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COMPUTER-AIDED RECOGNITION OF RP MONOPHTHONGS IN MONOSYLLABIC WORDS

INTRODUCTION

English, unlike Polish, has a highly complicated system of monophthongs: when it comes to recognize them and distinguish one from another, many of these, showing a number of qualitative features in common, e.g. /e/ and /æ/, or /ʌ/ and /a:/, do not offer an easy task even to the human ear. The number alone of the English vowel phonemes, being twice as large as that for the Polish system (12 and 6 respectively), contribute substantially to the complexity of the problem, so the computer-aided recognition was expected to present considerable difficulty. This work, inspired and supervised by professor Wiktor Jassem, assists a large-scale project launched by the Acoustic Phonetics Research Unit of the Polish Academy of Sciences in Poznań, and aims at masterminding a computer algorithm and parameters of the recognition of English monophthongs: the attempt itself being unprecedented (Jassem et al. 1980: 7). A vast scope of the task, executed by the Unit involved preparation of the spectrograms and the processing of the data which formed basis of the following.

1. Materials and measurements

The basic materials are here fifty monosyllabic words read in RP, at a natural speed, by three native English speakers: M, C and B (all male); following an assumption that individual persons differ in pronunciation (Jassem 1974a: 128–131), it seemed advisable to employ more than one speaker: for the sake of a statistically representative character of the research three sources of data will be the smallest acceptable number which can be

taken into account. Two sources (i.e. two speakers) are not sufficiently representative for the simple reason that possible intensification and pre-dominance of the features of one voice over the other may distort the balance and lead to an improper distribution of variables, viz. translocation of the results in favour of the predominant features.

The words are as follows: 1. teethe, 2. seethe, 3. tease, 4. teeth, 5. thief, 6. bib, 7. sieve, 8. zip, 9. thick, 10. this, 11. zed, 12. fez, 13. set, 14. death, 15. gag, 16. zag, 17. tag, 18. that, 19. pack, 20. cash, 21. dove, 22. thud, 23. buzz, 24. gush, 25. tough, 26. vase, 27. carve, 28. farce, 29. path, 30. bog, 31. dog, 32. cough, 33. shock, 34. daub, 35. cause, 36. court, 37. thorp, 38. good, 39. should, 40. push, 41. soot, 42. food, 43. soothe, 44. shoot, 45. goose, 46. curve, 47. serve, 48. shirk, 49. purse, 50. burp.

These were carefully selected to provide the same phonetic contexts for each vowel phoneme; all of them being monosyllabic, of the CVC structure. Plosives and fricatives were arranged in such a way that each shows in the initial as well as in the final position. Nearly half the consonants (43%) are lenis so the fortis/lenis opposition is evenly distributed. The vocalic sounds under study are monophthongs only, accepting that /i:/ and /u:/ are not to be treated as diphthongs (cf. Jassem 1971: 240–242, 251–252; 1974b: 55–56, 72–73); the /ə/ vowel is omitted since it does not occur in accented English CVC-type monosyllabic words. The analysis having been carried out using a Kay Electric Sona-Graph with wide filter, the measurements were made at 20 ms intervals of time (beginning at 0 ms, i.e. CV boundary) with an accuracy of 50 Hz: they were applied to $F1$ and $F2$, on the strength of a well-proved theory that these are highly informative for the description of monophthongs (cf. Jassem et al. 1972, 1976a: 120–122); cf. the procedures followed in Jassem et al. 1975, 1976b: 136–173 ("Recent investigations tend to support the well-established theory that the most economical description of vowel sounds is in terms of formant frequencies") and Steffen-Batóg 1976: 25.

2. Preconditions for the analysis of monophthongs

2.1. General course of action followed in the research

The general method adopted in this work and its chief objectives are as follows:

i. To establish universal parameters, regularities, ranges or classes for each of the eleven monophthongs (cf. "classification" below).

ii. To find out how the 150 readings of the monophthongs in the source materials fit in with the established classes and check on the accuracy of the recognition (cf. "recognition" and "identification" below).

iii. To anticipate possible errors, and on the strength of their value to speculate on (a) the possibility of offering a mathematical model for the computer recognition and on (b) effectiveness of recognition.

iv. To compare computer classification, recognition and identification with those obtained in the course of the categorical procedures and man-made calculations.

Recognition is performed in three stages, labelled: (1) "classification", i.e., the division of a sample space R into a number of non-intersecting areas $R_1, ..., R_m$ corresponding to general populations $\Pi_1, ..., \Pi_m$, such that if $x \in R_i$, an observation x is assigned to the population Π_i ($i = 1, ..., m$); (2) "recognition" (proper), the inclusion of every element of a given set into one of the previously established and defined classes; the set which the element actually belongs to not being known; (3) "identification", the process of assigning every element of a given set to one of these classes: the set, however, which the element belongs to, being known and thus permitting the estimation of the correctness of the recognition (cf. Jassem et al. 1972: 8–9; 1976: 108–109). This requires a variety of statistical procedures; these were later processed by the computer (for the sake of the economical description and low costs of processing part of the analysis, i.e., measurements, was performed by man; cf. Jassem et al. 1976b, 1980: 6).

2.2. Arrangement of the data

The data were arranged as bivariate observations, as shown fragmentarily below,

		F1:	350	450	400	400	400	400	400	
	M:	F2:	2000	2000	2000	2000	1800	1750	1700	
SIEVE	C:	F1:	350	400	450	450	450	400	400	400
	C:	F2:	1700	1750	1800	1850	1850	1750	1650	1550
	B:	F1:	350	400	400	400	450	450	450	400	350
	B:	F2:	1700	1750	1800	1800	1750	1700	1650	1600	1500

which satisfies the initial and fundamental operation in speech recognition: the designing of vowel areas framed by two co-ordinates, the abscissa for $F1$ and the ordinate for $F2$, both showing the values in increasing order (cf. Jassem et al. 1972: 38, 59; 1973: 191, 211; 1976b: 137; Caliński and Kaczmarek 1968: 50–51).

3. Further statistical procedures

3.1. Arithmetic mean and modal frequency

To show the distribution of the data and to trace marginal distributions, histograms were drawn for each monophthong (cf. Zamorski 1981): all monophthongs appeared to have a near-normal distribution, some of them being skewed slightly ($F1_{/i:/}$ or $F1_{/ʌ/}$), and others forming very narrow histograms, thus creating an expectancy for a good recognition (/a:/ or /ɔ:/).

All the $F1$ data of each of the eleven phonemes as read by the three voices were later collected so as to calculate the arithmetic mean for each of these phonemes. The procedure was then repeated for the $F2$ data, which resulted in eleven $F1$ and eleven $F2$ arithmetic means (see table 1.1). The means were calculated according to the formula:

$$\bar{x} = \frac{\sum\limits_{i=1}^{k} f_i x_i}{\sum\limits_{i=1}^{k} f_i},$$

where $\bar{x}$ is the arithmetic mean; x — variable of the general population; i — serial number of the class to which the discrete random variable belongs (cf. Zamorski 1981: 15–16); $i = 1, ..., k$; k — number of classes in the sample; x_i — value of discrete random variable X occurring in the class i; f_i — size of a class i; summation sign stands for the particular products of the multiplication added together as illustrated below (cf. Jassem et al. 1973: 299–300; Zając 1974):

$F1_{/i:/}$				
x_i(Hz)	i	f_i	$f_i x_i$	w_i
150	1	2	300	1.21
200	2	5	1 000	3.03
250	3	29	7 250	17.58
300	4	39	11 700	23.63
350	5	64	22 400	38.79
400	6	19	7 600	11.51
450	7	7	3 150	4.24
		165	53 400	100.00

$$\bar{x}_{F1} = \frac{53\,400}{165} = 323.64 \text{ Hz}$$

The same procedure, as has been mentioned, was applied to $F2$ of the /i:/ sound and to $F1/F2$ formants of the remaining vowels, the figures having been rounded up; w_i denotes relative frequency, i.e. participation of a given class in the population, expressed in % according to the formula

$$w_i = \frac{f_i}{n}.$$

On the basis of the relative frequencies histograms were drawn (cf. Zamorski 1981).

The advantage of a table like this is that it also shows modal frequencies; for the full list of these see table 1.2.

3.2. Null-hypothesis

By virtue of the arithmetic means a further study of the histograms was undertaken (cf. Zamorski 1981: 17–18): it aimed at defining the distribution in terms of standard deviation. This confirmed the hypothesis that the distributions were normal or near-normal, and so the material was considered to be representative. The observation was made on the score of the null-hypothesis (cf. Jassem 1973: 308–315) applied tentatively to those cases of a given phoneme which occurred on either side of the arithmetic mean, beyond the distance equal to three standard deviations (cf. Jassem 1973: 307). The results were obtained following the formula

$$S = \sqrt{\frac{\sum\limits_{i=1}^{k} f_i (x_6 i - \bar{x})^2}{k}}.$$

4. Recognition of the monophthongs

4.1. Classification

The whole process of recognition in general sense was extremely simplified and changed in many ways. Classification was replaced by the designing of a chart in which the expected values of $F1$ and $F2$ were put down; these were specified on the ground of the results obtained by Wells and by Arnold et al. (the former quoted in Gimson 1970: 98–99, the latter in Jassem 1980: 30); see table 1.1.

4.2. Recognition (proper) and identification

Recognition and identification were performed simultaneously: the origin of each two-element datum was known and each datum was assigned to one of the classes established in the course of the simplified classification. Recognition and identification were simplified, too: The two-element data used for these two processes were not the bivariates as obtained through the consecutive measurements at 20 ms intervals of time, but arithmetic means of the formant frequencies, which were additionally calculated for the individual vowels, separately for each speaker (altogether 150 two-element means). For example, the (ɪ) sound in 'sieve' as read by C had its eight bivariates (the duration of the sound: 140 ms) represented by one two-element mean ($F1$ — 412 Hz, $F2$ — 1737 Hz) which, compared with the ranges in table 1.1, turned out to fit in with the class (ɪ). The remaining 49 vowel sounds read by C were analysed in exactly the same way, and this procedure was then applied to sounds read by M and B; all the three analyses resulting in the design of confusion matrices (see tables 2.1–2.3).

4.3. Confusion matrices

i. Arithmetic-mean based matrices

These were designed to show the results of the recognition as obtained for each voice separately. The fourth matrix, combined for all voices, was additionally offered to give a wider view of the whole problem. The four matrices were assisted by two more, both for all voices: based on the modal frequencies, and the other based on the target frequencies.

The assumption that the recognition for the combined voices might not be as good as that for an individual one turned out to hold good (see tables 2.1–2.4): for M, 78 vowels per cent were recognized correctly; for C, 76%; for B, 74%; whereas combined recognition came out with 76% (arithmetic-mean based analysis). The above bears on the difference between speakers in the formant arrangements, comparison of the M values for the /æ/ sound with the C corresponding values for the same sound ($F1$ – 700 Hz, $F2$ – 1700 Hz and $F1$ – 800 Hz, $F2$ – 1450 Hz respectively) illustrating the point. The least correctly recognized sounds are: for M, /u/; for C, /æ/; for B, /ɔ, u, u:/; for the combined voices, /æ, ɔ, u, ɜ:/ (50% recognized correctly for the first in the sequence, 67% for each of the remaining); the best score falls on /i:/ (93% correct) and on /e, ɔ:/ (92% each); the results bear a relation to the histograms: high percentage of hits corresponding to narrow dispersions.

ii. Modal-frequency based matrices

The modal-frequency based confusion matrix was designed similarly as the arithmetic-mean based matrix: for each vowel sound (out of 50 read by a given voice) modal frequencies were selected for $F1$ and for $F2$ to form an $F1/F2$ observation (cf. table 1.1). This procedure was applied to each voice successively and the results for each phoneme were eventually summed up to give a confusion matrix for the combined voices (see table 3).

The score for all voices is less satisfactory: only 71 'hits' per cent, /i:/ showing the best record (93%) and thus getting ahead of /ı, ʌ/ (87% each) while the least effective being /ɔ, e/ (42% and 50% respectively). The /e/ sound shows two extremely different results, for the arithmetic-mean design (92% correct) and for the modal frequency (58% correct); the two approaches being set together, certain regularities, however, become conspicuous: some vowels /i:, ɔ:/ are easier to recognize, while others (/ɔ/) fare quite badly, thus implying some additional parameters to be taken into account and allowances to be made in the investigation on the computer-aided speech analysers.

iii. Target-frequency based matrices

These matrices were obtained in exactly the same way as the previous ones, with the exception of one modification: this time target $F1$ and $F2$ frequencies of each vowel sound (out of 50 read by a given speaker) were found and compared with the established ranges (cf. 3.1 above). This resulted

in a confusion matrix for a given voice; the scores in the three matrices being summed up, the fourth one was obtained for the combined voices (see table 4). The matrix seems to bear out the point: /i:/ once again with the best outcome, as well as /ɑ:/ (100% correct both), while /ɔ/ with the poorest score (8%). A complete list as obtained by way of these three methods shows recognition effectiveness for the combined voices in decreasing order (per cent):

	Arithmetic-mean based identification		Target-frequency based identification		Modal-frequency based identification	
vowel						
1.	/i:/	93	/i:/	100	/i:/	93
2.	/e/	92	/ɑ:/	100	/ı/	87
3.	/ɔ:/	92	/ʌ/	87	/ʌ/	87
4.	/ı/	87	/u/	84	/ɔ:/	84
5.	/ʌ/	80	/u:/	84	/u:/	84
6.	/ɑ:/	75	/ɔ:/	83	/u/	75
7.	/u:/	75	/ı/	73	/ɑ:/	67
8.	/ɔ/	67	/æ/	61	/ɜ:/	67
9.	/u/	67	/e/	58	/æ/	56
10.	/ɜ:/	67	/ɜ:/	53	/e/	50
11.	/æ/	50	/ɔ/	8	/ɔ/	42

5. Computer analysis
5.1. Mathematical models

The mathematical models for the fully automatic recognition were offered in Jassem et al. 1972, 1976a, 1980, their final results being accepted in this paper, while the computer programs as well as the technical details of the computer processing were worked out and described in Jassem et al. 1975, 1976b. The source materials were again the $F1$ and $F2$ bivariate data which were fed into the computer, the pinched data being at the same time printed out so that the accuracy of the punching could be verified: before it embarked on the recognition-aimed processing, the computer did some basic statistical calculations (see Jassem et al. 1980 and Zamorski 1981) which do not fall into line with the man-calculated figures, owing to a considerable rounding-up process in the case of the latter.

5.2. Introductory remarks on dispersion and variance, and on their impact on the recognition effectiveness

Effectiveness of recognition and identification seems to be determined above all by dispersion and distances. Dispersion, here defined by variance, indicates the distribution of all the $F1$ and $F2$ data of a given phoneme. The $F1$ ranging from 100 Hz to 1000 Hz, and covering as many as eleven

monophthongs, it can easily be judged that the cases of one monophthong should occur, if there were no overlaps, in the ranges of approximately 90 Hz only. This, however, is not so: a number of the cases representing the same vowel phoneme may show in ranges wider than 90 Hz, thus overlapping the area of another monophthong. For example, the measurement of the /ɪ/ sound in the word 'zip' read by B showed, at $t = 0$ ms (the beginning of the vowel duration), $F1 - 250$ Hz; whereas for the vocalic element in 'zip' read by C, at $t = 80$ ms, $F1$ arrives at the value of 600 Hz: a simple subtraction $(600-250 = 350)$ shows that one and the same vowel phoneme may have its first formant occurring in ranges wider than 90 Hz. This might be explained by a considerable formant deflection at $t = 80$ ms (for C), but when it comes to comparing the arithmetic means of the two realizations of the /ɪ/ phoneme the difference is still great: 458 Hz (C) $-$ 308 Hz (B) $= 150$ Hz.

It follows therefore that the greater the dispersion the lesser the probability of correct recognition. By distance is understood the difference between the means of two adjacent, i.e. successive in the IPA system, vowel phonemes[1]; considering the measuring accuracy of 50 Hz, there is no actual difference between some vocalic sounds, e.g. $F1$ of /ʌ/ and /ɑː/ for M are 651 and 655 (Hz) respectively; though the corresponding $F2$ values differ, there is good reason to believe that the recognition of the two sounds may present some difficulties. This being so, a tentative investigation in this field was made, and the variances, as well as the arithmetic means, of each monophthong read by one speaker were compared with the values of the corresponding monophthongs read by the remaining two: in both approaches (the arithmetic means and the variances) C turned out to produce the best results, i.e. on average, the smallest variances and the biggest distances; it would seem therefore justifiable to presume that the most effective recognition should be obtained for voice C (for more details see Zamorski 1981).

5.3. Vowel-area maps

This speculation could only be supported after having designed vowel-area maps. Each map was defined by two orthogonal axes: the horizontal one standing for the $F1$ values, the vertical one for the $F2$ values; the calibration units, marked at every 50 Hz, divided the area into squares corresponding to 50 Hz intervals, which proceeded from the measuring accuracy (cf. Jassem et al. 1975: 14–15, 46–51; 1976b: 138). See tables 6.1–6.4.

Four maps, three separate ones for each voice and one combined, offered the following observations. M has relatively regular areas for each phoneme, save for the /ɔ/ sound having the intrusion of the /ɑː/ area, which may

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[1] Cf. the notion of the *statistical distances* indicating the distance between the mean vectors (Jassem et al. 1972: 70–72; 1976a: 125–126).

presumably lead to a confusion of minimally contrastive pairs, e.g. 'lock' and 'lark'. In terms of the distinctive features the two differ qualitatively in one respect only: /ɑː/ is described as back-advanced and open, /ɔ/ as back and open. Neither does modern phonology (cf. Sommerstein 1977) allow a clear distinction, the opposition between the two being that of tense/lax and non-flat/flat only. From the point of view of the probably most important oppositions, compact/diffuse and grave/acute, the two vowels show no contrasting properties. The other two vowels having their areas overlapped are /ʌ/ and /ɑː/; both exhibit the same relevant feature in common: open, and they contrast in the relation of the tongue to the pharyngeal wall, i.e. in being back-advanced (the former) and front (the latter). Voice C has the most satisfying map, though vowels /ʌ/ and /ɑː/ have their areas intertwined. The map for voice B is the most complicated: the areas of vowels are highly irregular, many of them overlapping one another. The regions of /ʌ/ and /ɔ/ criss-cross each other, and both are split by the /ɑː/ area, implying a certain deterioration in recognition; the upper region of /uː/ intrudes upon the /ɪ/ area, though there are a number of oppositions between them: grave/acute, flat/non-flat, tense/lax, and according to Sommerstein 1977 the contrasts involve: height 3/4, $+/-$ back, $+/-$ round, $+/-$ long, i.e. all possible oppositions in the classificatory matrix.

5.4. Recognition

Two-element observations of a given vowel sound were classified in one of the three vowel-area maps (M, C, B) according to by which speaker the vowel sound was read. Consequently, each observation was assigned to, depending on the $F1/F2$ values, one of the eleven areas in the map. This resulted in a sequence of printouts showing how each observation was recognized (see table 7); e.g. B's vowel in the word 'zip' had the $F1/F2$ values (250, 1550), (250, 1550), (300, 1600), (350, 1650), (350, 1700) and (350, 1700) recognized as /uː, uː, ɪ, ɪ, ɪ, ɪ/, which lead to the overall recognition of the sound as /ɪ/. For computer processes, however, the eleven monophthongs were designated by figures as follows: 1. /iː/, 2. /ɪ/, 3. /e/, 4. /æ/, 5. /ʌ/, 6. /ɑː/, 7. /ɔ/, 8. /ɔː/, 9. /u/, 10. /uː/, 11. /ɜː/; so the printout of the recognition of the two-element observations was a sequence of figures or, strictly speaking, segments (10, 10, 2, 2, 2, 2), the overall recognition of the vowel in question being (2). This could only be done after certain provisions had been made in the computer algorithm: in the case of a sequence not being homogeneous, i.e. not having phonemically identical segments the computer would decide in favour of the longest succession of identical segments (cf. the above analysis of the /ɪ/ vowel). If, however, the whole sequence appeared to consist of two groups of phonemically identical segments, both being equal to each other in number (i.e. length), the decision was taken in favour of the segments

occurring in a longer succession or in favour of that succession, should the case be, of two homogeneous ones of equal length, which comes last. This proceeds from an assumption that of the two consonants in the CVC-type word the first one exerts much greater an impact on the deflections of vowel formants. For example, the /ɔ/ sound in the word 'shock' read by C had the $F1/F2$ observations recognized as (9, 9, 9, 6, 6, 7, 7, 7, 8, 8), in which there appear two homogeneous successions of equal length: (9, 9, 9) and (7, 7, 7). The whole sequence/sound was eventually recognized as (7), i.e. /ɔ/ (cf. Jassem et al. 1975: 15–17; 1976b: 139–143).

5.5. Identification

The processed material being printed out, the last stage was launched to check up on the effectiveness of the recognition: identification. This consisted in correlating the outcome figures for the recognized (classified) sounds with the source material, which subsequently rendered it possible to design three confusion matrices for each speaker individually and one for the combined voices (see Zamorski 1981).

i. Voice M

The monophthongs read by M (see table 5.1) allowed quite a satisfactory recognition score: 74% properly recognized, the best results being obtained for /i:/, /ɪ/, /æ/, /ɑ:/ and /ɔ:/ (100% correct each). It was anticipated that /ɑ:/ and /ɔ:/, having the smallest dispersion, should have the best recognition score, whereas /i:/, owing to a greater than average dispersion, and to the fact that it tends to be diphthongized, was not expected to be an easy task to handle with in terms of numerical expressions. The computer score is strikingly good for /æ/, in spite of the fact that both /e/ and /æ/ display a number of features in common, e.g. a relevant one: front; and differ in the degree of opening only, the former being mid, and the latter half-open; which shows the diffuse/compact opposition corresponding to the only contrasting property in Sommerstein's classificatory matrix: that of height (2/1). It was confirmed that /ɔ/ and /ʌ/ are difficult to analyse: only 25% correct the former, 40% the latter. The /ɜ:/ sound has the worst score (20% correct), being confused twice with /ʌ/ and once with /e/ and /ɔ/, which is explicable in terms of the /ɜ:/ vowel being neutral and mid (cf. Jassem 1974b: 69–70), and thus sharing, in Sommerstein's classificatory matrix, a number of distinctive features with other monophthongs: height 2 (like /e, ɔ:/), back (like /ʌ, ɑ:, ɔ, u, u:/), round (like /ɔ, ɔ:, u, u:/) and long (like /i:, ɑ:, ɔ:, u:/); its area bordering on practically all areas of the vowel system, excluding /i:, ɑ:, ɔ:/.

ii. Voice C

Voice C (see table 5.2) stands out for its best recognition score (76%), having /i:, e, ɑ:, ɔ:, u/ faultlessly classified (0% mistakes). The least satisfactory

are /ʌ/ and /ɪ/ (20% and 40%, respectively), the former owing to a very wide dispersion, the latter, however, inexplicable: the closest, in terms of the statistical distances, /i:/ and /e/ being 100% correct, the vowel cannot have been confused with these; neither was it confused with /ɜ:/.

iii. Voice B

The recognition of voice B (see table 5.3) resulted in 74% being correct, five vowels being accurately classified: /i:, ɪ, ɑ:, ɔ:, u/. The case of /u:/ being recognized as /ɪ/ is striking: although the vowel displays features of a diphthong, with its first formant going slightly downwards and the second one dropping even more rapidly, the inconsiderable deflection of the two is not likely to exercise an influence on the outcome. Here is a complete list of the identification scores for each voice (cf. confusion matrices 5.1–5.3) (per cent):

M		C		B	
/i:/	100	/i:/	100	/i:/	100
/ɪ/	100	/e/	100	/ɪ/	100
/æ/	100	/ɑ:/	100	/ɑ:/	100
/ɑ:/	100	/ɔ:/	100	/ɔ/	100
/ɔ:/	100	/u/	100	/u/	100
/e/	75	/ɜ:/	80	/æ/	83
/u/	75	/ɔ/	75	/ɜ:/	80
/u:/	75	/u:/	75	/e/	75
/ʌ/	40	/æ/	67	/u:/	50
/ɔ/	25	/ɪ/	40	/ɔ/	25
/ɜ:/	20	/ʌ/	20	/ʌ/	20

iv. Predictions as to the effectiveness of the combined voices

The identification scores for each of the eleven monophthongs were then summed up and divided by three (the number of voices), e.g. the scores for /e/ were added together (75% /M/ + 100% /C/ + 50% /B/ = 225%) and divided by three (225%: 3 = 75%) which gave the average identification score for this vowel. These calculations were made by man. The average scores for all the eleven monophthongs produced a new configuration of the phonemes in terms of the recognition effectiveness. This tentative procedure was applied to make some predictions as to the effectiveness of the combined recognition (i.e. based on the parameters universal for all the three voices). The vowels were arranged according to the decreasing percentage of 'hits': /i:, ɑ:, ɔ:/ (100%), /u/ (92%), /æ/ (83%), /ɪ/ (80%), /e/ (75%), /u:/ (67%), /ɜ:/ (60%), /ɔ/ (42%), /ʌ/ (27%). The first three sounds support the expectation that monophthongs requiring extreme tongue positions and having narrow dispersion are the easiest to recognize.

On looking closer at the three matrices, a tendency can be discerned: most vowels were confused, owing to the smallest distances, with their

minimally contrastive counterparts, e.g. /e/ with /æ/, /ɔ/ with /ɔ:/, etc. It is also characteristic that /e, æ, ʌ/ were often confused with the central /ɜ:/ and vice versa. Two vowels were confused with more than one phoneme: /e/ with both /ɪ/ and /æ/, /ɔ/ with /ɑ:/ and /ɔ:/. Many vowels show extremely different scores, depending on the speaker: /ɪ/ has the recognition effectiveness 100% for M and B, but only 40% for C (who, incidentally, has the best record of 'hits' for the remaining phonemes); /ɜ:/ was only 20% correct for M, whereas for C and B it was 80%, which implies that recognition depends by no means on the quality of a sound only, but on the individual voices as well. The average score for the three speakers is 74.7%.

v. Combined voices

The final inferences were, however, to be drawn from the combined confusion matrix based on the computer processed combined area map. To this effect the computer processed the data once again: not in terms of individual voices, but in terms of the universal parameters allowing the recognition system to be operated by more than one speaker. The vowel-area map came out less satisfactory than the maps for the individual voices; the areas for /ɪ, e, ʌ, ɔ/ either overlap or intrude upon one another remarkably, thus making the sounds liable to mutual confusion; the remaining sounds having their spaces considerably distorted, too. The identification seems to have confirmed an assumption that the vowels requiring extreme tongue positions are less difficult to identify: two vowels (/i:/ and /ɔ:/) are noticeable by having 100 cases per cent recognized correctly. Next in order are: /ɑ:, u, ɜ:, æ/ (92% 75% 73% 72% respectively), /ɔ/ and /ʌ/ being the least effectively recognized (25% and 13%). The /ɜ:/ sound, being a central vowel, has a strikingly good score: 73%. Remarkable is the case of the /u/ vowel: it was faultlessly recognized for C and B, and only once confused with /u:/ for M, while for the combined recognition it was confused with /u:/ (which is explicable in terms of the distinctive features) and with /ɔ/, which is due to the spaces bordering on each other. A further anomaly concerns /ɪ/, /e/ and /ʌ/: the last two were confused with /ɜ:/, on account of their centralized nature, but /ɪ/ and /e/ were additionally confused with /u:/. As long as this can be accounted for by the /ɪ/, /e/ and /u:/ spaces bordering on one another, the confusion within the pair /ʌ/ — /u/ finds no explanation on account of the two areas lying apart in the computer designed vowel-area map. The list below shows the combined voices identification scores in decreasing order:

/i:/ (100%), /ɔ:/ (100%), /ɑ:/ (92%), /u/ (75%), /ɜ:/ (73%), /æ/ (72%), /u:/ (58%), /ɪ/ (53%), /e/ (42%), /ɔ/ (25%), /ʌ/ (13%).

The total recognition rate for the combined voices is 64%.

CONCLUSIONS

It is possible to analyse human speech in terms of numerical expressions: qualitative features of RP monophthongs can be converted into figures on the ground of the previously made spectrograms. A suitable system of data arrangement is the bivariate system providing two co-ordinates for the vowel-area map; this is due to the first two formants being the most informative on the quality of monophthongs. The space of a given monophthong, as delimited in the vowel-area map, depends on the $F1/F2$ dispersion of the cases. This bears a relation to the arithmetic means of the vowels: the two together determine overlaps of the spaces; the arithmetic means marking, at the same time, the distances between vowels, indicate a possible confusion rate. Vowels characterized by extreme tongue positions are easier to identify than the centralized ones. The correct decisions in the process of the identification range, for each voice separately, from 74% to 76%; the score for the combined voices is lower by 10% implying that some phonemes show inconsistent acoustic parameters, depending on the individual voice.

Tabele 1.1. Observed mean frequencies of the vowels as compared with the results obtained by Wells and Arnold et al.

Vowel	Average for M/C/B		Wells and Arnold et al.	
	$F1$	$F2$	$F1$	$F2$
1.	324	2178	280–315	2200–2620
2.	426	1791	360–380	2200–2220
3.	523	1683	570–600	2060–2100
4.	630	1638	800–940	1750–1760
5.	613	1334	760–960	1320–1750
6.	654	1196	720–740	1150–1180
7.	593	1135	560–720	920–980
8.	484	920	480–620	760–920
9.	396	1257	380–500	940–1150
10.	338	1246	250–320	800–920
11.	537	1425	550–560	1480–1900

Table 1.2. F1/F2 model frequencies: average for all voices

Vowel	F1	F2
1.	350	2250
2.	400	1750
3.	550	1650
4.	650	1500
5.	700	1250
6.	700	1200
7.	650	1150
8.	500	800
9.	400	1250
10.	300	1300
11.	550	1350

Table 2.1. Confusion matrix based on the F1/F2 arithmetic means: voice M

SPOKEN

		iː	ɪ	e	æ	ʌ	ɑː	ɔ	ɔː	u	uː	ɜː
R	iː	4	1									
E	ɪ	1	4									
C	e			4	2							1
O	æ				4							
G	ʌ					5						1
N	ɑː						3	1				
I	ɔ						1	3	1			
Z	ɔː								3			
E	u									2		
D	uː									2	4	
	ɜː											3

	iː	ɪ	e	æ	ʌ	ɑː	ɔ	ɔː	u	uː	ɜː	
correctly	4	4	4	4	5	3	3	3	2	4	3;	Σ 39 = 78%
wrongly	1	1	0	2	0	1	1	1	2	0	2;	Σ 11 = 22%
correctly %	80	80	100	67	100	75	75	75	50	100	60;	$\bar{x} = 78.4\%$
wrongly %	20	20	0	33	0	25	25	25	50	0	40;	$\bar{x} = 21.6\%$

Table 2.2. Confusion matrix based on the F1/F2 arithmetic means: voice C

SPOKEN

		iː	ɪ	e	æ	ʌ	ɑː	ɔ	ɔː	u	uː	ɜː
R	iː	5										
E	ɪ		4									
C	e		1	4	1							
O	æ				1							
G	ʌ					3	4					2
N	ɑː					1	1	3	1			
I	ɔ							1	3			
Z	ɔː									4		
E	u										4	1
D	uː											3
	ɜː											3

	iː	ɪ	e	æ	ʌ	ɑː	ɔ	ɔː	u	uː	ɜː	
correctly	5	4	4	1	4	3	3	4	4	3	3;	Σ 38 = 76%
wrongly	0	1	0	5	1	1	1	0	0	1	2;	Σ 12 = 24%
correctly %	100	80	100	17	80	75	75	100	100	75	60;	$\bar{x} = 78.4\%$
wrongly %	0	20	0	83	20	25	25	0	0	25	40;	$\bar{x} = 21.6\%$

Table 2.3. Confusion matrix based on the $F1/F2$ arithmetic means: voice B

SPOKEN

		i:	ɪ	e	æ	ʌ	ɑː	ɔ	ɔ:	u	u:	ɜ:
R	i:	5										
E	ɪ		5	1							1	
C	e			3	1							
O	æ				4							
G	ʌ					3						1
N	ɑː						3	1				
I	ɔ					1	1	2				
Z	ɔ:							1	4			
E	u					1				2	1	
D	u:									2	2	
	ɜ:				1							4

	i:	ɪ	e	æ	ʌ	ɑː	ɔ	ɔ:	u	u:	ɜ:	
correctly	5	5	3	4	3	3	2	4	2	2	4;	$\Sigma 37 = 74\%$
wrongly	0	0	1	2	2	1	2	0	2	2	1;	$\Sigma 13 = 26\%$
correctly %	100	100	75	80	60	75	50	100	50	50	80;	$\bar{x} = 74.5\%$
wrongly %	0	0	25	20	40	25	50	0	50	50	20;	$\bar{x} = 25.5\%$

Table 2.4. Confusion matrix based on the $F1/F2$ arithmetic means: combined for all voices

SPOKEN

		i:	ɪ	e	æ	ʌ	ɑː	ɔ	ɔ:	u	u:	ɜ:
R	i:	14	1									
E	ɪ	1	13	1							1	
C	e		1	11	4							1
O	æ				9							
G	ʌ				3	12						4
N	ɑː				1	1	9	3				
I	ɔ					1	3	8	1			
Z	ɔ:							1	11			
E	u					1				8	2	
D	u:									4	9	
	ɜ:				1							10

		i:	ɪ	e	æ	ʌ	ɑː	ɔ	ɔ:	u	u:	ɜ:	
correctly		14	13	11	9	12	9	8	11	8	9	10;	$\Sigma 114 = 76\%$
wrongly		1	2	1	9	3	3	4	1	4	3	5;	$\Sigma 36 = 24\%$
individual voices:													
	M	4	4	4	4	5	3	3	3	2	4	3;	$\Sigma 39$
correctly	C	5	4	4	1	4	3	3	4	4	3	3;	$\Sigma 38$
	B	5	5	3	4	3	3	2	4	2	2	4;	$\Sigma 37$
	M	1	1	0	2	0	1	1	1	2	0	2;	$\Sigma 11$
wrongly	C	0	1	0	5	1	1	1	0	0	1	2;	$\Sigma 12$
	B	0	0	1	2	2	1	2	0	2	2	1;	$\Sigma 13$

Table 3. Confusion matrix based on modal frequencies: for all voices

SPOKEN

		i:	ɪ	e	æ	ʌ	ɑ:	ɔ	ɔ:	u	u:	ɜ:
R	i:	14	1									
E	ɪ	1	13	2							1	
C	e		1	6	2							1
O	æ			2	10							
G	ʌ				3	13	4	1				4
N	ɑ:				1	1	8	5				
I	ɔ					1		5				
Z	ɔ:								10			
E	u							1	2	9	2	
D	u:									3	9	
	ɜ:			2	2							10

	i:	ɪ	e	æ	ʌ	ɑ:	ɔ	ɔ:	u	u:	ɜ:	
correctly	14	13	6	10	13	8	5	10	9	9	10;	$\Sigma\,107 = 71.3\%$
wrongly	1	2	6	8	2	4	7	2	3	3	5;	$\Sigma\,43 = 28.7\%$
correctly %	93	87	50	56	87	67	42	84	75	84	67;	$\bar{x} = 72\%$
wrongly %	7	13	50	44	13	33	58	16	25	16	33;	$\bar{x} = 28\%$

Table 4. Confusion matrix based on target frequencies: for all voices

SPOKEN

		i:	i	e	æ	ʌ	ɑ:	ɔ	ɔ:	u	u:	ɜ:
R	i:	15	1									
E	i		11								1	1
C	e		3	7								
O	æ			4	11							
G	ʌ				5	13						6
N	ɑ:				2	2	12	10				
I	ɔ							1	2			
Z	ɔ:							1	10			
E	u									10	1	
D	u:									2	10	
	ɜ:		1									8

	i:	i	e	æ	ʌ	ɑ:	ɔ	ɔ:	u	u:	ɜ:	
correctly	15	11	7	11	13	12	1	10	10	10	8;	$\Sigma\,108 = 72\%$
wrongly	0	4	5	7	2	0	11	2	2	2	7;	$\Sigma\,42 = 28\%$
correctly %	100	73	58	61	87	100	8	83	84	84	53;	$\bar{x} = 71.9\%$
wrongly %	0	27	42	39	13	0	92	17	16	16	47;	$\bar{x} = 28.1\%$

Table 5.1. Computer-aided recognition confusion matrix based on the $F1/F2$ bivariates: voice M

SPOKEN

		i:	i	e	æ	ʌ	ɑ:	ɒ	ɔ:	u	u:	ɜ:
R	i:	5										
E	i		5									
C	e			3								1
O	æ			1	6							
G	ʌ					2						2
N	ɑ:					3	4	3				
I	ɒ							1				1
Z	ɔ:								4			
E	u									3	1	
D	u:									1	3	
	ɜ:											1

	i:	i	e	æ	ʌ	ɑ:	ɒ	ɔ:	u	u:	ɜ:	
correctly	5	5	3	6	2	4	1	4	3	3	1;	$\Sigma 37 = 74\%$
wrongly	0	0	1	0	3	0	3	0	1	1	4;	$\Sigma 13 = 26\%$
correctly %	100	100	75	100	40	100	25	100	75	75	20;	$\bar{x} = 73.6\%$
wrongly %	0	0	25	0	60	0	75	0	25	25	80;	$\bar{x} = 26.4\%$

Table 5.2. Computer-aided recognition confusion matrix based on the $F1/F2$ bivariates: voice C

SPOKEN

		i:	i	e	æ	ʌ	ɑ:	ɒ	ɔ:	u	u:	ɜ:
R	i:	5										
E	i		2									
C	e		3	4	2							
O	æ				4							
G	ʌ					1						1
N	ɑ:					3	4	1				
I	ɒ							3				
Z	ɔ:								4			
E	u									4	1	
D	u:										3	
	ɜ:					1						4

	i:	i	e	æ	ʌ	ɑ:	ɒ	ɔ:	u	u:	ɜ:	
correctly	5	2	4	4	1	4	3	4	4	3	4;	$\Sigma 38 = 76\%$
wrongly	0	3	0	2	4	0	1	0	0	1	1;	$\Sigma 12 = 24\%$
correctly %	100	40	100	67	20	100	75	100	100	75	80;	$\bar{x} = 77.9\%$
wrongly %	0	60	0	33	80	0	25	0	0	25	20;	$\bar{x} = 22.1\%$

Table 5.3. Computer-aided recognition confusion matrix based on the $F1/F2$ bivariates: voice B

SPOKEN

RECOGNIZED	i:	i	e	æ	ʌ	ɑ:	ə	ɔ:	ʊ	u:	ɜ:
i:	5										
i		5	1							1	
e			2								
æ				5							
ʌ					1						1
ɑ:					3	4	2				
ə							1				
ɔ:							1	4			
ʊ					1				4	1	
u:										2	
ɜ:			1	1							4

	i:	i	e	æ	ʌ	ɑ:	ə	ɔ:	ʊ	u:	ɜ:	
correctly	5	5	2	5	1	4	1	4	4	2	4:	$\Sigma\,37 = 74\%$
wrongly	0	0	2	1	4	0	3	0	0	2	1:	$\Sigma\,13 = 26\%$
correctly %	100	100	50	83	20	100	25	100	100	50	80:	$\bar{x} = 73.5\%$
wrongly %	0	0	50	17	80	0	75	0	0	50	20:	$\bar{x} = 26.5\%$

Table 5.4. Computer-aided recognition confusion matrix based on the $F1/F2$ bivariates: combined for all voices

SPOKEN

RECOGNIZED	i:	i	e	æ	ʌ	ɑ:	ə	ɔ:	ʊ	u:	ɜ:
i:	15	3	3								
i		8	1								1
e		3	5	1							1
æ			3	13	1						
ʌ				2	2						2
ɑ:					10	11	8				
ə							3		2	1	
ɔ:							1	12			
ʊ									9	4	
u:		1							1	7	
ɜ:				2	2	1					11

	i:	i	e	æ	ʌ	ɑ:	ə	ɔ:	ʊ	u:	ɜ:	
correctly	15	8	5	13	2	11	3	12	9	7	11:	$\Sigma\,96 = 64\%$
wrongly	0	7	7	5	13	1	9	0	3	5	4:	$\Sigma\,54 = 36\%$
correctly %	100	53	42	72	13	92	25	100	75	58	73:	$\bar{x} = 63.9\%$
wrongly %	0	47	58	28	87	8	75	0	25	42	27:	$\bar{x} = 36.1\%$

Table 6.1. Vowel-area map: computer classification for M

```
F2
(Hz)  1  1  1  1  1  1  1
      1  1  1  1  1  1  1
2800  1  1  1  1  1  1  1
      1  1  1  1  1  1  1
2700  1  1  1  1  1  1  1
      1  1  1  1  1  1  1
2600  1  1  1  1  1  1
      1  1  1  1  1  1
2500  1  1  1  1  1  1  1  1
      1  1  1  1  1  1  1  1
2400  1  1  1  1  1  1  1  1
      1  1  1  1  1  1  1  1
2300  1  1  1  1  1  1  1  1  2  2  2
      1  1  1  1  1  1  1  1  2  2  2
2200  1  1  1  1  1  1  1  2  2  2  2
      1  1  1  1  1  1  2  2  2  2  3  3
2100  1  1  1  1  1  2  2  2  2  2  3  3  3
      1  1  1  1  2  2  2  2  2  3  3  3  3
2000  9  1  2  2  2  2  2  3  3  3  3  3
      9  9  2  2  2  2  2  3  3  3  3  3
1900  9  9  2  2  2  2  3  3  3  3  4  4
      9  9  2  2  2  2  3  3  3  4  4  4
1800  9  9  9  2  2  2  2  3  3  4  4  4  4
      9  9  9  9  2  2  2  3  3  3  4  4  4  4
1700  9  9  9  9  9  9  11 11 3  3  4  4  4  4
      9  9  9  9  9  9  11 11 11 11 4  4  4  4  4  4
1600  9  9  9  9  9  9  11 11 11 11 5  5  4  4  4  4
      9  9  9  9  9  9  9  11 11 11 5  5  5  4  4  4  4  4  4  4
1500  9  9  9  9  9  9  9  11 11 11 5  5  5  4  4  4  4  4  4  4
      9  9  9  9  9  9  9  11 11 11 5  5  5  5  4  4  4  4  4  4
1400  9  9  9  9  9  9  9  11 7  7  5  5  5  5  4  4  4  4  4
      9  9  9  9  9  9  9  11 7  7  7  5  5  5  5  4  4  4  4
1300  9  9  9  9  9  9  9  9  7  7  7  6  6  6  6  5  4  4  4  4
      9  9  9  9  9  9  9  8  8  7  7  6  6  6  5  5  5  4  4  4
1200  9  9  9  9  9  9  9  8  8  7  6  6  6  6  5  5  5  5  4  4  4
      9  9  9  9  10 9  8  8  8  6  6  6  6  5  5  5  5  4  4  4
1100  9  9  9  10 10 10 9  8  8  8  6  6  6  5  5  5  5  5  5  4
      9  9  9  10 10 10 9  8  8  8  6  6  7  7  5  5  5  5
1000  9  9  10 10 10 10 9  8  8  8  6  6  7  7  5  5  5  5
      9  9  10 10 10 10 8  8  8  8  6  7  7  7  7  5  5
 900  9  10 10 10 10 10 8  8  8  8  8  7  7  7  7  7
      9  10 10 10 10 10 8  8  8  8  7  7  7  7
 800  10 10 10 10 10 10 8  8  8  8  8  8  7  7
      10 10 10 10 10 10 8  8  8  8  8  8  5
 700  10 10 10 10 10 10 8  8  8  8  8  8
      10 10 10 10 10 10 8  8  8  8
 600  10 10 10 10 10 10 8  8  8  8
      10 10 10 10 10 10 8  8  8
 500  10 10 10 10 10 10 8  8
      10 10 10 10 10 10 8
 400  10 10 10 10 10 10

      100  200  300  400  500  600  700  800  900  1000
                                                    F1 (Hz)
```

Table 6.2. Vowel-area map: computer classification for C

```
F2
(Hz)  1  1  1  1  1  1  1
      1  1  1  1  1  1  1
2800  1  1  1  1  1  1  1
      1  1  1  1  1  1  1
2700  1  1  1  1  1  1  1
      1  1  1  1  1  1  1
2600  1  1  1  1  1  1
      1  1  1  1  1  1
2500  1  1  1  1  1  1  1  1  1
      1  1  1  1  1  1  1  1  1
2400  1  1  1  1  1  1  1  1
      1  1  1  1  1  1  1  1
2300  1  1  1  1  1  1  1  1  1  2  2
      1  1  1  1  1  1  1  1  2  2  2
2200  1  1  1  1  1  1  1  1  2  2  2
      1  1  1  1  1  1  1  1  2  2  2  2  2
2100  1  1  1  1  1  1  1  2  2  2  2  2
      1  1  1  1  1  1  1  2  2  2  2  2
2000  1  1  1  1  1  1  1  2  2  2  2  3
      1  1  1  1  1  1  2  2  2  2  2  3  3
1900  1  1  1  1  1  1  2  2  2  2  3  3
      1  1  1  1  1  2  2  2  2  3  3  3  4  4
1800  1  1  1  1  2  2  2  2  3  3  3  4  4
      2  1  1  2  2  2  2  2  3  3  3  3  4  4
1700  2  2  2  2  2  2  2  2  3  3  3  4  4  4
      2  2  2  2  2  2  2  3  3  3  4  4  4  4
1600  2  2  2  2  2  2  2  3  3  3  3  4  4  4  4
      2  2  2  2  2  2  2  3  3  3  4  4  4  4  4  4  4  4  4
1500  2  2  2  2  2  2  2  3  3  3  4  4  4  4  4  4  4  4  4
      2  2  2  2  10 10 9  9  11 11 11 11 4  4  4  4  4  4  4  4  4
1400  2  10 10 10 10 10 9  9  11 11 11 11 5  4  4  4  4  4  4  4
      10 10 10 10 10 10 9  9  11 11 11 11 5  5  4  4  4  4  4  4
1300  10 10 10 10 10 10 9  9  9  11 11 11 5  5  4  4  4  4  4  4
      10 10 10 10 10 10 9  9  9  11 6  6  6  6  5  4  4  4  4  4
1200  10 10 10 10 10 10 9  9  9  9  7  6  6  6  6  4  4  4  4  4
      10 10 10 10 10 10 9  9  7  7  7  6  6  6  6  4  4  4  4
1100  10 10 10 10 10 10 8  8  7  7  7  7  7  7  7  4  4  4
      10 10 10 10 10 10 8  8  8  7  7  7  7  7  7  7  4  4  4
1000  10 10 10 10 10 8  8  8  8  8  7  7  7  7  7  7  7  4
      10 10 10 10 10 8  8  8  8  8  8  7  7  7  7  7  7
 900  10 10 10 10 8  8  8  8  8  8  8  7  7  7  7
      10 10 10 10 8  8  8  8  8  8  8  7  7  7  7
 800  10 10 10 10 8  8  8  8  8  8  8  8  7  7
      10 10 10 8  8  8  8  8  8  8  8  8  7
 700  10 10 10 8  8  8  8  8  8  8  8  8
      10 10 8  8  8  8  8  8  8  8
 600  10 10 8  8  8  8  8  8  8
      10 10 8  8  8  8  8  8
 500  10 8  8  8  8  8  8  8
      10 8  8  8  8  8  8
 400  10 8  8  8  8  8

      100  200  300  400  500  600  700  800  900  1000
                                                    F1 (Hz)
```

Table 6.3. Vowel-area map: computer classification for B

```
F2
(Hz)   1  1  1  1  1  1  1
       1  1  1  1  1  1  1
2800   1  1  1  1  1  1  1
       1  1  1  1  1  1  1
2700   1  1  1  1  1  1  1
       1  1  1  1  1  1  1
2600   1  1  1  1  1  1  1
       1  1  1  1  1  1  1
2500   1  1  1  1  1  1  1  1  1
       1  1  1  1  1  1  1  1  1
2400   1  1  1  1  1  1  1  1  1
       1  1  1  1  1  1  1  1
2300   1  1  1  1  1  1  1  1  1  1  1
       1  1  1  1  1  1  1  1  1  1  1
2200   1  1  1  1  1  1  1  1  1  1  10
       1  1  1  1  1  1  1  1  1  1  4   4   4
2100   1  1  1  1  1  1  1  1  4  4  4   4
       1  1  1  1  1  1  1  1  4  4  4   4
2000   1  1  1  1  1  1  1  1  4  4  4   4
       1  1  1  1  1  1  1  2  4  4  4   4
1900   1  1  1  1  1  1  1  2  2  2  4   4
       1  1  1  1  1  1  2  2  2  2  4   4   4  4
1800   1  1  1  1  1  2  2  2  3  4  4   4   4
       1  1  1  1  2  2  2  2  3  4  4   4   4
1700   1  1  1  2  2  2  2  3  3  4  4   4   4
       1  1  2  2  2  2  2  3  3  3  4   4   4  4  4  4
1600   10 2  2  2  2  2  10 3  3  3  4   4   4  4  4  4  4
       10 10 10 10 10 10 3  3  3  4  4   4   4  4  4  4  4  4  4  4
1500   10 10 10 10 10 10 3  11 11 11 4   4   4  4  4  4  4  4  4  4
       10 10 10 10 10 10 3  11 11 11 11  4   4  4  4  4  4  4  4  4
1400   10 10 10 10 10 10 10 11 11 11 11  5   5  4  4  4  4  4  4  4
       10 10 10 10 10 10 9  11 11 11 11  5   5  5  7  7  7  7  4  4  4
1300   10 10 10 10 10 9  9  9  5  11 5   5   5  7  7  5  5  5  5
       10 10 10 10 9  9  9  9  5  5  5   6   6  6  7  5  5  5  5  5
1200   10 10 10 10 9  9  9  9  5  6  6   6   6  6  6  5  5  5  5  5
       10 10 10 10 9  9  9  9  7  6  6   6   6  6  6  5  5  5  5  5
1100   10 10 10 9  9  9  9  9  7  7  7   6   6  6  6  5  5  5  5
       10 10 10 9  9  9  9  8  8  7  7   7   7  7  5  5  5  5  5
1000   10 10 10 9  9  9  9  8  8  7  7   7   7  7  5  5  5  5
       10 10 10 9  9  9  8  8  8  7  7   7   7  5  5  5
900    10 10 9  9  9  9  8  8  8  8  7   7   7  7  5  5
       10 10 9  9  9  8  8  8  8  8  7   7   7  5
800    10 10 9  9  9  8  8  8  8  8  8   7   5
       10 10 7  7  8  8  8  8  8  8  8   8
700    10 7  7  7  8  8  8  8  8  8  8
       7  7  7  7  8  8  8  8  8  8  8
600    7  7  7  7  8  8  8  8  8
       7  7  7  7  8  8  8  8  8
500    7  7  7  7  8  8  8  8
       7  7  7  8  8  8  8
400    7  7  7  8  8  8

       100  200  300  400  500  600  700  800  900  1000
                                                          F1 (Hz)
```

Table 6.4. Vowel-area map: computer classification for the combined voices

```
F2
(Hz)   1  1  1  1  1  1  1
       1  1  1  1  1  1  1
2800   1  1  1  1  1  1  1
       1  1  1  1  1  1  1
2700   1  1  1  1  1  1  1
       1  1  1  1  1  1  1
2600   1  1  1  1  1  1  1
       1  1  1  1  1  1  1
2500   1  1  1  1  1  1  1  1  1
       1  1  1  1  1  1  1  1  1
2400   1  1  1  1  1  1  1  1  1
       1  1  1  1  1  1  1  1  1
2300   1  1  1  1  1  1  1  1  1  2
       1  1  1  1  1  1  1  1  2   2
2200   1  1  1  1  1  1  1  1  2   2
       1  1  1  1  1  1  1  2  2   2   2   3   3
2100   1  1  1  1  1  1  1  2  2   2   3   3   3
       1  1  1  1  1  1  1  2  2   2   3   3   3
2000   1  1  1  1  1  1  2  2  2   2   3   3   3
       1  1  1  1  1  1  2  2  2   3   3   3   3
1900   1  1  1  1  1  2  2  2  2   3   3   3   4
       1  1  1  1  1  2  2  2  2   3   3   4   4   4   4
1800   1  1  1  1  2  2  2  2  3   3   3   4   4   4   4
       1  1  1  2  2  2  2  3  3   3   4   4   4   4
1700   2  2  2  2  2  2  2  3  3   3   4   4   4   4
       2  2  2  2  2  2  2  3  3   3   4   4   4   4   4   4
1600   2  2  2  2  2  2  2  3  3   3   4   4   4   4   4   4
       2  2  10 10 10 10 10 3  11  11  4   4   4   4   4   4   4   4   4   4   4
1500   2  10 10 10 10 10 10 11 11  11  11  4   4   4   4   4   4   4   4   4   4
       10 10 10 10 10 10 9  11 11  11  11  5   4   4   4   4   4   4   4   4   4
1400   10 10 10 10 10 9  9  11 11  11  11  5   5   5   4   4   4   4   4   4   4
       10 10 10 10 10 9  9  9  11  11  11  5   5   5   5   4   4   4   4   4   4
1300   10 10 10 10 10 9  9  9  11  11  5   6   6   5   5   4   4   4   4   4
       10 10 10 10 10 9  9  9  7   7   6   6   6   6   5   5   4   4   4   4
1200   10 10 10 10 10 9  9  9  7   7   6   6   6   6   6   5   5   4   4   4
       10 10 10 10 10 9  9  9  7   7   6   6   6   6   6   5   5   4   4   4
1100   10 10 10 10 10 10 9  8  8   7   7   6   6   6   5   5   5   5   4   4
       10 10 10 10 10 10 9  8  8   7   7   7   7   7   7   5   5   5   5
1000   10 10 10 10 10 10 8  8  8   8   7   7   7   7   7   5   5   5
       10 10 10 10 10 10 8  8  8   8   7   7   7   7   7   5
900    10 10 10 10 10 10 8  8  8   8   7   7   7   7   7
       10 10 10 10 10 10 8  8  8   8   7   7   7   7   7
800    10 10 10 10 10 10 8  8  8   8   8   7   7   7
       10 10 10 10 10 10 8  8  8   8   8   7   7
700    10 10 10 10 10 8  8  8  8   8   8   7
       10 10 10 10 10 8  8  8  8   8
600    10 10 10 10 10 8  8  8  8
       10 10 10 10 10 8  8  8  8
500    10 10 10 10 10 8  8  8
       10 10 10 10 10 8  8
400    10 10 10 10 10 8

       100  200  300  400  500  600  700  800  900  1000
                                                          F1 (Hz)
```

Table 7. Identification matrix: voice B

Vowel	Word	Recognition of each bivariate	The decision of the computer
1	teethe	1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 2, 2.	1
	seethe	2, 2, 2, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 2,	1
	tease	2, 2, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 2,	1
	teeth	1, 1, 1, 1, 1, 1, 1,	1
	thief	10, 2, 1, 1, 1, 1, 1, 1, 1, 1,	1
2	bib	2, 2, 2, 2, 2, 2, 2, 2, 10,	2
	sieve	2, 2, 2, 2, 2, 2, 3, 10, 10,	2
	zip	10, 10, 2, 2, 2, 2,	2
	thick	2, 2, 2, 2, 2, 1,	2
	this	2, 2, 2, 2, 2, 2, 2,	2
3	zed	10, 10, 9, 10, 11, 11, 11, 4, 4, 3, 3,	11
	fez	11, 11, 3, 3, 3, 3, 2, 2, 2, 2, 2, 2,	2
	set	10, 10, 10, 3, 3, 3, 3,	3
	death	3, 3, 4, 4, 4, 3, 3, 3,	3
4	gag	2, 2, 3, 4, 4, 4, 4, 4, 4, 4, 4,	4
	zag	3, 11, 11, 11, 4, 4, 4, 4, 4, 4, 4,	4
	tag	3, 4, 4, 4, 4, 4, 4, 4, 4, 4,	4
	that	11, 11, 11, 11, 4, 4, 4, 11,	11
	pack	4, 4, 4, 4, 4, 4, 3, 3, 2,	4
	cash	3, 4, 4, 4, 4, 4, 3, 3,	4
5	dove	2, 10, 5, 6, 6, 6, 6, 5, 9,	6
	thud	5, 5, 5, 6, 6, 6, 6, 5, 11, 3,	6
	buzz	5, 5, 6, 6, 5, 5, 9, 9, 9, 9,	9
	gush	3, 4, 4, 5, 5, 5, 5, 5.	5
	tough	5, 5, 6, 6, 7, 8,	6
6	vase	5, 5, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 5, 5, 5, 6, 5,	6
	carve	5, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 7,	6
	farce	6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 5, 5,	6
	path	6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6,	6
7	bog	8, 8, 7, 7, 7, 7, 7, 7, 7, 7,	7
	dog	5, 6, 8, 8, 8, 8, 8, 8, 8, 8, 8,	8
	cough	6, 6, 6, 6, 6, 6,	6
	shock	5, 6, 6, 6, 6, 6, 6, 7,	6
8	daub	11, 5, 6, 7, 7, 7, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8,	8
	cause	8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 9, 9, 9, 9,	8
	court	8, 7, 8, 7, 8, 8, 8, 8, 8, 8, 8, 7.	8
	thorp	9, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8,	8
9	good	9, 9, 9, 9, 9, 9, 9, 9,	9
	should	2, 11, 5, 7, 9, 9, 10, 11,	9
	pust	9, 9, 8, 9, 9, 2,	9
	soot	9, 9, 9, 9, 9, 9,	9
10	food	11, 11, 3, 3, 3, 11, 9, 9, 9, 10, 10, 3, 3,	9
	soothe	10, 3, 11, 3, 10, 10, 10, 10, 10, 10, 10, 10, 10,	10
	shoot	1, 1, 2, 2, 2, 2,	2
	goose	2, 3, 10, 10, 10, 10, 10, 10,	10
11	curve	10, 3, 11, 11, 11, 11, 11, 11, 11, 5, 5, 5, 5, 5, 5, 5, 5,	5
	serve	9, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11,	11
	shirk	2, 2, 2, 10, 11, 11, 11, 11, 11, 11, 11,	11
	purse	11, 3, 11, 11, 4, 11, 11, 4, 11, 11, 11, 11,	11
	burp	11, 11, 5, 11, 11, 11, 11, 11, 5, 5, 5, 11,	11

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MICHAŁ POST

SOME ARGUMENTS IN SUPPORT OF A LEXICAL-INTERPRETIVE APPROACH TO DENOMINAL ADJECTIVES

I. INTRODUCTION

The major claim of the present paper is that any linguistic analysis of denominal adjectives that takes as a starting point the assumption that they express a finite set of meanings is bound to fail. The contents of this paper is believed to provide convincing evidence in support of this view.

To achieve the goal specified in the opening paragraph, it should be demonstrated that (a) the semantics of denominal adjectives is so intricate that (b) currently available meaning-based theories of denominal adjectives necessarily offer inadequate descriptions of these intricacies (cf. Ljung 1970, Kastovsky 1974, Levi 1976, 1978). In the present paper we shall be concerned only with the problem signalled in (a) above; the problems mentioned in (b) will be discussed elsewhere (cf. Post 1986).

Since this paper falls within the domain of specific theoretical contrastive language studies (cf. Fisiak 1973 for the distinction), English and Polish being the languages involved, we find it appropriate to characterize briefly (i) the status of denominal adjectives in the grammars of these two languages, and (ii) the contribution of Polish and English scholars to the solution of problems mentioned in (a) and (b) above. Both these issues will have bearing on the contents and final conclusions of the present paper.

We wish to emphasize the fact that the parallelism of general semantic properties displayed by English and Polish denominal adjectives by no means implies their equal status in the grammars of the two languages. Just the opposite. The areas of grammar where the two languages involved differ are derivational morphology and syntax. Many linguists have noted that the formation of denominal adjectives has quite a different status in the derivational systems of the Slavic and Germanic languages. Malkiel (1977: 347) says that "English, unlike a Slavic or Romanic language is hardly in need of strictly relational [denominal, M. P.] adjectives because this service is pro-

vided in a typical Germanic language by all sorts of compositional and juxtapositional devices". Sussex (1974: 121) says that "adjectives [...] in particular Slavonic adjectives, are highly productive as a derived class. They reveal little idiosyncracy of formation outside of morphological factors". A recent work by Szymanek (1981) supports this opinion demonstrating that the derivation of denominal adjectives in Polish is indeed a categorial process, i.e. practically any Polish noun may be transposed by means of a suitable derivational suffix into a related denominal adjective [1]. In English, the quoted work shows, the situation is radically different because of two factors: (i) more specific and more powerful constraints on derivation operate, and (ii) the transposition of a noun into an attributive element is normally achieved not by means of suffixation, but rather by compounding. In other words, in English morphological noun performs the attributive function. The fact that English employs compounding where Polish uses denominal adjectivalization has an important consequence for the present work; a lot of semantic insights made for English attributive N + N compounds will also be valid for denominal adjectives. In Levi (1976, 1978) this suggestion is explicitly made for English N + N and Adj + N nominals. The correctness of this view is proved by Polish translations of English attributive N + N compounds; the attributive N in such constructions is always rendered by a denominal adjective, as in the following examples taken from Marton (1970: 65):

(1) | steam boat | statek parowy |
    | jet plane | samolot odrzutowy |
    | hydrogen bomb | bomba wodorowa |
    | sail boat | łódź żaglowa |
    | coal stove | piec węglowy |

It appears then that, although the formation of denominal adjectives is not a frequently employed device in English, still one observes that a vast number of the non-native nouns in English can be subjected to the process of deriving denominal adjectives (cf. Marchand 1969, Kastovsky 1974, Levi 1976, 1978, Szymanek 1981) [2]. Accordingly, the need of isolating the category

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[1] Naturally, constraints and exceptions operate in both languages. Szymanek's dissertation is *in toto* devoted to discovering and describing phonological and morphological constraints on the formation of denominal adjectives in English and Polish. One of his discoveries is that more specific and more powerful constraints affect the derivation of English denominal adjectives.

[2] In semantically based descriptions of denominal adjectives (Kastovsky 1974, Levi 1978) native, Germanic nouns which do not have corresponding derived adjectives are regularly matched with the suppletive adjectives of Romanic origin, e.g. *city—urban, bird—avian, moon —lunar, mind—mental, cat—feline*, etc. Levi (1978: 128) says of such cases that "morphological similarity [...] between the noun and the corresponding adjective [...] is neither a necessary nor a sufficient condition for choosing the correct adjectival counterpart". In her analysis, the suppletive adjectives are derived from semantic structures part of which also underlie their matching native nouns.

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of denominal adjectives from among the English complex adjectives is both possible and justified.

As regards the complexities of meaning characteristic of denominal adjectives, they have been studied in both languages (cf. Ljung 1970, Heinz 1956, 1957a, b), but it is in Polish grammar that one finds a coherent general linguistic theory of meaning of denominal adjectives. We mean here the impressive work of Heinz (1956, 1957a, b). In section 2 of the present work we will demonstrate that certain assumptions of Heinz's theory are valid both for Polish and English denominal adjectives. As far as the general linguistic theory suitable for a description of denominal adjectives is concerned, we believe that English grammar has much more to offer than Polish grammar, despite the evident limitations of the theories employed in the recent accounts of English denominal adjectives (case grammar in Kastovsky 1974; generative semantics in Ljung 1970 and Levi 1976, 1978). In view of this we suggest that a linguistic theoretical framework for denominal adjectives in English and Polish should combine certain aspects of Heinz's general semantic theory of denominal adjectives with one of currently available generative theories of grammar. We shall argue further below that it is the Extended Standard Theory that is compatible with Heinz's views. An outline of such an integrational theoretical framework for denominal adjectives will terminate the present work.

2. THE SEMANTICS OF DENOMINAL ADJECTIVES

In this part of our work it will be demonstrated that denominal adjectives are contextuals in the sense of Clark and Clark (1979), i.e. they have shifting sense and denotation. As a corollary, it will be claimed that the currently held view that denominal adjectives are multiply ambiguous between a small finite number of sense (cf. Levi 1978) cannot be maintained.

2.1. Denominal adjectives as a vacillating category

According to Heinz (1956: 258) the semantic function of denominal adjectives is determined by two factors: (1) their morphological structure, and (2) their syntactic (attributive) function. Accordingly, any semantic theory of denominal adjectives has to consider these two aspects. Denominal adjectives represent a combination of a noun (*child, lalka* 'doll') with a suffix (*-ish, -owat-*): *childish, lalkowaty* 'dollish'. Here the suffixes *-ish* and *-owat-* mean 'resemble, like'. It follows from the morphological structure of such adjectives that (a) their meaning should be a function of the meaning of the base noun, and that (b) the relation between such adjectives and their head nouns actually holds between the base noun and the head noun; e.g. *mąż brodaty* 'bearded man' describes the connection between the head noun *mąż* 'man'

and the base noun *broda* 'beard' plus the semantic/syntactic modification brought about by the suffix *-aty*. The validity of this latter observation has been recognized by most Polish and English scholars (cf. Gawełko 1976, Grzegorczykowa 1979, Kastovsky 1974, Levi 1978). Transformationalists made it even an obligatory condition that both base noun and head noun be present in underlying structures in appropriate syntactic and/or semantic function, and processed simultaneously by appropriate syntactic rules (cf. Kastovsky 1974, Levi 1976, 1978).

An important implication following from the syntactic (attributive) function of denominal adjectives is that despite the transparency of their nominal bases they have to express the meaning of quality, because the primary semantic function of the adjective is to denote qualities found in substances[3]. In conclusion, Heinz (1956: 258) indicates that due to the morphological and syntactic peculiarities of denominal adjectives, discussed above, their meaning is in fact a function of an interplay between two conflicting forces which he calls "the object trait" (*moment przedmiotowy*) — the awareness of denominal derivation, and "the qualitative trait" (*moment jakościowy*) — the output of the derivation is an attribute.

The logical consequence of this observation is that the denominal adjective, as a category, vacillates in its semantic function between the function of the inflectional case (i.e. relation) and that of an unmotivated (underived) adjective (i.e. quality) (Heinz 1957b: 70). Heinz's suggestion can be visualized as a relation-quality axis at one extreme of which there are inflectional forms of nouns and certain prepositional phrases, i.e. the most typical means used to express the meaning of "pure" relation between two nouns (e.g. *place robotników* 'workers' wages', *butelka ze szkla* 'bottle (made) of glass', *dom ojca* 'father's house', *kolega ze szkoly* 'friend from school'). Corresponding denominal adjectives are close to them in terms of semantics; their meaning is identical with or approximating the meaning of inflectional or prepositional forms (cf. *place robotnicze, szklana butelka, ojcowy dom, szkolny kolega*)[4]. At the opposite extreme of the relation-quality axis unmotivated adjectives are located, which regularly convery the meaning of "pure" quality, with no reference to any nominal object or concept, as the corresponding noun

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[3] It is assumed in traditional grammar that nouns denote entities, verbs — actions, and adjectives — qualities. In other words, the traditional definitions of the parts of speech presuppose the possibility of identifying entities, actions, qualities, relations, etc., independently of the way in which these are referred to or denoted in particular languages. For the inapplicability of such definitions cf. Jespersen (1924) and Lyons (1977).

[4] Heinz (1957b: 64) points out that there may be subtle differences in the semantics of a case form and a corresponding denominal adjective. The speaker uses a case form when he intends and is able to name a given relationship in a precise and unambiguous way; otherwise, when he does not intend, or is not able to say clearly what sort of a relationship obtains between two objects — he uses a denominal adjective.

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simply does not exist in such cases (cf. *suchy piasek* 'dry sand', *roztropny chlopiec* 'clever boy'). Upon such an interpretation, certain denominal adjectives with a strongly qualitative tinge come close to unmotivated adjectives; their semantic reference to the formally motivating noun has secondary significance (cf. *wilgoć* 'moisture' — *wilgotny piasek* 'damp sand', *mąż* 'man' — *mężne serce* 'brave heart', *olbrzym* 'giant' — *olbrzymie kroki* 'gigantic steps', *owoc* 'fruit' — *owocna praca* 'successful work', *serce* 'heart' — *serdeczne powitanie* 'warm welcome').

The support for Heinz's discovery of the objective/qualitative trait dichotomy and the vacillation of the denominal adjective between the meanings of relation and quality consists in its explanatory power. Once the theory is accepted, numerous properties of denominal adjectives get a natural explanation. Let us enumerate some of these peculiarities.

Firstly, it has been observed (cf. for instance Grzegorczykowa 1979: 67) that denominal adjectives are frequently non-specified or receive different context-dependent specifications, just the opposite to what transformationalists claim. In extreme cases, the semantics of two denominal adjectives may be different to the extent that one of them denotes "pure" relationship between two objects (e.g. *cenowy* 'of prices' in *struktura cenowa* 'structure of prices') whereas the other defines a "pure" quality (e.g. *cenny* 'valuable' in *cenny objekt* 'valuable object'). In terms of the dichotomic distinction proposed by Heinz this would mean that the object trait takes precedence over the qualitative trait, or vice versa.

Secondly, Heinz's theory explains why numerous denominal adjectives, in different contexts, i.e. with different head nouns, may take one of the two extreme semantic values, i.e. may appear either with relational meaning (e.g. *problem religijny* 'problem of religion') or with the qualitative meaning (e.g. *religijny człowiek* 'religious man'). This property stems from the fact that the semantics of almost any denominal adjective entails two competing, though complementary elements: the relational element (object trait) and the qualitative element (qualitative trait). Hence the border line between the meaning of relation and quality in adjectives of this type is unstable, also in the sense that usually the two elements coexist in individual adjectives in different proportions as potential meanings to be activated with different force depending on the accompanying noun. Just for this reason Maciusowicz (1977) argues that there are numerous formations of a "mixed" type in that they display some formal/semantic properties of both relational and qualitative expressions. He defines them as "relational-qualitative adjectives" which "having a relational function, are also used as qualitative adjectives" (Maciusowicz 1977: 165) (e.g. the adjective *śnieżny* 'snowy' is a relational adjective in *śnieżna zaspa* 'snow-drift', but is qualitative in *śnieżna zima* 'snowy winter').

Thirdly, the theory explains the difficulty connected with proper distinguishing of the semantic function performed by case forms, and/or preposi-

tional constructions and the corresponding denominal adjectives on the one hand, and on the other — the fact that there is no sharp demarcation line, in terms of semantics, between the typically qualitative unmotivated adjectives and those denominal adjectives whose primary content is also that of quality.

Fourthly, the presence of the object trait in the semantics of denominal adjectives ensures their distinction from unmotivated "purely" qualitative adjectives. On the other hand, the qualitative trait distinguishes denominal adjectives from inflectional case and prepositional expressions.

2.1.1. The meaning of quality and the meaning of relation

It follows from the above that the most specific and typical meanings of denominal adjectives are the meaning of relation and the meaning of quality; they follow directly from their morphological structure and syntactic function respectively. It is relatively easy to explain why denominal adjectives should express essentially the same information as inflectional case and prepositional expressions; as has been noted above, the connection of the denominal adjective with the modified noun is in fact the connection between the base of this adjective and the head. It is less easy, however, to specify the factor(s) that endow denominal adjectives with the qualitative tinge, so that they are able to perform their primary semantic function, i.e. to attribute a quality to a substantive. Below we present two views on this issue, viz. a diachronic one held by Kurowska (1954), Gawełko (1976), Marchand (1966) and a synchronic approach of Heinz's (1956, 1957b). Although the adherents of the two approaches discuss denominal adjectives on different planes, their interpretations are compatible, in our opinion, and together they offer a convincing explanation of the qualitativization of denominal adjectives.

According to the diachronic view overtly expressed in Gawełko (1976: 17–18) their fundamental function is to transpose nouns to the category of adjective. The newly formed derived adjective is purely relational, close to inflectional case in meaning. Then it acquires various shades of meaning which for some time accompany the principal relational meaning, later to overshadow it, and purge it altogether. Viewed from a diachronic perspective, the denominal adjective undergoes a process of lexicalization, the essence of which is a gradual semantic change from the meaning of relation to the meaning of quality. The change on the semantic plane is often accompanied by the disappearence of formal motivation.

In Marchand (1966: 139) we find an actual example illustrating the diachronic interpretation. The adjective *childish* in *childish curls* offers an example of a relational adjective becoming a qualitative one. Marchand observes that the relational sense is the earliest recorded (Old English). The second stage in the lexicalization of the adjective *childish* was the addition of an element of negative judgement.

In the same article, Marchand suggests that a synchronic description of denominal adjectives should also recognize the two stages distinguished in diachronic approach. He observes that the meaning of *criminal* in *criminal law* has relational meaning, i.e. 'law deals with crime'. In *criminal action* 'action is a crime' the adjective *criminal* is not a mere rendering of the noun *crime* to the category adjective, but acquired additional semantic features paraphrasable as 'this is a bad thing, this must be condemned as immoral'. What is important here is that an element of judgement concerning the relation is added which causes the original relational (transpositional) adjective *criminal* to become a qualitative one [5]. Marchand openly admits that the two processes discussed illustrate Kuryłowicz's (1936) syntactic and lexical derivations respectively [6].

The above diachronic explanation of how denominal adjectives become qualitative has one serious drawback when viewed from a synchronic point of view. The drawback, in our opinion, lies in the directionality of the process, i.e. gradual transfer from necessarily relational meaning to qualitative meaning. The approach does account for the existence of relational denominal adjectives, and the adjectives of the "mixed" relational-qualitative type. However, it hardly explains the vacillation of individual denominal

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[5] The dichotomic division of denominal adjectives into relational and qualitative is generally recognized and applied in Polish grammar (cf. Gawełko 1976, Grzegorczykowa 1979, Szymanek 1981). To our knowledge, the two terms have been used explicitly with reference to English word formation only by Malkiel (1977). Instead, the terms transpositional denominal adjective and semantic denominal adjective are commonly used in English for the same dichotomic distinction (cf. Marchand 1966). The distinction is in fact made in many other languages as well although referred to with different labels. For example Marchand (1966:132) informs that the Geneva School of Linguistics recognized two distinct classes of denominal adjectives, i.e. relational and qualifying. An extensive list of reference related to the distinction is found in Gawełko (1976).

[6] According to Kuryłowicz (1936) the derivation of complex words involves two steps: syntactic derivation and lexical derivation. The first step involves a change in the syntactic category of part of speech. The second step involves a change of lexical meaning. Consider the following examples:

(→ stands for syntactic derivation; ↓ stands for lexical derivation)

Fr. *rouge'* 'red' → ↓ *(le)rouge* '(the)rouge'
                         substantivized adj
                    (le)rouge 'red lipstick'
                         noun

At the first stage (syntactic derivation) the adjective *rouge* is substantivized, retaining its lexical content. At the second stage (lexical derivation) the substantivized adjective develops new meaning, i.e. it becomes a noun meaning 'red lipstic'. Kuryłowicz suggests that the substantivized adjective is in fact the derivational basis of the noun, not the adjective. A similar interpretation is assigned to Polish abstract nouns, which, according to Kuryłowicz, are derived from predicative adjectives rather than attributive adjectives:

być wysoki → ↓ *wysokość* 'property of having height"
                  wysokość 'vertical dimension'

adjectives between the meaning of relation and the meaning of quality. Individual adjectives may enter into a number of different relationships with various nouns. For example the adjective *stalowy* in *drut stalowy* 'steel wire' — substance; *przemysł stalowy* 'steel industry' — complex relationship 'branch of industry dealing with the production and processing of steel'; *stalowe nerwy* 'nerves of steel' — similarity (metaphorically with a qualitative tinge). As observed before, there are also numerous denominal adjectives which may take on one of the extreme semantic values, i.e. may appear either with the relational function (e.g. *problem religijny* 'problem of religion') or with the qualitative function (e.g. *religijny człowiek* 'religious man'). Cases like these pose a real problem for the diachronic view, they find explanation, however, in a synchronic approach proposed in Heinz (1957b).

Heinz's view is radically different from that of Gawełko and Marchand who assume that the denominal adjective acquires its qualitative tinge by addition of a semantic element to the already present relationship. According to Heinz (1957b:76) denominal adjectives specify the quality of the modified noun by relating it to some other object denoted by the base noun (e.g. *studencka czapka* 'student's cap', *drewniany stół* 'wooden table', *kuchenne naczynia* 'kitchen utensils'). They inform that some relationship holds between pairs of objects named by the head and the base: *student* and *czapka* 'student — cap', *drzewo — stół* 'wood — table', *kuchnia — naczynia* 'kitchen utensils'. The relationship is not named directly here as in inflectional case or prepositional expressions, but is realized by the hearer only marginally, against the formal presumption that it should be opaque. That the relationship is of secondary importance is evidenced by the fact that even adjectives with strong object tinge, i.e. relational adjectives, display certain degree of vagueness and unspecificity. Heinz concludes that qualitativization of denominal adjectives, on the semantic plane, amounts to reduction (*redukcja*) and obliteration (*zatarcie*) of the content of the relationship (Heinz 1956:260).

The degree of obliteration and reduction may be different with individual adjectives, but they are always present. The reduction consists in the decrease of content of the relationship with a simultaneous increase of its semantic scope. The so called "generally relational adjectives" (Grzegorczykowa 1979) represent this case; they are devoid of any definite contents whatsoever; what is left is a wide scope of application. The obliteration involves overshadowing of the basic relationship by some other semantic relation. The nature of the process is secondary, and its basis is some definite relationship. The obliteration is well exemplified by the so called systematically ambiguous denominal adjectives (cf. Levi 1978, Post 1985).

The extreme case of reduction and obliteration holds when the users of the language are no longer aware of the connection of the adjective with its base noun; i.e. they are no longer aware of formal and semantic motivation.

In such a case, the adjective passes to the category of simple, nonderived words, whose motivation can only be discovered on etymological grounds.

We have suggested above that the diachronic and synchronic approaches are compatible. In our opinion it is mainly due to the fact that they are both based on the same property, i.e. on the vacillation of the denominal adjective between the meaning of relation and the meaning of quality. Both approaches recognize the fact that relational meaning is primary, and that the change to the meaning of quality essentially consists in obliteration of the relationship holding between the base noun and the head noun. The diachronic and synchronic approaches differ as to the time span in which the obliteration takes place. They are also different in that they focus on and emphasize different aspects of this obliteration, i.e. the acquisition of an additional semantic element, and the shift of the head noun respectively. According to the synchronic approach the same denominal adjective may get different semantic specification, i.e. relational, qualitative, "mixed", in the context of different head nouns. It will be our purpose in the next section to examine the interaction of denominal adjectives with the contexts in which they occur.

2.2. The contextual meaning of denominal adjectives

In actual use denominal adjectives express a wide range of specific meanings. Currently there are two views on this issue. One group of linguists, like Levi (1978), claim that denominal adjectives are ambiguous between multiple but manageable number of senses. Adherents of the second view maintain that in fact the number of senses is endless (Heinz 1957b, Booij 1979), because their meaning is context dependent, and the number of contexts possible for denominal adjectives is in principle infinite. Their fundamental assumption is that the interpretation of denominal adjectives is not completely determined by their morphological structure, but is the result of an interaction between this structure and context (Heinz 1956, 1957b, Booij 1979)[7]. Heinz (1957a:98) distinguishes between two types of context: (1) immediate context (*kontekst bliższy*), i.e. the head noun, (2) further context (*kontekst dalszy*), i.e. the rest of the utterance.

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[7] Levi (1978:237) admits that a complete description of complex nominals (i.e. Adj + N, N + N) should include not only syntactic facts but also a description of broader pragmatic principles that determine the ways in which both speakers and hearers employ complex nominals in actual discourse. The task of these pragmatic principles, according to Levi, is to reduce the multiple ambiguity and inherent vagueness of complex nominals.

The relevance of the head noun for the establishing of the intended sense has been recognized by numerous grammarians in both languages (cf. Grzegorczykowa 1979, Smółkowa, Tekiel 1977, Kastovsky 1974, Levi 1978), and illustrated convincingly, so we shall not go into details now but refer the reader to indicated literature. Instead, we shall concentrate on the contribution of the further context to the interpretation of denominal adjectives. The importance of this type of context has been recognized by Heinz (1957:99) who admits that without the knowledge of it one is frequently unable to grasp the intended sense of a given adjective. However, he did not develop this idea in any detail.

The examples given below, taken from Kurkowska (1953:86–87), illustrate the indispensability of the further context, i.e. of the printed text, in establishing the intended sense. Consider the adjectives *brązowy* 'bronze', *małpi* 'monkey-like', *rogaty* 'with horns'. If we restrict the analysis to their immediate contexts, i.e. their heads, *dyskusja brązowa* 'bronze discussion' *małpi proces* 'monkey trial' *rogaty bankiet* 'horn banquet' what we can safely say is only that the discussion is somehow related to bronze, the trial is somehow related to monkey(s), and that the party is somehow related to horns. The exact nature of these connections, however, is not clear. The situation changes radically when the three NPs occur in their utterances, i.e. in their printed text:

(2) W swojej książce *Brązownicy* Boy określa dyskusję nad tym, czy Mickiewicz ma być dla nas żywym człowiekiem, czy posągiem z brązu
— dyskusją brązową.
'In his book *Brązownicy* Boy labelled the controversy over the question whether we should treat Mickiewicz as a living human being or as a statue made of bronze, a bronze discussion'.

(3) Niezbyt dawny słynny "małpi proces" w Stanach Zjednoczonych wytoczony nauczycielowi za to, że wykładał o pochodzeniu człowieka w duchu ewolucjonizmu darwinowskiego.
'A recent famous monkey trial in the USA, that is, a lawsuit against a teacher who had lectured on the origin of man in the spirit of Darwin's theory of evolution'.

(4) Love zamierza zaprosić [...] przedstawicielki [...] krowiej rasy na bankiet [...] Ma podobno dużo kłopotu z zaangażowaniem kelnerów dla tego rogatego bankietu.
'Love intends to invite [...] a representation of cows to a banquet. They say that it is rather difficult for him to hire waiters for this horn banquet'.

It appears that in the interpretation of denominal adjectives we also apply non-linguistic (encyclopaedic) knowledge (cf. Booij 1979, Levi 1978). In the following two sentences, taken from recent volumes of the *Newsweek*

magazine, we find the adjective *hawkish*, which outside of any context would be most likely associated with the meaning of similarity, resemblance: 'like a hawk', 'like that/those of a hawk'. However, when used, this meaning commonly associated with denominal adjectives derived from animal bases will be of no help in the interpretation, as is evidenced by the following two examples:

(5) Major oil companies finally balked at paying Libya's hawkish prices, forcing Kaddafi to slash his rates in order to keep the oil money flowing in.

(6) The dismissal of Gene Rostow, a hawkish Democrat who wasn't hawkish enough for some Republicans, left Reagan's arms-control apparatus badly shaken.

In order to interpret the adjective *hawkish* in the first sentence one has to know that the English speakers associate conventionally with the kind of bird denoted by the base noun *hawk* such stereotyped characteristics as merciless robber, etc. The interpretation of *hawkish* in the second example requires a still different kind of knowledge, i.e. one has to know a good deal about political life and political affairs in the USA. To recognize the intended sense of *hawkish* one has to be familiar with distinction made between "hawks" and "doves", that the former term normally being associated with the Republicans and the latter with the Democrats. Finally, the interprete should know that to be a "hawk" implies that one is a hard-liner, tough, radical and conservative in dealing with political matters.

The kind of information needed to assign appropriate senses to the adjective *hawkish* in the above examples is evidently non-linguistic knowledge, and as such should not be part of the semantic specification of the lexical entry for the adjective *hawkish*, but rather part of the encyclopaedia entry in the mental encyclopaedia (cf. Clark and Clark 1977 on the mental lexicon and the mental encyclopaedia).

A somewhat different example of the role of non-linguistic knowledge in the interpretation of denominal adjectives is found in Levi (1978:160). In a financial column of the *Chicago Sun-Times* the NP *vehicular vermin* appeared. Out of context it could be assigned a locative interpretation like 'vermin in vehicle'. In proper context, however, a locative sense was anomalous, given the fact that the subject of the column was a proposed automobile plant to be build in the United States, and the full sentence was:

(7) If VW decides to gestate its vehicular vermin here, they would come from anywhere.

The use of *vehicular vermin* in the sense 'vehicles which are vermins', and its interpretation depends not only on the context provided by the printed text, but also the reader's extralinguistic knowledge. Without this knowledge, it is unlikely that the reader would be able to associate with this NP the same interpretation that the writer intended.

Two conclusions follow from the preceding paragraphs. One is that the context for the interpretation of denominal adjectives should be understood in an extended sense, for example along the lines suggested by Stalnaker (1972: 383) as "the intentions of the speaker, the knowledge, beliefs, expectations, or interests of the speaker and his audience, other speech acts that have been performed in the same context, the time of utterance, the truth value of the proposition expressed [...]" and so on.

The second inference is that the semantic indeterminacy of denominal adjectives and their heavy reliance on context for the recognition of the intended reading qualifies them as contextuals *par excellence* in the sense of Clark and Clark (1979). According to them (Clark and Clark 1979: 782–783) contextuals are expressions (1) which possess not a small number of potential senses, but an indefinitely large number (their sense is shifting); (2) whose interpretation depends on any occasion on the context, because their sense cannot be identified from the sentence alone, but must be identified from other facts associated with the utterance of that sentence, i.e. the context; (3) which require moment to moment co-operation between speaker and listener. We believe that in the light of the present discussion it is justified to consider denominal adjectives as contextuals.

We wish to close this section of our paper with the observation that the role of context in the interpretation of denominal adjectives is not the same in all cases. What has been suggested above holds for novel adjectives. In actual discourse, however, one finds also denominal adjectives characterized by varying degree of lexicalization, i.e. adjectives regularly associated by the speaker/hearer with some specific sense (e.g. resemblance, possession, causation, etc.). In such cases the role of context is restricted to confirming the established sense (Heinz 1957b: 68).

Two other cases of the restricted role of context are illustrated by the following examples. Although denominal adjective forming derivational suffixes are generally polysemous, it is frequently the case that a single specific meaning is associated with a given suffix. Thus in Polish the suffix -owat- regularly expresses the meaning of resemblance. In English, the semi-suffix -*like* closely matches -*owat*- in this respect. The role of context in the interpretation of adjectives containing them, both novel and established ones, is reduced to a minimum. On the other hand, both languages have derivational suffixes which form the so-called generally relational adjectives whose interpretation is entirely determined by the context (e.g. P. -ow-, E. -y).

It has also been observed that English speakers tend to follow certain highly favoured semantic patterns in describing and naming particular objects or events in the world (Downing 1977). Levi (1978: 240) discovered the following set of organizing principles:

Head	Modifier	English	Polish
1. living thing	habitat	*field mouse*	*mysz polna*
2. artifact	function	*culinary utensils*	*naczynia kuchenne*
	power source	*hand brake*	*hamulec ręczny*
3. activity	time	*night flight*	*nocny lot*
	place	*office work*	*praca biurowa*
	instrument	*solar heating*	*ogrzewanie słoneczne*
	object	*car repair*	*warsztat samochodowy*
	subject	*papal appeal*	*posłanie papieskie*
4. people	sex/age	*boy genius*	*chłopięcy geniusz*
	home = habitat	*mountain tribes*	*plemiona górskie*
	occupation	*lawyer friends*	*brać prawnicza*

Although these patterns have been derived from English data only it is highly likely that the principles by which living things are named by their habitats, artifacts by their purpose, and activities by the time, and place of their occurrence represent rather a set of universal semantic and cognitive principles according to which human beings everywhere structure their world. It is not the purpose of the present paper to investigate this issue in detail but a random selection of Polish examples (the fourth column) shows that Polish speakers employ similar semantic patterns.

2.3. The categorial content of denominal adjectives

The actual meaning of denominal adjectives is determined by broadly defined context on each occasion of their use (cf. 2.2 above). Since the specific meanings of novel denominal adjectives are not static but vary from context to context one is justified to ask whether it is possible to define the general semantic content of denominal adjectives at all. Clearly, it can neither be the meaning of relation nor the meaning of quality, i.e. the most basic and typical meanings, because there are adjectives which are purely relational and, on the other hand, adjectives which are purely qualitative. The latter type of meaning is only a potential meaning that denominal adjectives may acquire. Besides, the label qualitative adjective is not confined to denominal adjectives only; it also covers a variety of deverbal and deadjectival formations (cf. Szymanek 1981). What all denominal adjectives really have in common is that they specify the quality of the head noun relating it to some other objects denoted by the base noun. They inform that some relationship holds between pairs of objects named by the base noun; however, they say nothing of the way in which the relationship is to be understood. That must be inferred from the context. These observations led Heinz (1957b: 60) to the conclusion that "the basic meaning of any denominal adjective can be defined as 'connected with what is denoted by the base noun'" ("*podstawowe*

znaczenie każdego przymiotnika można określić jako 'mający związek z tym, co oznacza rzeczownik podstawowy'"). In our opinion, Heinz's definition of the basic meaning is actually the most adequate formulation of the categorial meaning of the class of denominal adjectives proposed, where by categorial meaning we understand the common semantic element of a class of derivatives formed by means of several co-functional formatives (cf. Grzegorczykowa 1979:23–24). We believe that the approach to denominal adjectives based on single categorial meaning is superior to the one based on multiply basic meanings on methodological grounds.

In linguistic literature concerned with attributive N + N compounds and denominal adjectives we find proposals basically similar to that of Heinz's. In the past, this approach was advocated by Jespersen (1942); recently it has been put forward in Downing (1977). In Booij (1979) and Levi (1978) essentially the same proposal is considered. In the former work (Booij 1979:991–992) it is observed that both attributive compounds and denominal NPs with adjectives have the following logical form:

(8) X_i that has some relation R to X or:

    X_i is modified in some way by Y.

The formula explicitly demonstrates that the nature of R(elation) is not determined by the morphological structure.

In the other work (Levi 1978), the single basic meaning for denominal adjectives is rejected in favour of a limited number of specific meanings, on the ground that the reduction of redundancy and overspecificity should not be pursued beyond a reasonable and empirically motivated point. According to her, an analysis of denominal adjectives in terms of relationship 'x is related to y' would be descriptively inadequate and predictively useless. Levi's rejection of the basic meaning for denominal adjectives is justified by the theory she adopted for her description, i.e. generative semantics. In a different theoretical framework, to assume that the categorial meaning of denominal adjectives is 'connected with what is denoted by the base noun' can be both "descriptively adequate" and "predictively" useful. Szymanek's dissertation (1981) constitutes a recent evidence.

3. GRAMMAR AND DENOMINAL ADJECTIVES

The main difficulty of proper interpretation and construction of a formalized model of derivation is constituted by the great proliferation of meanings attributed to them, and the unclear and disputable status of the semantic class membership of individual adjectives[8]. The multitude of meanings

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[8] We find it necessary to justify the categorical statement about the meaning and semantic class membership of individual denominal adjectives. To find additional support for the advocated lexical-interpretive analysis of such adjectives we have examined a large number of semantic classifications available in English and Polish grammars. The description of our

results from the fact that the interpretation of denominal adjectives is not completely determined by their morphological structure, i.e. they are words which acquire their specific meaning in context. The only semantic content that grammar endows novel denominal adjectives with is represented by their categorial content, i.e. 'connected with what is denoted by the base noun'. The immediate context for denominal adjectives is provided by the head nouns they modify, the fact acknowledged both by Polish and English grammarians. Accordingly, the interpretation of denominal adjectives should consider NPs containing denominal adjective modifiers and head nouns. We have also indicated that, frequently, the context of the head noun does not suffice to establish the intended meaning, and therefore a broader context has to be examined for clues, both linguistic and non-linguistic.

The above is the view on the meaning of denominal adjectives which, we believe, emerges from the discussion in preceding sections of the present work. It is completely incompatible with currently available meaning based theories of denominal adjectives (for example Levi 1978). In such theories it is assumed that the number of meanings expressed by denominal adjectives is a finite, manageable set of semantic relationships holding between the stem noun and the head noun. These relationships are believed to embrace more specific ones. The familiarity with the general semantic relationships is claimed to be part of native speaker's linguistic competence. In view of the presented, however, the first two assumptions are untenable. They are interdependent; the finite set is achieved through the reduction of specific relationships. Since not all relations can be reduced to general ones, the first assumption cannot be valid. As regards the third claim, it is quite plausible that some of the relationships, especially those reflecting various cognitive, perceptual and social categories (e.g. possession, time, place, goal, etc.), are part of one's linguistic competence, i.e. semantic competence.

A meaning based approach demands that from a finite number of diverse semantic sources, each containing a predicate representing one of the general semantic relationships, a very small number of surface patterns be derived, i.e. Adj + N or N + N. Since it is in principle impossible to specify a finite set of relations simultaneously satisfying the requirements of generality, manageability, coherence and completeness, a semantic base loses motivation. If it were the case that a small number of semantic structures corresponded to a large number of surface structures, the semantic base would be justified. The actual case is, however, that an enormous number of potential semantic structures correspond to just two surface structures, i.e. Adj + N

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examination together with the theoretical material presented in this paper constitute a part of our work (in progress) on production and comprehension of denominal adjectives. The theory of denominal adjectives outlined in the present paper predicts unattainability of a complete list of meanings rendered by them. This pessimistic prediction has been indeed confirmed by our examination.

and N + N. As a corollary, a syntactic base is motivated and a lexical-interpretive analysis of attributive NPs. Such an approach would involve (1) generating denominal adjectives in the lexicon through word formation rules; (2) generating attributive NPs directly by Ps rules; (3) mapping these base structures onto various meanings expressed by denominal adjectives.

Generating denominal adjectives in the lexicon implies adherence to the lexicalist word-formation framework, and dismissal of the transformationalist one. The existing meaning-based analyses of denominal adjectives (for example Kastovsky 1974, Levi 1978) are explicitly transformationalist, i.e. they do not recognize the distinction between the rules of denominal adjective formation and the rules of syntax. In actual fact, denominal adjectives are derived by T-rules together with the head nouns they modify in surface structure. The superiority of lexicalist word-formation has been proved in linguistic literature (cf. for example Booij 1979) and generally accepted. Our adherence to this model follows also from the incompatibility of the assumptions on which meaning based theory is founded with the actual semantics of denominal adjectives, i.e. limited set of meanings vs. infinite number of meanings in context. Of the lexicalist models of word formation, the Extended Lexicalist model outlined in Laskowski (1981), developed and applied to Polish and English data by Szymanek (1981) is compatible with the semantics of denominal adjectives. This theory rejects Aronoff's thesis "one affix — one rule" (1976), and assumes instead that word formation rules are of two types: (semantic) rules of derivation (DR) and rules of affixation (AR). DRs specify the general semantic content of the derivative; ARs define semantic, phonological and morphological constraints on the insertion of affixes. We suggest treating all denominal adjectives, despite the multitude of specific meanings they may express, as members of a single class of derivatives. The main advantage of such a proposal is that it enables to formulate a single rule of derivation specifying the categorial meaning of the class of denominal adjectives, i.e. 'connected with what is denoted by the base noun'. This methodological premise proved useful for word formation of English and Polish derived adjectives (cf. Szymanek 1981). We believe that the same assumption is also legitimate for the theory of interpretation of denominal adjectives.

The Ps rules generating attributive NPs of the Adj + N and N + N structure have to indicate (1) the parallelism of structure of the two types of NPs, and (2) the parallelism of Adj_{denom} and $N_{attribute}$. We believe that Ps rules based on Chomsky's X-bar convention (Chomsky 1968) can accomodate the two requirements. The function of these rules will be to provide the immediate context for the denominal adjective, i.e. the head noun. The general semantic content of such NPs as generated by word formation rules and Ps rules corresponds to 'N_{head} pertains to / is connected with N_{base}'.

As far as mapping of the two types of NPs onto various semantic

structures is concerned, we believe that it will involve interpretive semantic rules (cf. Jackendoff 1972), interpretive pragmatic rules/principles/conventions, and reference to encyclopaedic knowledge. Interpretive semantic rules will map the two syntactic structures onto a restricted set of semantic readings reconstructible by native speakers as part of their linguistic competence. The pragmatic rules will come from interpersonal and textual pragmatics as defined by Leech (seminar on semantics and pragmatics, Sosnowiec, March 1981). The way the encyclopaedic knowledge is used in interpretation of denominal adjectives in context may be similar to the convention described in Clark and Clark (1979) or construal rule of Booij (1979).

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LEXICAL CONVERSENESS OF ENGLISH VERBS

I. SYNTACTIC ANALYSIS

1. Introduction

The present paper attempts to provide a syntactic classification of lexical verb converseness in English. The analysis will show that there are numerous pairs of contrastive verbs in English which, though treated as independent lexical items, have essentially the same denotative or conceptual meaning but describe the situation from reverse points of view. The very concept of converseness as one of the semantic relation of contrast was introduced by Lyons (1968: 460–470), who distinguishes three types of semantic opposition: complementarity, antonymy and converseness. Leech (1974: 99) shows that words do not contrast only on a single dimension but they may contrast with other words on a number of dimensions at once. Analysing different types of "contrastingness", he poses the so called Relative Opposition as one of the most important binary contrastive relations. Relative Opposition involves a contrast of direction which can be expressed either by a different syntactic order or by a different lexical item. Lexical pairs capable of expressing such contrast are called converses. Leech (1974: 111) exemplifies the contrast of direction by such pairs as: *own/belong, be in/contain, above/be-low, before/after*, etc. The essence of converseness in terms of deep semantic concepts was first explained by Fillmore (1969: 117, 1970: 7), who took the position that both elements of a converse pair are semantically identical, having the same number of arguments in the same roles, but differing solely in the processes which arrange their elements into syntactic configuration. Besides, he not only gave examples of converseness describing the directional opposition between two participants in an event, such as *buy/sell, send/receive, teach/learn* but also quoted examples illustrating a sort of partial opposition, e.g. *steal/rob*. Further significant contribution to the study of converseness was made by Apresjan (1980: 328–362), who gave a precise formal definition of converseness and numerous examples of its functioning in Russian. We present the analysis of lexical converseness with regard to English verbs. The theoretical background for this study comprises Fillmore's theory of Cases (Fillmore 1968) and Apresjan's (1980) postulates concerning a semantic model of language.

2. Definition of Lexical Converseness

2.1. Before going into linguistic details, let us first quote the algebraic definition of the reverse relation. We shall see later that the essential features of this definition hold true when applied to the area of language.

The binary relation $\breve{R}$ is reverse to the relation R in a given set of elements M if $a\breve{R}b$ entails bRa, and vice versa, where a, b are the elements of the set M. From this definition it follows that the relations R and $\breve{R}$ have identical features and thus describe the same reality (Apresjan 1980: 332).

The following linguistic examples, taken from different fields of grammar, show how the reverse relation operates in English. The examples are quoted by Apresjan (1980: 328, 329) but they were originally analysed by other linguists (Jespersen, Harris, Masterman):

A precedes B vs *B follows A*, *above* vs *under*, *before* vs *after*, *older* vs *younger*, *desirous* vs *desirable*, *examiner* vs *examinee*, *sell* vs *buy*, *give* vs *receive*, *have* vs *belong*, *He went for a walk, although it was late* vs *It was late, however he went for a walk*, *No one knows the plan* vs *The plan is known to no one*.

Lyons (1968: 467, 468) introduces the concept of converseness referring to the following sentences:

NP_1 *bought* NP_3 *from* NP_2 = NP_2 *sold* NP_3 *to* NP_1
NP_1 *is bigger than* NP_2 = NP_2 *is smaller than* NP_1
NP_1 *killed* NP_2 = NP_2 *was killed by* NP_1
John's father gave him a book = *John was given the book by his father* = *John received a book from his father*
NP_1 *is* NP_2*'s husband* = NP_2 *is* NP_1*'s wife*

In all the above examples the important feature of the reverse relation, i.e., the description of the same situation from two different perspectives, is preserved. It may be seen that a mutual exchange of function also takes place.

Converseness operates in the language either in a regular or in an irregular way, i.e., either by means of grammatical devices or by means of ready lexical items, each having its own definition in the lexicon and not related syntactically to the other.

2.2. It is desirable now to concentrate our attention on the detailed linguistic definition of lexical converses, given by Apresjan (1980: 334): Two lexical items R and S are converses if they fulfil the following requirements:
(i) lexical definitions of R and S include the same elementary predicates P_1, P_2, ..., P_n: each pair of the type $P_i \overset{1}{\longrightarrow} P_j$ in the definition of R corresponds to the identical pair in the definition of S (if 1 is not an attributive relationship) or to the pair $P_j \overset{1}{\longrightarrow} P_i$ (if 1 is an attributive relationship) and vice versa;

(ii) R and S have mutually reverse structures of roles;
(iii) R and S refer to the same deep part of speech.

This definition requires some explanation concerning the concepts included in it.

2.2.1 Elementary predicates

Words in natural languages can be defined in terms of simpler meanings (semantic components). These elementary meanings include names of elementary predicates (analogues of verbs) and names of objects (analogues of nouns), which together with logical conjunctions and names of object variables A, B, C, ... constitute the lexis of the semantic language (Apresjan 1980: 101). By means of this formal device each word can be defined. All of the following verbs, for example, share a semantic component of transfer of possession in their semantic structure: *give, lend, take, steal, lose, find, send, borrow, buy, sell* (Sinclair 1972: 8). Let us now define the verbs *buy* and *sell* according to Apresjan's convention. Both verbs denote the following situation:
(a) A thing A is transferred from X to Y;
(b) A certain amount D of money is transferred from Y to X.
The verb *sell* is defined as follows:
(c) X sells A to Y = X causes (a) and (b).
For the verb *buy* the definition is:
(d) Y buys A from X = Y causes (a) and (b).
Both verbs have the same elementary meanings expressed by (a) and (b) plus the semantic component CAUSE.

2.2.2 Attributive relation between elementary predicates

The attributive relation between predicates is presented in the following examples:
(e) X cures Y of A with Z = X treats Y with a special medicine Z, trying to remove A ($\underset{P_1}{\text{treat}} \overset{attr}{\longrightarrow} \underset{P_2}{\text{try}}$)
(f) X cures Y's A with Z = X tries to remove A, treating X with a special medicine Z ($\underset{P_2}{\text{try}} \overset{attr}{\longrightarrow} \underset{P_1}{\text{treat}}$)

It seems that the attributive relation is usually expressed by participial constructions. It is the relation between two predicates expressing actions dependent on each other ($P_1 \overset{attr}{\longrightarrow} P_2$ means that P_2 is subordinate to P_1).

2.2.3 Reverse structure of roles

The structure of roles of a given word reflects its syntagmatic relations with other words. Each word has a number of valencies which describe its capacity to combine with other words (Apresjan 1980:158). These valencies have a certain content which may be referred to as Fillmore's Cases (Fillmore 1968) or roles, or Grammatical Meanings (Platt 1971:4). From the semantic point of view only those valencies are essential that carry the lexical meaning of a word, i.e., those which correspond to the roles or members participating in the situation denoted by a given word. Let us again illustrate this concept on the example of our pair *buy* and *sell*. Using the system of roles adopted in this study (the whole list of roles and their definitions are presented under 3.1), we can describe them as follows:

Verb	Valency number	Semantic content role	Argument
buy	1	+A	Y
	2	+N	A
	3	+C	X
sell	1	+A	X
	2	+N	A
	3	+C	Y

That the two verbs *buy* and *sell* have reverse structure of roles is proved by the fact that if X, Y (see examples (c) and (d)) fill valencies 1 and 3, respectively, in the case of the verb *sell*, they appear in the verb *buy* in a reverse order (X fills valency 3 while Y fills valency 1).

2.3. In view of the presented definition it is obvious that two words may remain in the relation of converseness if they have at least two deep semantic valencies, so this relation is characteristic particularly of verbs (Apresjan 1980:337). In the area of verb converses two classifications can be made: syntactic and semantic (Apresjan 1980:341–349). The syntactic classification of converse terms is based upon the number of semantic valencies present in the deep structure of a verb as well as upon the possible exchange of their fillers (i.e., which have reverse content).

3. Syntactic Analysis and Classification of a Selected Set of English Verb Converses

3.1. The analysis is made on the deep structure level and consists in establishing syntagmatic relationships of a given verb with other words in a sentence. The framework is that of Fillmore's theory of Cases (Fillmore 1968, 1969, 1970), with certain modifications made by other linguists (Platt 1971, Hutchins 1975, Apresjan 1980). The roles taken into account in our study are

listed below, each notion being followed by the definition with reference to its source:

Agentive (A), the typically animate perceived instigator of the action identified by the verb (Fillmore 1968:24).

Counter-Agent (C), the active member of such a situation in which an active agent also takes part but the actions of both participants do not overlap: a predicate describes only the agent's activity and not the activity of the Counter-Agent (Apresjan 1980:167, my translation, B.R.).

Affective (AF), the entity affected by the action or state identified by the verb (not necessarily animate) (Platt 1971:73).

Neutral (N), an entity which is in no way affected by the action or state identified by the verb (Platt 1971:78).

Factitive (F), the object or being resulting from the action or state identified by the verb, or understood as a part of the meaning of the verb (Fillmore 1968:25).

Instrumental (I), the role of the inanimate force or object casually involved in the action or state (Fillmore 1968:24).

Benefactive (B), the role of the perceived beneficiary of an action or state, i.e., the animate being or human institution which is perceived as intended to benefit (Platt 1971:74). Beneficiary has both a positive and negative value, and so the term covers not only those who 'benefit' from an action but also those who may be 'victims' of an action (Hutchins 1975:62).

Participative (P), animate being or human institution (not itself an agent) which is emotionally, mentally or sensually involved in the state or action identified by the verb (Platt 1971:78).

Source (S), the place (or person) from which (whom) something is directed (Fillmore 1969:116).

Goal (G), the place (or person) towards which (whom) something is directed. (The definition is implied in the examples given in Fillmore (1969)).

Locative (L), the role which identifies the location or spacial orientation of the state or action identified by the verb (Fillmore 1968:25).

Temporal (T), the role which identifies the time or temporal orientation of the state or action identified by the verb (my definition, B.R.).

As regards the above list, it should be pointed out that some notions seem to be broader or deeper than others. Thus, for example, the roles of Source and Goal function on a different level than those of Agent or Counter-Agent. In such pairs as *buy* and *sell* or *teach* and *learn*, we have the Source and the Goal. With *sell* and *teach*, the Source is simultaneously the Agent; with *buy* and *learn*, the Goal is simultaneously the Agent (Fillmore 1969:117). So, there may be predicates, as Fillmore suggests, for which there would be no one-to-one correspondence between the roles and the arguments filling them. Some linguists maintain that Goal and Source are categories which cover more detailed subcategories. Thus, Benefactive, Locative and Factitive are sometimes treated as subcategories of Goal (Hutchins 1975:63).

3.2. Before the analysis proper some introductory remarks and assumptions will be made.

3.2.1. Linguistic data for the study have been selected in an arbitrary way and consist of paired verbs in reciprocal relation. Some of the English verb converses presented here were taken from the already existing studies (Fillmore 1968, 1969, 1970, Apresjan 1980), others were selected from a dictionary (Hornby 1974) and a thesaurus (Roget 1952).

3.2.2. The number of valencies will be reduced to those which are inherent in the meaning of a given word.

3.2.3. In the analysis of a given verb only one of its meanings is considered — that which is relevant to the respective relation of converseness. In consequence, there may appear more than one identical lexical entries, each having a different meaning, a different number of valencies and a different structure of roles. Such "double" entries are marked with indices, e.g. $follow_1$, $follow_2$, etc.

3.2.4. A verb with a preposition will be treated as a simple predicate. For instance, *develop into* and *develop out of* are two separate predicates. They were already classified as converse terms by Fillmore (1970:13).

3.2.5. Predicates which share their basic meanings and are mutually interchangeable are grouped together.

3.2.6. To each verb is assigned its deep syntactic description in terms of roles. Because of lack of space, only some pairs are followed by sample illustrative sentences.

3.2.7. The main syntactic division is based on the number of valencies or corresponding arguments. If a verb takes more arguments than two, there may be further subdivisions according to the possible combinations of valencies with reverse content.

3.3 Two-place converse predicates

3.3.1. Definition

$$P = \text{conv}_{2-1}(Q) \Leftrightarrow xQy = yPx,$$

where P, Q — predicates, conv_{2-1} — relation of converseness between the first and the second valency, x, y — arguments (words filling the respective valencies).

3.3.2. List of converse terms

(1) belong [N, B] = conv_{2-1} $\begin{Bmatrix} \text{possess [B, N]} \\ \text{own [B, N]} \end{Bmatrix}$

(1a) Mr Smith *owns/possesses* this car.
(1b) This car *belongs* to Mr Smith.

(2) $\begin{Bmatrix} \text{please [N, P]} \\ \text{charm [N, P]} \\ \text{delight [N, P]} \end{Bmatrix} = \text{conv}_{2-1} \begin{Bmatrix} \text{like [P, N]} \\ \text{admire [P, N]} \\ \text{enjoy [P, N]} \end{Bmatrix}$

(2a) The film *delighted* the children.
(2b) The children *enjoyed* the film.

(3) disgust [N, P] = conv_{2-1} $\begin{Bmatrix} \text{hate [P, N]} \\ \text{dislike [P, N]} \end{Bmatrix}$

(4) attract [N, P] = conv_{2-1} (gravitate [P, N])
(4a) Young people in the country district seem to *gravitate* towards the cities.
(4b) Cities seem to *attract* young people in the country districts.

(5) $\begin{Bmatrix} \text{benefit}_1 \text{ [N, B]} \\ \text{advantage [N, B]} \end{Bmatrix} = \text{conv}_{2-1} \begin{Bmatrix} \text{profit by/from [B, N]} \\ \text{benefit}_2 \text{ from [B, N]} \end{Bmatrix}$

(5a) In what way will it *advantage* them?
(5b) In what way will they *profit from* it?
(6) suffice [N, B] = conv_{2-1} (manage with [B, N])
(6a) We won't *manage with* these poor tools.
(6b) These poor tools won't *suffice* us.

(7) fail [N, B] = conv_{2-1} $\begin{Bmatrix} \text{lack [B, N]} \\ \text{run out of/short of [B, N]} \end{Bmatrix}$

(7a) Words *fail* me.
(7b) I *lack* words.
(7c) Water supply has *failed* us.
(7d) We have *run short* of water.

It must be noticed that *fail* contrasts both the verbs *lack* and *run short/out of*. However, the latter two are not interchangeable. The verb *run out/short of* seems to indicate the process of being deprived of something or its result, while the verb *lack* is a verb of state. *Fail*, as the above examples indicate, may be used in either sense.

(8) $\begin{Bmatrix} \text{change}_1 \text{ into [AF, F]} \\ \text{turn}_1 \text{ into [AF, F]} \\ \text{develop}_1 \text{ into [AF, F]} \end{Bmatrix} = \text{conv}_{2-1} \begin{Bmatrix} \text{come of [F, AF]} \\ \text{develop}_1 \text{ out of [F, AF]} \end{Bmatrix}$

(9) $\begin{Bmatrix} \text{result in [N, F]} \\ \text{originate [N, F]} \end{Bmatrix} = \text{conv}_{2-1} \begin{Bmatrix} \text{result from [F, N]} \\ \text{arise from [F, N]} \\ \text{originate in [F, N]} \\ \text{originate from [F, N]} \end{Bmatrix}$

(10) follow₁ [A, C] = conv$_{2-1}$ (lead [A, C])

  (10a) The guide *led* us.

  (10b) We *followed* the guide.

(11) defend [A, C] = conv$_{2-1}$ (attack [A, C])

  (11a) The enemy *attacked* the army.

  (11b) The army *defended* themselves against the enemy.

(12) $\begin{cases} \text{desert [A, B]} \\ \text{leave [A, B]} \end{cases}$ = conv$_{2-1}$ (lose₁ [B, N])

  (12a) John *lost* all his friends.

  (12b) All friends *left* John.

  (12c) He *lost* courage.

  (12d) Courage *deserted* him.

Notice that *desert/leave* can function as paraphrases of *lose* only if the object of *lose* is an animate or an abstract noun (e.g., strength, courage, presence of mind, etc.). The difficulty arises when we need to assign roles to the valencies of those verbs. My suggestion is that the second valency of *lose* be Neutral (N). The argument filling this position becomes the Agent while attached to the predicate *desert/leave*. This inconsistency may be accounted for by the fact that the usage of the above verbs is highly specific in this context. Such abstract notions as courage, strength, etc., acquire some features of animate nouns. Therefore the assignment of the role Agentive seems to be justified.

(13) $\begin{cases} \text{sink into [AF, L]} \\ \text{penetrate [AF, L]} \end{cases}$ = conv$_{2-1}$ $\begin{cases} \text{seep in [L, AF]} \\ \text{absorb [L, AF]} \\ \text{soak up [L, AF]} \end{cases}$

(14) permeate [N, P] = conv$_{2-1}$ (imbibe [P, N])

(15) support [N, N] = conv$_{2-1}$ $\begin{cases} \text{lean [N, N]} \\ \text{repose [N, N]} \end{cases}$

  (15a) The ladder *leans* against the wall.

  (15b) The wall *supports* the ladder.

  (15c) The whole construction *reposes* on its foundations.

  (15d) The foundations *support* the whole construction.

(16) $\begin{cases} \text{follow₂ [N, N]} \\ \text{succeed [N, N]} \end{cases}$ = conv$_{2-1}$ (precede [N, N])

  (16a) Henry VIII *succeeded* Henry VII as the king of England.

  (16b) Henry VII *preceded* Henry VIII as the king of England.

The pair *follow* and *precede* has already become a standard example of converseness. It is quoted both by Fillmore (1970:14) and Ápresjan (1969:9) as well as by other linguists who touch upon the problem of converseness or, as they call it, relative oppositions. We have added also the verb *succeed* to

this group, since it clearly contrasts *precede* with reference to the succession in time. Obviously, the verbs *precede* and *follow* have much more extended usage, and can be mutually exchanged when referring to the succession in time, space, and order.

(17) $\begin{cases} \text{constitute [N, N]} \\ \text{form [N, N]} \end{cases}$ = conv$_{2-1}$ $\begin{cases} \text{comprise [N, N]} \\ \text{consist of [N, N]} \end{cases}$

(18) be in [N, N] = conv$_{2-1}$ (contain [N, N])

3.4 Three-place converse predicates

Within this group there may be different combinations of valencies responsible for the converseness relation. Theoretically, there exist six different permutations of arguments, i.e.: 123, 132, 213, 231, 312, 321. Examples for each of the above combinations have been selected, except the 213 type.

3.4.1. Converseness with the reversal of arguments between positions 1 and 3.

This type of converseness is typical of verbs describing situations with two equivalent participants, each capable of being actively involved. Each of the two verbs in the relation of converseness describes the action from the point of view of one of the two parties.

Definition

$$P = \text{conv}_{321}(Q) \Leftrightarrow xQyz = zPyx$$

(19) take [A(G), AF, C(S)]¹ = conv$_{321}$ give [A(S), AF, C(G)]

  (19a) John *gave* the book to George.

  (19b) George *took* the book from John.

(20) $\begin{cases} \text{receive [G(B), AF/N, S]} \\ \text{get [G(B), AF/N, S]} \end{cases}$ = conv$_{321}$ $\begin{cases} \text{send [A(S), AF/N, C(G)]} \\ \text{give [A(S), AF/N, C(G)]} \end{cases}$

  (20a) Bill *sent* a letter/a message to Susan.

  (20b) Susan *received* a letter/a message from Bill.

  (20c) Mr Smith *gave* the house to Mary.

  (20d) Mary *got* the house from Mr Smith.

(21) learn₁ [A(G), N, C(S)] = conv$_{321}$ (teach [A(S), N, C(G)])

(22) import [A(G), AF, C(S)] = conv$_{321}$ (export [A(S), AF, C(G)])

(23) lose₂ [S, AF, G] = conv$_{321}$ (win [G, AF, S])

  (23a) John *lost* £ 20 to Billy.

  (23) Billy *won* £ 20 over John.

One might argue that the assignment of roles should be different, i.e., more detailed, as in the previous examples. However, if we assigned the role

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¹ Symbols in parentheses denote a second role which may be assigned to the same valency.

of Benefactive to the 1st valency of *win*, the same role, though in a negative sense, should be assigned to the 1st valency of *lose*. Consequently, each verb would have two Benefactives (one in the positive, the other in the negative sense). The contrast and exchange of roles would be hardly visible then. The roles of Source and Goal, though more general, illustrate the converseness in a better way. Moreover, it is impossible to treat the above contrast as an opposition between an Agent and a Counter-Agent, since it is chance rather than the will of the participants that causes the event.

(24) $\begin{Bmatrix} \text{come}_2 \text{ of } [F, AF, A] \\ \text{become } F, AF, A \end{Bmatrix} = \text{conv}_{321} \begin{Bmatrix} \text{turn}_2 \text{ into } [A, AF, F] \\ \text{change}_2 \text{ into } [A, AF, F] \end{Bmatrix}$

    (24a) Anxiety *turned* his hair white.
    (24b) His hair *became* white out of anxiety.
    (24c) Frost *changes* water into ice.
    (24d) Ice *comes of* water due to frost.
(25) mean $[N, N, P] = \text{conv}_{321}$ (understand $[P, N, N]$)
    (25a) He *understands* X by Y.
    (25b) Y *means* X to him.

3.4.2. Converseness caused by the reversal of arguments between positions 2 and 3.

$$Q = \text{conv}_{132}(P) \Leftrightarrow xPyz = xQzy$$

(26) rob $[A, C, AF] = \text{conv}_{132}$ (steal $[A, AF, C]$)
    (26a) Harvey *robs* John of roses.
    (26b) Harvey *steals* roses from John.

The opposition between *rob* and *steal* is different from that described in 3.4.1. It contrasts not the points of view of two different participants as the previous examples do, but two possible orientations of the action. The verb *rob* is Counter-Agent oriented while the verb *steal* is Affected-entity oriented. The meaning of both sentences (26a, b) remains essentially the same.

There are a number of verbs in English which parallel this kind of opposition. Most of those which are selected here are peculiar in the sense that the same lexical item performs both functions, though by means of different prepositions. They are listed below (items 28-34).

(27) replace $[A, AF, AF] = \text{conv}_{132}$ (substitute $[A, AF, AF]$)
    (27a) John *replaces* X with Y.
    (27b) John *substitutes* Y for X.
(28) provide$_2$ $[A(S), C(G), AF] = \text{conv}_{132}$ (provide$_1$ for $[A(S), AF, C(G)]$)
    (28a) Mary *provides* food *for* children.
    (28b) Mary *provides* children *with* food.
(29) supply$_2$ $[A(S), C(G), AF] = \text{conv}_{132}$ (supply$_1$ to $[A(S), AF, C(G)]$)
    (29a) The Black & Smith Company *supplied* goods *to* the consumers.
    (29b) The Black & Smith Company *supplied* the consumers *with* goods.

(30) blame$_2$ $[(S) P, G, N] = \text{conv}_{132}$ (blame$_1$ $[(S) P, N, G]$)
    (30a) Harry *blamed* his failures *on* Mary.
    (30b) Harry *blamed* Mary *for* his failures.
(31) smear$_2$ $[A(S), L(G), AF] = \text{conv}_{132}$ (smear$_1$ $[A(S), AF, L(G)]$)
    (31a) John *smeared* paint *on* the wall.
    (31b) John *smeared* the wall *with* paint.
(32) load$_2$ $[A(S), L(G), AF] = \text{conv}_{132}$ (load$_1$ $[A(S), AF, L(G)]$)
(32) heap$_2$ $[A(S), L(G), AF] = \text{conv}_{132}$ (heap$_1$ $[A(S), AF, L(G)]$)
(34) plant$_2$ $[A(S), L(G), AF] = \text{conv}_{132}$ (plant$_1$ $[A(S), AF, L(G)]$)

The above listed converse terms (26-34) evidently form one syntactic class. The first element of each pair (i.e., *steal*, *substitute*, *provide*$_1$, *supply*$_1$, *blame*$_1$, *smear*$_1$, *load*$_1$, *heap*$_1$, *plant*$_1$) takes the Affected entity as its direct object and is AF-oriented. The second element takes the Counter-Agent (or Goal, Neutral, Locative, etc.) as its direct object, setting the Affected entity in a preposition-phrase with WITH. The orientation of the action, or in other words, the direction of the Agent's activity shifts towards the 3rd argument. It can be illustrated graphically in the following way:
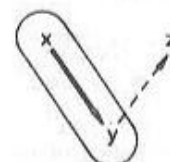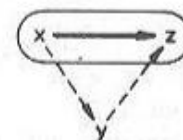
$P: xPyz$ $Q = \text{conv}_{132}(P): xQzy$

P, Q — converse predicates, x, y, z — arguments. The bold arrow indicates which relationship is primary for a given predicate.

The treatment of identical words as two separate lexical items might be questioned. However, Fillmore's suggestion regarding the interpretation of two *loads* or two *smears* seems to provide support for such an approach (Fillmore 1969: 128). He maintains that *smear*$_2$ and *load*$_2$ are the extensions of the original meanings of *smear*$_1$ and *load*$_1$, respectively. *Load*$_2$ and *smear*$_2$ as well as the second element of all other pairs included in this group imply a sort of totality or completion (Fillmore 1977: 100).

Some more items should be included in this subcategory of 3-place converse predicates, though they differ slightly from the pairs (26-34), namely:

(35) make out of $[A, AF, F] = \text{conv}_{132}$ (make into $[A, F, AF]$)
    (35a) I *made* a log *into* a canoe.
    (35b) I *made* a canoe *out of* a log.

This example, again, is taken from Fillmore (1970: 13). He also points out

that *develop into* and *develop out of*, listed in 3.3.2, under (8), may be used as 3-place predicates. Therefore, we suggest:

(36) develop$_2$ out of [A, F, AF] = conv$_{132}$ (develop$_2$ into [A, AF, F])

    (36a) He *developed* this theorem *into* a whole theory.

    (36b) He *developed* a whole theory *out of* this theorem.

3.4.3. Converseness of the type: 2–3–1

$$Q = \text{conv}_{231}(P) \Leftrightarrow xPyz = yQzx$$

(37) seem [N, N, P] = conv$_{231}$ (take for [P, N, N])

    (37a) I *took* him *for* a fool.

    (37b) He *seemed* a fool to me.

(38) learn$_2$ [G(P), N, S] = conv$_{231}$ $\begin{cases} \text{tell } [S(A), GN] \\ \text{inform } [S(A), GN] \end{cases}$

    (38a) He *told/informed* me about the accident.

    (38b) I *learned* about the accident from him.

3.4.4. Converseness of the type: 3–1–2

$$Q = \text{conv}_{312}(P) \Leftrightarrow xPyz = zQxy$$

(39) cost [N, S(P), AF] = conv$_{312}$ (pay [S(A), AF, N])

    (39a) I *paid* £ 20 for it.

    (39b) It *cost* me £ 20.

As the above examples indicate, all possible types of converseness of 3-place predicates are represented in English, except the 2–1–3 type. It is interesting to note that it is not even the passive voice that transforms the arguments of an original sentence into this combination. Compare:

John *gave* a book to Mary.

A book *was given* to Mary by John. (2–3–1)

*A book *was given* by John to Mary.

The last of the three sentences is not acceptable. The Agent preceded by *by* should always be placed in the adjunct position.

There is still one problem concerning 3-place converse predicates which merits consideration. One might argue that examples presented in 3.4.1 can be treated as 2–3–1 converse terms as well. Compare:

John *gave* George a book.

George *took* a book *from* John.

We assume, however, that the pattern: Subject – Indirect Object – Direct Object without a preposition is a regular derivation from the pattern: Subject – Direct Object – Indirect Object with preposition *to* or *for*. That the latter pattern is treated as a primary one is additionally justified by the fact that it is the only possible one if both objects are replaced with pronouns. This assumption is made for the purposes of exposition and simplification.

for converseness is mutually reversed (i.e., roles which correspond to them appear in the reverse order), and the correspondence between roles and arguments remains unchanged. It can be illustrated by the following pair:

X belongs to Y.

Y owns X.

With both verbs Y fills the Benefactive role and X — the Neutral. With *own*, it is the first valency to which the Benefactive role is assigned, while with *belong* — the second one. Consequently, the Neutral role filled by the argument X occurs in position 1 for *belong* and in position 2 for *own*.

The above is true for all converse terms from our list in which the following pairs of roles are reversed: Neutral–Participative, Neutral–Benefactive, Affective–Factitive, Neutral–Factitive, Counter–Agentive–Affective, Affective–Neutral.

A slightly different group of converse terms are those with two identical roles ascribed to different valencies. If we consider such pairs as: *sink into/absorb* [AF, AF], *lean/support* [N, N], *consist of/constitute* [N, N],

Table 1. Possible configurations of roles

Roles	Agentive	Counter-Agentive	Affective	Neutral	Factitive	Instrumental	Benefactive	Participative	Source	Goal	Locative	Temporal	Representative verb
Two-place converses	x	x											lead
			x									x	penetrate
			xx										support
			x		x								develop₁ into
				x	x								result in
			x					x					belong
	x							x					desert
			x					x					please
Three-place converses	x		x	x									make into
	x	x	x/	x/					(x)	(x)			take
			x/	x/					x	x			receive
			x	x				(x)	x				cost
			xx						x				seem
			x					x	(x)	x			blame
	x		x					(x)	(x)	x			smear
	x		xx										replace
Four-place converses	x	x	x					(x)	(x)		x		borrow
	x	x	xx					(x)	(x)				buy
	x	x	x	x				(x)	(x)				rent
	x	x	x			x							cure

---

precede/succeed [P, P], *seem/take for* [P, N, N], we can notice that the reciprocality, although it is there, is not explicit because of the identity of roles. Apparently, it is only the arguments that change their positions and not the roles. We may say that both types of correspondence: valency → role and role → argument are the same for each element of a pair. Let us take the pair *consist of/constitute*:

X consists of Y.

Y constitutes X.

Both verbs have an identical sequence of roles: [N, N] as well as the same correspondence between arguments and roles: N → X, N → Y. However, if we distinguish between the roles as N_1 and N_2, the reversal is identical as in the group represented by *own/belong*.

Another kind of reciprocality may be observed for converse terms describing actions with two active members, each of them capable of being the Agent (e.g., *buy/sell*, *lend/borrow*, *give/take*, *defend/attack*), in which case the correspondence between roles and arguments is broken, the sequence of roles being the same for each element of a pair. Compare:

X buys A from Y.

Y sells A to X.

---

x — obligatory role present in a given verb

xx — two identical obligatory roles present in a given verb

x/ — either one or the other thus indicated role is present (alternatively)

(x) — role which can be additionally assigned to the valency filled already by another role

The groups represented by the verbs in Table 1 are the following:

lead: follow₁, attack, defend

penetrate: sink into, seep in, absorb, soak up

support: lean, repose, follow₂, precede, succeed, constitute, form, comprise, consist of, contain, be in

develop₁ into: develop₂ out of, change₁ into, turn₁ into, come₁ of

result in: originate, arise from, result from, originate in, originate from

belong: own, possess, benefit₁, advantage, profit by/from, benefit₂ from, suffice, manage with, fail, lack, run out of, run short of, lose₁

desert: leave

please: like, admire, enjoy, delight, charm, gravitate, attract, dislike, hate, disgust, permeate, imbibe

make into make out of, develop₂ into, develop₂ out of, turn₂ into, change₂ into, become, come₂ of

take: give, send, import, export, rob, steal, provide, supply, learn, teach, tell, inform

receive: get, win, lose₂, learn₂

cost: pay

seem: take for, understand, mean

smear: plant, load, heap

borrow: lend

buy: sell, purchase

rent: let, buy, sell, purchase

(e) $X \begin{Bmatrix} \text{penetrates} \\ \text{sinks} \end{Bmatrix}$ into $Y = X$ changes to $(X$ is in $Y)$

(f) $Y \begin{Bmatrix} \text{absorbs} \\ \text{soaks up} \\ \text{seeps in} \end{Bmatrix} X = Y$ changes to $(X$ is in $Y)$

Notice that the component of "change" is typical of all verbs of process.

1.3. The last subgroup of relativeness verbs are those describing relative actions. The relevant examples are:

(g) X attacks $Y = X$ and Y are in opposite positions and X tries to cause the defeat of Y

(h) Y defends himself against $X = X$ and Y are in opposite positions and Y tries to cause not to be defeated by X

(i) X follows$_1$ $Y = X$ and Y are moving in the direction Z and X causes X to be after Y

(j) Y leads $X = X$ and Y are moving in the direction Z and Y causes X to be after Y

The above definitions seem to provide support for grouping all the verbs discussed in 1 together and labelling them "verbs of relativeness". Semantic components responsible for the relativeness are the following: "to be in", "to be after", "to be a part of", "to be in opposite positions".

2. Factitive verbs

We understand the notion Factitive as introduced by Fillmore (1968:25). Factitive verbs are those that take Factitive case as one of their arguments, i.e., those describing actions or processes as a result of which some object starts its existence due to or from something else. Within this group we can distinguish two subclasses. The first one will comprise pure factitive verbs which describe the process of conversion, while the second will include verbs referring to the cause—effect relationship. Both 2-place verbs and 3-place transitive verbs corresponding to them belong to this class. Let us analyse them one by one.

2.1. Conversion verbs

(a) $X \begin{Bmatrix} \text{develops}_1 \text{ into} \\ \text{turns}_1 \text{ into} \end{Bmatrix} Y = X$ changes into Y

(b) $Y \begin{Bmatrix} \text{develops}_1 \text{ out of} \\ \text{comes of} \end{Bmatrix} X = X$ changes into Y

The verbs defined above have the component of "change", which appeared also in 1. That it be included in a limited set of elementary meanings has been already suggested elsewhere (Bendix 1966, Apresjan 1980). *X changes*

into Y means that X is not Y and becomes Y in time t, where t is a time-referent of a verb.

The corresponding transitive counterparts of the above verbs, together with the pair *make into/make out of*, differ in that they additionally take the Agent in position 1. Thus, the semantic component CAUSE, usually corresponding to the Agentive Case, is added:

(c) $Z \begin{Bmatrix} \text{develops} \\ \text{changes} \\ \text{turns} \\ \text{makes} \end{Bmatrix} X$ into $Y = Z$ causes X to change into Y

(d) $Y \begin{Bmatrix} \text{comes of} \\ \text{develops out of} \\ \text{becomes} \end{Bmatrix} X$ due to $Z = Z$ causes X to change into Y

2.2. Cause—effect relationship

The verbs referring to the cause—effect relationship form the second subclass of Factitive verbs. All the following terms: *result in, originate, result from, arise from, originate in,* and *originate from* can be paraphrased into:

(e) X causes Y to start its existence.

Notice that there is a difference between CAUSE as applied to Agentive verbs (action verbs) and CAUSE as used for the verbs just analysed. The Agentive CAUSE implies a kind of intention, while the resultative CAUSE does not. For the purposes of exposition, we can distinguish the intentional CAUSE$_i$ and the neutral CAUSE$_n$. Consequently, the Agentive conversion verbs can be formally represented by:

Z causes$_i$ X to change into Y,

and the cause—effect verbs by:

X causes$_n$ Y to start its existence.

3. Benefactive verbs

A third broad semantic class of converse terms includes all the verbs which imply some sort of the benefactive relation, which is made sometimes more, and sometimes less explicit. The notion "Benefactive verbs" was discussed in Chafe (1970: 147–151). He claims that the verbs which are intrinsically benefactive may be states, processes or action-processes. The basic semantic component shared by the benefactive verbs is that of possession. Chafe distinguishes three types of possession: transitory possession, nontransitory possession and private property. Bendix (1966), on the other hand, differentiates between general HAVE an accidental kind of relation and inherent HAVE (a special kind of relation, unambiguous regardless of context which may be expressed by the construction B is A's). In our study, let

X lets A to Y for $B = A$ belongs to X and X causes Y to
                    have A and to give B to X without
                    changing A to belonging to Y

Y rents A from X for $B = A$ belongs to X and Y gives B to X
                    causing Y to have A without changing
                    A to belonging to Y

The 3- and 4-place converses included in the class of benefactive verbs were not indicated as taking the Benefactive role in our analysis. It is evident, however, that the argument associated with the Goal may also be treated as the Benefactive. Chafe claims that the verbs *buy, sell, give,* etc., are intrinsically benefactive, though it is not always¹ manifested overtly.

On the other hand, all the verbs defined in 3.2 share the component of transfer of possession, property, or knowledge. We could even mark them (+ Transfer). Therefore, it seems reasonable to keep this group apart and treat it as a subclass of the benefactive verbs. To avoid misunderstandings, which are likely to occur when we discuss a somewhat different kind of transfer in 5, let us call this transfer benefactive transfer.

4. Experiential verbs

There is a group of verbs which refer to mental or emotional states and are referred to as experiential verbs (Chafe 1970). The notion Experiencer is equivalent to Participative — a Case adopted in this study. Typical experiential verbs are those represented by *please* (see Table 1), i.e.: *please, like, enjoy, admire, charm, delight, dislike, hate, disgust, permeate, imbibe, attract, gravitate* as well as the 3-place verbs represented by *seem* and *blame,* i.e.: *blame, seem, take for, mean, understand.*

Notice that all the verbs defined below share the component HAVE, which, however, has an abstract meaning here, i.e., it does not refer to the possession or private property of a material object but to feelings, thoughts, opinions, etc. The relation R occurring in the definitions below is such a relation between X and Y that X is in mental or emotional contact with Y or is exposed to the influence of Y.

$X \begin{Bmatrix} \text{likes} \\ \text{admires} \\ \text{enjoys} \end{Bmatrix} Y = $ There is a relation R between X and Y and X has a positive feeling towards Y

$Y \begin{Bmatrix} \text{pleases} \\ \text{delights} \\ \text{charms} \end{Bmatrix} X = $ There is a relation R between Y and X and Y causes$_n$ X to have a positive feeling towards Y

$X \begin{Bmatrix} \text{hates} \\ \text{dislikes} \end{Bmatrix} Y = $ There is a relation R between X and Y and X has a negative feeling towards Y

Y disgusts $X = $ There is a relation R between X and Y and Y causes$_n$ X to have a negative feeling towards Y

Y attracts $X = $ There is a relation R between A and X and Y causes$_n$ X to have a positive feeling towards Y and to be close to Y

X gravitates to $Y = $ There is a relation R between X and Y and X has a positive feeling towards Y and changes to being close to Y

Y permeates $X = $ an idea Y changes to belonging to X

X imbibes $Y = X$ changes to having an idea Y

X takes Y for $Z = $ There is a relation R between X and Y and X thinks that Y is Z

Y seems Z to $X = $ There is a relation R between X and Y and Y causes$_n$ X to think that Y is Z

X understands Z by $Y = $ There is a relation R between X and Y and X thinks that Y is Z

Y means Z to $X = $ There is a relation R between X and Y and Y causes$_n$ X to think that Y is Z

X blames Y for $Z = $ There is a relation R between X and Y and X has a negative opinion about Y, thinking that Y causes Z and Z is not good for X

X blames Z on $Y = $ There is a relation R between X and Y and Z is not good for X and X thinks that Y causes A, having a negative opinion about Y

5. Verbs of locational transfer

5.1 The last semantic class distinguished in this study comprises verbs which share the meaning of both transfer and location. The place identifying the Locative is either covered or filled with the object identifying the Affective, which action is instigated by the Agent. Thus, the Agent brings about a certain relation of physical contact between the Affective and the Locative. The relevant examples are the following:

X smears A on $Y = X$ has A and X transfers A onto the surface of Y, causing$_i$ the surface of Y to have A on it

X smears Y with $A = X$ has A and X causes$_i$ the surface of Y to have A on it, transferring A onto the surface of Y

$X \begin{Bmatrix} \text{heaps} \\ \text{loads} \end{Bmatrix} A$ in/on $Y = X$ has A and X transfers A onto/into Y, causing$_i$ Y to have A in/on it

existence of a separate level of thematic meaning which enables the explanation of differences between converses as a function of the whole sentence. This, as he stresses, presupposes a close interaction of semantics, the lexicon, syntax and phonology. The distribution of converses is determined by the thematic organization of the sentence, which implies that there is a relationship between Functional Sentence Perspective and the lexicon. The essence of converseness can best be explained in terms of the vorbalization processes (Chafe 1977) or the expression and comprehension processes (Fillmore 1977). According to Fillmore's approach to lexical semantics, meanings are relativized to scenes. Each word can be thought of as activating a scene and pointing to a certain part of that scene. Fillmore claims that a real-world scene is somehow interpreted by the speaker who wants to convey it through linguistic means. While expressing (understanding) the meaning, the speaker (hearer) is viewing a scene from a particular perspective, i.e. he is focussing on some aspect of it. This includes the decision which elements should be taken into account and how they should be organized into a sentence. To take a particular perspective means to decide what to include in the sentence nucleus, what to move to the periphery, and how to rank the nuclear elements. "The nucleus is the part of a sentence that contains a predicating word and the grammatical terms that are linked with it. The periphery is the remainder" (Fillmore 1977:94). On the example of a commercial act Fillmore shows how different lexical items (*buy, sell, pay, spend, cost, charge*) activate the same scene schema but with different elements put in the perspective (Fillmore 1977: 104–109). Having this in mind, we can say that two converse terms refer to the same cognitive scene but focus on different elements of it. Let us illustrated this on the example of the pair *rob* and *steal*:

    X robbed *Y* of *A*.

    X stole *A* from *Y*.
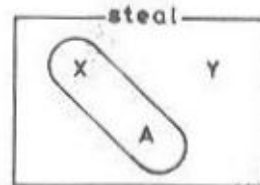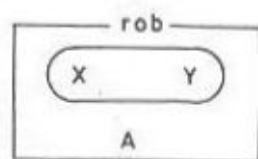
The elements taken into perspective are in an enclosed curve. With 2-place converse terms the same elements are included in the nucleus, but their ranking is different, which is reflected in the different syntactic structure (reverse order).

Chafe (1977) points out several types of verbalization processes:
— content related processes (structuring the recalled experience),
— packaging processes (speaker's assessment of the addressee's current state of mind),
— syntactic processes.

Further, he subdivides content-related processes into: subchunking

(breaking down the recalled experience into smaller events), propositionalizing (factoring out from an event of the objects involved in it), and categorizing (finding appropriate word or phrase to express the objects that participate in the event). It is propositionalizing that is of interest to us here and it can be referred to as taking a particular perspective on a scene. In other words, it includes the factoring out of elements from an event or situation and the assignment of roles to these objects. Thus, it is evident that the choice of a particular linguistic item from a set of items referring to the same event is strictly connected with our decision as to propositionalizing. Converse terms have different inherent propositional structure, thus providing alternative choices as to the interpretation of the event.

What Fillmore refers to as perspective, or Chafe as propositionalizing, can be treated as focus (Esau 1975). Focus is that element of a proposition that the speaker establishes as the center of attention. It can be realized through the interaction of various topicalization processes (Esau 1975): lexical, syntactic and phonological devices. Each verb in a lexicon carries a provision for focus selection, i.e., is usually marked for the element of the proposition that is normally topicalized (e.g., Agent in action verbs). This focus provision inherent in a given predicate is treated by Esau as the lexical topic. He states that "the lexicon gives some options for focus selection by providing two or more lexical items with the same range of meaning but with a different lexical topic (*possess/belong to*)" (Esau 1975:355). All pairs of converse terms fulfil this condition.

In view of the above, Lexical Converseness can be thought of as a lexical topicalization device providing options for taking a particular perspective on a given scene and ranking the elements in a proposition.

From this functional point of view, there is an analogy between Lexical Converseness and Passive Voice, the latter being, however, more general and productive. In spite of this functional analogy, there is a difference between the two categories consisting in the fact that in converse terms we have an integration of the content and the propositional structure built in it, while the passive syntactic process superimposes externally and in a regular way a new topic onto the topic inherent in a given lexical verb (Esau 1975:356). So, the two categories, though they are similar and in the most general way can be treated as synonymy *sensu largo* function on different linguistic levels. It is worth indicating here that for some verbs both Passive Voice and Lexical Converseness can be used alternatively to change the structure of the sentence, for others only one possibility is available.

Our discussion has shown that converseness is a category which merits deeper semantic and syntactic investigations. Its place in semantics is particularly important in view of the attempts to establish semantic models of particular languages and to find some sort of a universal description of language as such. How it operates in different languages may be a subject of detailed comparative studies.

LITERATURE

ANGUS MACQUEEN

FORM AND THE SEARCH FOR MEANING
IN WILLIAM LANGLAND'S *PIERS PLOWMAN*

I

With its vast length and three versions, the structure and design of *Piers Plowman* has always been elusive. A search, a debate, a sermon, the poem is both cyclical and linear, allegorical and naturalistic with a language both learned and homely. G. R. Owst (1933: 295–296) concluded that *Piers Plowman* is no more than "the quintessence of English Medieval preaching gathered up into a single metrical piece of unusual charm and vivacity". Manifestly true though this is in terms of the encyclopaedic use of form and content, the poem, unlike medieval sermons, has consistently escaped coherent interpretation as a whole[1]. It displays none of the formal order of such literary counterparts as *The Pearl, Sir Gawain and the Green Knight* or even in conceptual terms *The Canterbury Tales. Piers Plowman* is so contorted that many critics have even argued that various parts of each text were written by different authors[2]. Despite all these problems, no one doubts that didactic impulses akin to those of the sermon are at the heart of this poem.

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[1] Confusion often starts with the labelling of the various parts of the poem. W. Skeat in his 19th century edition of the poem splits Piers Plowman into a "Visio" (including the Prologue and Passus I–VII) and a "Vita" (Passus VIII–XX). There is no authority in the B-text for this though many A-MSS speak of *Visio Petro Plowman and a Vita de Dowel, Dobet and Dobest Secundum Wyt and Reson.* Skeat (1886) went on to analyse the two sections as different poems. Schmidt in his Introduction to the Everyman Edition (1978) dismisses this as a totally artificial split and moves his attention to a later pivotal moment. While treating the poem as a complete whole, this article argues for the very definite change of direction at the end of Passus VII and for convenience uses Skeat's terms. Attempts to split the poem up under the headings "Dowel, Dobet and Dobest" have also caused great problems. As Schmidt (1978: XXI) says "these headings must be treated with caution when analysing the poem".

[2] Along with other critics, I can only refer the reader to George Kane's *Piers Plowman: The Evidence for Authorship.* Since its publication it has been possible to proceed with the

The difficulty does not seem to arise from any "poetic ambiguity"; Langland's revisions show desire for clarity and directness in his use of language and the various literary forms employed. His intentions are clear from the beginning of the C-text Prologue. In the B-text the dreamer introduces the field of people with:

> I seigh a tour on a toft tricliche ymaked.
> A deep dale bynethe, a dongeon therinne. (B. prol. 14-15)

This becomes

> And say a tour — as y trowed, Treuthe was there-ynne.
> Westward y waytede in a while attir
> And seigh a depe dale-Deth, as y leue. (C. prol. 14-16)[3]

While the revision is never consistently as rigourous as this and was intended — this article hopes to suggest — also as a commentary on the B-text, Langland throughout the C-text opts for the more explicit form even if it is less poetic. Yet as a whole C-text is hardly more coherent than the B. Some critics have therefore resorted to praising the poem's imaginative unity and have hedged on the formal disorder or lack of shape. Lawlor (1962) talks of its "penetrating clarity and largeness of vision [...] side by side with the very taste of purposelessness".

This article will not attempt to impose an overall form but to suggest that the shifting from one literary procedure to another, the complexity and indirection of the method mirrors the search of the poet and his dreamer. The poem is full of form but none stands alone and unchallenged; meanings given are not merely posited but examined. Thus while the intricate weaving of verse structure reflects the completeness of *The Pearl*, incompleteness and relativity dominate *Piers Plowman*, most obviously brought out by the series of beginnings in the poem. No one paradigm of understanding provides access to the whole though there is a movement towards and away from the moment of Christ's harrowing of hell. The reader's problems are exacerbated by the existence of the three texts; Langland's extensions and revisions show not only changing conceptions but also renewed battles with the material. The dreamer's search lies in the meaning of words, and he comes up against

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assumption that one author wrote all three versions, A, B and C. Arguments against this have often depended on close textual analysis which has been made irrelevant by Kane's proof of the textual corruption. The unity of the three texts is perhaps best attested to by the fact that there is little consensus as to which sections were written by which authors. For those interested, the great propounder of this theory of multiple author was Donaldson in *Piers Plowman: The C-Text and Its Poet*.

[3] All quotations in the article come from Schmidt (1978) for the B-text and Pearsal (1978) for the C-text. Skeat's 1886 edition of the poem provides a parallel text and a full list of the additions and changes between them. The basic discussion of the poem will take the B-text as its base due to its wider accessibility and greater poetic value (cf. Critics' treatment of Wordsworth's two versions of the *Prelude*).

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the inability of form and idea to go beyond them; Langland's other search through his various revisions was how to reflect this inability; both dreamer and poet can be found in Eliot's:

> That was a way of putting it — not very satisfactory:
> A periphrastic study in a worn-out poetical fashion
> Leaving one still with the intolerable wrestle
> With words and meanings. The Poetry doesn't matter.
>
> (*Four Quartets, East Coker, II*)

II

> "It were ayeins kynde" quode he "and all kynes reson
> That any creature should konne al except Crist oone".
>
> (B.XV.52-53)

In that *Piers Plowman* is about "al", is encyclopaedic in both purpose and method, and in that Anima's rebuke applies to Langland as much as to the Dreamer, the presence of a totally coherent and complete structure and progression in the poem is not to be expected. While instruction, religious and social, are the goals of the poem, Langland is no more capable of coming to a position of complete knowledge on his own than the dreamer or reader. This may in part explain the introduction of the autobiographical section in the C-text, identifying the flawed poet with the dreamer figure and the human weaknesses of the Seven Deadly Sins. Langland is trying to clarify issues and ideas, which he himself struggles to grasp in the same way as the Dreamer; the poem is less a search for answers, which are provided by the Bible and other authorities in conventional medieval fashion, than an exploration of those answers. As early as Passus V Holy Chirche has told the Dreamer, who seeks to save his soul, about Love, Truth, Charity and Nature, words to prove so crucial in the later passus and used by the whole range of "characters". But it is clear that words are not enough, they involve application in the social sphere and understanding in the spiritual. It is at these levels that definition comes in, and it is in the search for methods of definition that Langland employs so many literary techniques, often simultaneously. He scours rhetoric, grammar and literature in his attempts to express the meaning of these ultimate truths. No one frame holds a complete solution just as each meeting in the central section must lead to another.

The poem cannot be a simple linear progression to "Treuthe", however; the poet can only tentatively produce images for it expressed in particular forms: hence the poem seems to the modern reader to be awash with a profusion of *exempla, sententiae* and authorities which hinder the flow of the poem. The images he uses for these ultimate mysteries tend to come from the New Testament story and its whole relation backward to the Old Testament and also in his fictional creation of Piers. Unlike these "authorities", the patterns which he creates to open up meaning are never permanent. The

dreamer momentarily grasps them but they are transitory, swept up in the conflict with evil and dispersed by the cycles of nature. The poem openly registers this by closing not with an image of potential salvation but by returning to a beginning. This does not negate the progress and understanding, particularly spiritual, achieved by the Dreamer through his least partial insight into the significance of Christ's sacrifice in its full context (even though he wakes up and later begins to ask questions as before). It is the state of the world that has not changed: the struggle with Evil undermines everything (for example "the hous Uniti") except personal paradigms of understanding partially digested and applied.

Thus the poem ends with a world no closer to salvation or understanding that it started and Conscience sets out on a Pilgrimage to find Piers, just as the Dreamer and Piers set out at different times earlier in the poem. The dichotomy between the individual and the world is set up with the shift from the social to the internal abstract landscape that follows Piers's rejection of the Pardon and the community. The shift of focus occurs between Passus VII and VIII as the poem itself takes up Piers's decision to forsake the social world: "I shal cessen of my sowying' quod Piers and swynke nought so harde" (B.VII.118).

The role of the dreamer also changes. He moves from being a passive external observer (such as the Dreamer in *Winner and Waster*) to a participator much closer to the questioner in *The Pearl*. Thus at the opening of the Poem he describes the Field of People, The Seven Deadly Sins and other scenes from a distance (apart from his conversation with Holi Chirche); by Passus XX, the position is reversed when he learns about Old Age:

> "Ye-leve-lurdeyn?" quod he, and leyde on me with age,
> And hitte me under the ere — unnethe may I here.

<div align="right">(B.XX.189–190)</div>

This transfer from a single stable point of observation to a less coherent, more fragmentary vision supports the gradual undermining of the surface meaning of words and the realization of the complexity that lies behind. Indeed it is important to note how the role of the dreamer alters in each of Langland's versions.

In the short A-text with its concentration on the social world the split role of the Dreamer is clear; in what Skeat calls the "Visio" [4], the Dreamer neither participates nor interprets. Thus there is surprise when in the next Passus the Dreamer begins to take on an active role:

> "Contra" quath I as a clerk and comside to dispute.

<div align="right">(A.IX.16)</div>

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[4] See note 1. In the A-text, Visio is the Prologue and I-VIII, in the B-text, Prologue, and Passus I-VII, and in the C-text, Prologue and Passus I-IX.

Up to this point the reader has not been asked to consider him, and the ability to dispute in an educated way comes as a shock, signalling a very definite change in direction. The B-text develops this; thus the Dreamer remains apart in the Visio, and only after the tearing of the Pardon does he emerge taking the vastly extended poem with him away from the social level and into the internal spiritual sphere [5]; the search for "Treuthe" has changed its nature and will not be found in social pardons, organization and worldly images of unity but in the internal unity of man with God.

The C-text develops the relationship further with the introduction of the famous Confession (C.V.1–108), allowing the author to repent before the figures of the Seven Deadly Sins. While the distance between the dreamer and the other scenes of the Visio, which appear as if on a medieval stage, is not breached, the confession brings the reader significantly closer to the author and the author to the position of the dreamer. Thus when the shift takes place and the dreamer participates in the search for "Treuthe" the poet is now involved as well as a figure who has already debated and discussed. Langland is here, dreamer, searcher and sinner attempting to shape and communicate his flickering understanding, though it is important to remember he retains his control as a poet. As George Kane (1965:15) points out: "The poets invite us to identify the narrators with them, and then by the character of the naration caution us not to carry out the identification". The significance is that while the narrator is not to be completely identified with Langland, nor is there necessarily any autobiography — some of Will's aggression and misunderstanding preclude this — Langland as a man clearly identifies himself with the limitations and fallen nature of his dreamer [6]. Therefore complete knowledge and clarity are not his either and his poem simulates all the contortions of human struggle. He also is involved in the basic urge of the poem to quest, to pilgrimage after "Treuthe" whether it be in the social sphere or the spiritual. The changes between the three versions of the poem confirm this tendency towards an image of fragmentary man.

In Passus I the Dreamer asks Hali Chirch how he may save his soul and is told to look for "Treuthe". The rest of the poem is an attempt to arrive at some sort of destination but the path and method are not laid out; nor is the nature of the search immediately obvious to either the Dreamer or

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[5] Note the way the definitions of Dowel, Dobet and Dobest change in the revision of the A-text into the B-text. The definitions in the A-text reflect its largely social interests while in the B-text they are suitably spiritual and religious in terms. The comparison quickly highlights the fundamental change of intention that informs the B-text.

[6] A comparison with Chaucer's narrative techniques suggests how sophisticated the devices were in the Middle Ages. While Langland was trying to draw himself and the reader into some sort of identification, Chaucer was consistently trying to put distance between himself and his narrator in *The Troilus* and *The Canterbury Tales* for obvious ironic purposes.

the reader. Therefore there occurs the sudden shift from the Visio's examina-
tion of society and its images, of how a servant of "Treuthe" and how to
behave into a much more abstract examination of what truth might mean.
The former can clearly not be achieved without the latter and the final
passus of the poem suggest that a momentary understanding is not enough
on this earth. Langland with his extensions and revisions was obviously
equally unclear in what direction the path led, and tried to portray the
tortuous trail that he himself had also followed.

III

The related problems of a language which doesn't communicate clearly
and the inadequacy of human perception appear from the beginning. The
Visio in its examination of social relations and human behaviour highlights
the whole semantic problem as different figures use words and concepts to
opposing ends. This misunderstanding leads to the rejection of the Pardon
by Piers, who realises it is not quite what he had imagined: pardon is
granted to those who work "wel" but no definition of "wel" is given. The
confrontation between Conscience and Lady Mede[7] in the court also
dramatises this. The King's acceptance of Lady Mede's arguments is not
caused by any gross evil on his part but by a difference of definition and a
lack of discrimination. When Lady Mede argues that she is vital, citing the
Burgundian Wars, there is no doubt that she is rational in her own terms. It
takes Conscience's definitions of the types of Mede to make things clearer:

> That oon God of his Grace graunteth in his blisse
> To tho that wel werchen while thei ben here.

(B.III.232)

and

> There is another mede mesurelees, that maistres desireth:
> To mayntene mysdoers mede thei take.

(B.III.246–247)

He then goes on to cite the Bible as authority; only through the
introduction of external moral judgements and values (in the nature of
Conscience) does the distinction appear. In the C-text Langland introduces a
revised distinction between mede and mercede which he then goes on to
support with a new long grammatical analogy. Thus the problems of

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[7] Lady Mede is clearly set up as a figure in opposition to Hali Chirche; she herself,
however, is merely one of the "companions" of Fals and Favel (Deceit), whose full significance is
not really explored until the closing passus. Mede and money are also discussed elsewhere in the
sections on poverty and purity which occur during the search for Dowel, Dobet and Dobest.
This is a typical example of the way the poem works over material and concepts in different
ways at different stages; the variety of methods and contexts casting different lights.

understanding even such comparatively simple words and concepts in a useful
way point forward to the struggles to come; the methods of resolving them
are similar: analogy, hierarchical distinction — indeed all those common to
the rhetorical, grammatical and sermonizing traditions of the day.

Crucially the problem reappears when Langland attempts to image the
idea of the Trinity. This he does three times symbolising man's incompre-
hension, that man does not have the ability to conceive of this unity. He
employs the idea of a tree with three supports (which is also used to imply
Eden, the apple, knowledge) (B. XVI.13–64), the image of the hand and fist
(B.XVII.140 ff), and the taper, wax and wick (B.XVII.205 ff). It is obvious that
none of them can satisfactorily convey the Unity of three in one and that
these conventional images of it importantly fall short of the ultimate com-
pleteness. Language on its own is not enough.

Nor does language resolve the problem of Lady Mede; Conscience's
discourse does not persuade the King and it takes the dramatic scenario of
the test case (another literary mode of presentation), when Lady Mede's lack
of morality is revealed in her intriguing on behalf of Crime for the King to
be convinced. Quite apart from the very radical social points Langland is
making (which critics have concentrated on), this is the first example of the
problems of definition which lie at the heart of the second section of the
poem. The variety of definition is a result of the way each individual (or later
each faculty) sees only the confused patterns and interests of their own lives;
as on the widest scale Hali Chirche asserts:

> The mooste partie of this peple that passeth on this erthe,
> Have thei worship in this world, thei wilne no bettre;
> Of oother hevene than here holde thei no tale.

(B.I. 7–9)

They can only see through their own frame.

It is to unify these definitions, to seek out the source of this lack of
cohesion that the poem and the Dreamer set out after the Visio. Initially the
search is sfter "Dowel, Dobet and Dobest", using hierarchy as the structural
frame on the world and reality. As seen above such frames are necessary to
man but fail miserably to convey such concepts as the Trinity, which is a
hierarchy without hierarchy. The dreamer is now being forced to discrimi-
nate and to question himself in the sense that the definitions are now being
made by personifications of his own faculties. Conscience of Passus X is no
longer the social moral figure of the Visio, but an internal faculty attempting
to guide the Dreamer who has himself become a faculty[8]. Instead of being

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[8] The shifting of Conscience from an external to internal force without any signposting is
typical of the poem. The personifications are interesting not as names but for what they stand
for. A word only carries real significance when its meaning is understood; names in themselves
can clearly stand for subtly different things. Note also how in the various different versions

asked to observe, the basis of his observation is being studied, and his powers of perception developed. The dreamer becomes "will", the faculty which is stressed as the central feature of humanity. It is "will" which gives Man his freedom of decision and causes individuality and choice. Its importance is emphasized when Anima discusses the difference between "Clerkes" and Piers:

> "Clerkes have no knowyng", quod he, "but by werkes and by wordes.
> Ac Piers the Plowman parceyveth moore depper
> What is the wille and wherfore that many wight suffreth".
>
> (B.XV.198–200)

(Note it was only through "*wordes*" and "*werkes*" that the King had understood.) Throughout the poem it is underlined that for all God's omnipotence, he never compromises the individual's will, the ability to make decisions. But at the same time man possesses a type of knowledge which is clearly not immediately capable of divining "deeper" things; here lies the centre of the poem and its meaning. Thus the dreamer is personified by the faculty which distinguishes man from other elements of creation; only with "will" can all the faculties build to make the coherent whole of a man who has committed himself to God.

The Dreamer has been transmuted into the protagonist. He argues with Scripture and Study, and he reacts violently to the Friar at the meal with Conscience and Patience[9]. No longer does he act as a cipher for the reader; the reader must react and discriminate and not merely translate the allegories and *exempla*. Guideless, without a controlling stable vision, such translation and understanding can never be simple.

The personification and faculties display the same partial vision found in the Visio. Thus the whole variety of definitions of the hierarchy "Dowel, dobet, dobest" are not wrong as such, but each is the product of limited perception. Indeed the hierarchical approach can in itself be seen as sign of this inadequacy; the idea of a clear progression from one state to another is shown to be unsatisfactory as the rather unsuccessful application of this triad to the whole structure of the poem suggests. It is rather Langland's explora-

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Langland alters names, removes "characters" and gives material from one to another. Thus the material from Haukyn, who disappears from the C-text, can be traced in part to sections of the Visio.

[9] One aspect of meaning that is not being covered by this article is the translation of complex allegory with all its levels. It is certainly not as simple as Coleridge's definition of allegory as a mere "translation of abstract notions into a picture language" (Coleridge's *Stateman's Manual*). Allegories as a reader of the scene of Conscience's Dinner in Passus XIII will be aware are multilayered with the literal level and the translations requiring careful unravelling and relating to the wider context. This clearly relates to the way Langland saw meaning in its range and variety and the medieval imagination does seem to have been naturally allegorical.

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tion of another method of structuring reality. The Dreamer is thus in search of the faculties or images which unify his perception. Ymaginatif is the first such figure. He tries to make a real pattern out of the positions taken before, attempting to draw together the statements of Study, Reason and Nature. All he leaves are words, however, which need further definition; he reintroduces Charity as the central concept which will be central to the relationship between the Old Law and the New Law of Christ. Anima is the second cohesive personification; the cohesion is badly needed. After meeting all the various figures:

> Ac after wakynge it was wonder longe
> Er I koude kyndly know what was dowel
> And so my wit weex and wayned until I a fool were.
>
> (B.XV.1–3)

Anima is a unifying force in his own right; he informs the Dreamer that he is associated to the soul, the mind (or reason), the memory (a faculty which Ymaginatif uses to describe himself), sense, intelligence, conscience and love,

> .... now thow myght chese
> How thou coveitest to calle me, now thow knowest all my names
>
> (B.XV.38–39).

She then attacks the Dreamer for pride "for swich a lust and likyng Lucifer fel from hevene" (B.XV.51) because "thou wouldst know and konne the cause of alle hire names" (B.XV.45). It is here that she asserts that only Christ can know "al". This is a pivotal moment in the search. Man cannot achieve knowledge through his own faculties. Now the Dreamer understands what he was told by the Hali Chirche in Passus II, in other words that he cannot achieve meaning on his own. Anima discourses on the nature of Charity and the Dreamer exclaims:

> "By christ! I wolde that I knew hym! quod I, na creature levere!"
> "Withouten helpen of Piers Plowman", quod he, "his person sestow nevere",
>
> (B.XV.194–195).

Real guidance comes from outside. Anima is the figure who perceives that man and equally his conceptions cannot have coherence without the passion of Christ. For the first time the reader and the Dreamer become aware that the search has not been for concepts as such but for the meaning of man's existance. When he goes forward he must be aided by something outside himself, in this case it is the figure of Piers Plowman.

This is brought to a head by the extraordinary handling of the Bible ranging through the Old Testament to the passion and harrowing of hell. The telling of the final passion story and the presentation of the figure of Piers Plowman sum up the impressions made before. The story rushes through to Good Friday, only for the Dreamer to wake up from his dream

within a dream to meet Abraham (faith), Moses (hope) as a figure of the Old Law, leading to the tale of the Good Samaritan, seen as Charity and the New Law to be set up by Christ. Langland's mosaic of meetings underscores that human sense of chronology and sequence is irrelevant for the patterning of Christ's forgiveness to be understood. Abraham informs the Dreamer that "have I been his heraud here and in helle" (B.XVII.247), and goes on to talk about John the Baptist, another herald. The concept here of the Old Testament only being fulfilled by the New was common and is related to the idea of Figura, which Erich Auerbach discusses in his collection of essays *Scenes from the Drama of European Literature*. This holds that the significance of an event lies not merely in itself but in its fulfilment in the future, or its prefigurement in the past; in its own right nothing is complete. "Figura is something real and historical which announces something real and historical. The fulfilment is often designated as *veritas* and the figure as umbro and image" (Auerbach; 1959: my italics).

The figure of Piers the Plowman can be seen in this light as well. His initial appearance as the honest plowman and administrator organizing a community only to reject it to search further is in some ways made sense of and fulfilled by his appearances in the spiritual sections of the poem as guide, knight, Christ himself and Peter. He even receives another pardon:

> And when this ded was doon Dobest he thoughte
> and yaf Piers power and pardon he grauntede
>
> (B.XIX.183–184)

The later pardon of Christ's forgiveness is prefigured in the earlier social pardon. Piers' momentary appearances are epiphanies only made sense of when attached to *veritas*; almost platonic, everything in shadowy until made sense of through moments of light.

The unity provided by Christ's passion and the harrowing of Hell is underlined by the arguments between the four maidens, Rightwisnesse, Truth, Mercy and Pees who have come to the gates of Hell from the four points of the compass. The dispute displays the lack of total perception without an understanding of the New Law symbolized by the passion and redemption. When Mercy suggests that Christ is coming to set free those in Hell, Truth, supported by Rightwisnesse, rebukes her:

> I *truthe* woote *soothe*
> For that is ones in helle out cometh it nevere.
>
> (B.XVIII.147–148; my italics)

They cannot conceive of the possibility of Christ's forgiveness and Charity. Yet this was the "Treuthe" after whom the initial quest was started; this "Treuthe" must acknowledge her mistake when Christ has opened the Gates of Hell:

> "*Trewes!*" quod *Truth*, "thou tellest us *sooth* by Jesus!
> Cleippe we this covenant and each of us kisse other".
> "And let no peple", quod Pes, "parceyve that we chidde
> For impossible is no thyng to Hym that is almyghty".
>
> (B.XVIII.418–421; my italics)

And then they dance in Unity. With Truth herself having to acknowledge her own mistake, Langland is making his final statement about the nature of meaning in this world and clearly linking it to the ultimate religious moment of the poem.

After this culminatory dance of Unity, the Dreamer wakes up and goes to Mass, where he falls asleep again to dream about the passion. He must now relate his awareness to the world he lives in and the society which he had observed in the Visio. The perception of it has now changed; while the Visio was a colourful if dark picture of humanity and its vices, it had few of the nightmarish qualities of these last two passus. Pearsal in his introduction to the C-text (Pearsal 1978) draws parallels between the portrait of the Seven Deadly Sins and the work of Hieronymus Bosch; the comparison would be apter to these visions. They are of apocalypse and a church overhelmed as Grace warns:

> And wepne to fighte with that wole nevere faile,
> For Antecrist and hise al the world shul greve,
> And acombre thee, Conscience, but if Crist thee helpe.
>
> (B.XIX.219–221)

The Antichrist is on a totally different scale of evil from Lady Mede or others in the Visio; here is an abstract absolute force appearing as an army and figuring in many different guises:

> In ech a contree ther he cam he kath awey truthe
> And gerte gile grow there as he a god were.
>
> (B.XX.56–57)

The whole scope has opened up as the Dreamer returns to society and at the centre of this evil is the idea of pretence. It is the insiduous gile of the Friar that undermines Unity misusing words and meanings, twisting and turning them to his own use. Impreciion of language and understanding is now clearly a source of evil and a weapon of the Devil.

The Dreamer does not return to his observation of the Visio; he is forced now to understand the meaning of need and the importance of moderation. Most significant is his lesson on the reality of time dramatically given by Old Age. The meaning he has found in Christ, and which he continues to seek for, does not take him outside the natural processes and the world around him. That is a world of violence and movement, corruption and deceit. Langland throughout the poem has painted the grim social picture (particularly in the C-text) and it can be held in the words of Lewed Vicory:

"For the comune", quod this curator, "counten ful litel
The counseil of Conscience or Cardinale Vertues
But if thei sowne, as by sighte somewhat to wynnyng.
Of gile ne of gabbyng gyve thei nevere tale
For Spiritus Prudence among the peple is gyle.
And al the faire vertues as vices thei semeth".

<div align="right">(B.XIX.454 459)</div>

In the Visio, Hali Chirche had talked of how noone holds "nevere tale" of another world, and here it is extended to a complete disregard, even unawareness, of virtue and vice. Meanings and values are totally confused. Will's moment of understanding and perception of unity is impermanent under the pressure of society around him and of man's transient position in this world. Everything is fluid. Conscience sets out again in search of Piers. The cyclical nature of the poem and the world is emphasized and the linear progress of the dreamer can only be held in that context.

<div align="center">IV</div>

The previous section has concentrated in a linear fashion on the search for meaning towards and away from the culminatory moment of passion and unity when Pees, Rightwisnesse, Merci and Truth dance, a dance which Langland clearly sees is impossible in present society. Thus in the conventional image Good is seen to fight with Evil in the next Passus. While the linear progress, the circular repetition in new form and the prefiguring of events are structurally vital, it is important to keep in mind the sheer indirection of the poem. This is due in part to the impediment of unprecise language and the whole problem of communication. But it is also due to Langland's desire to convey the chaos and murkiness of life, which makes the poem so much more than an abstract theological or philosophical debate. The milling crowds in the Field of People of the Prologue is a useful image both for the social and intellectual aspects of the poem. There is shape given by the hill and the valley, but as a participator in the middle man has the impression of indirection and attempts have to be made to grasp the world around [10]. But equally he must be made aware of the limitations of the tools he has at his disposal. Neither social nor semantic structures will provide complete stability.

The Dreamer, indeed Langland and the reader as well are all actors in this. As Lawlor (1962) points out, during the poem "the Dreamer comes face to face with his own experience, long known but little attended to". The

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[10] Compare the nature of the Dreamer's search with the clearly staged quest of the Redcrosse Knight towards Holiness in Spenser's *The Fairie Queene*. Langland's landscape is much closer to Pieter Bruegel's in his picture *The Crucifixion* with the central figures in the centre of the picture but almost lost there. Direction and pathways are not clearly laid out.

variety and structural complexity, the sense of incompleteness, the digression that is ever present, stand as an image of this experience. As a poet, Langland has pulled together this range of material and method and achieves a co-ordination of the real and the spiritual, the human in its muddle and the heavenly in its unity.

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MAŁGORZATA TREBISZ

THE NECKLACE MOTIF IN *LA PARURE, PASTE* AND *A STRING OF BEADS*

Guy de Maupassant, Henry James, and William Somerset Maugham — three distinguished literary figures representing different nationalities, distinct in their literary practice, attitudes, philosophy; three great individuals escaping any common classification or direct comparison — have happened to write, at some time or other, the stories whose most striking affinity at first sight is the common subject — that of true-false jewelery and their possible substitutions. A closer examination will reveal some shared features of the stories' structure, and the significance of some elements seems to indicate that the apparent likeness may be more than accidental.

La Parure was actually preceded by an earlier version of the Maupassant's story entitled *Les Bijoux* (*The Jewels*) which was written when Maupassant, probably at the age of thirty-three, was enjoying the comforts and pleasures of the life of a widely acknowledged writer. However, *Les Bijoux* was a failure. Still, the story served its purpose well, as a year later it appeared, transformed, as *La Parure* (*The Necklace*) labelled as "one of the most famous short stories in the world" (Steegmuller 1963: 307).

Henry James' story *Paste* was directly inspired by that "little perfection"[1] of *The Necklace*.

William Somerset Maugham's inspiration for the two pieces *Mr Know-All* and *A String of Beads* is less obvious but his passing remark in the latter that stories of genuine pearls passing on for paste are "as old as the hills" (Maugham 1955, 1:452), and his great love for Maupassant conceived early

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[1] Henry James openly confessed in the Preface to *The Author of Beltraffio* that "The origin of *Paste* was to consist but of the ingenious thought of transposing the terms of one of Guy de Maupassant's admirable contes". After a brief account of the situation in *La Parure* he adds (James 1962: 237–238): "It seemed harmless sport simply to turn that situation round — to shift, in other words, the ground of the horrid mistake, making this a matter not of a false treasure supposed to be true and precious, but of a real treasure supposed to be false and hollow; though a new little drama, a new setting for "my" pearls — and as different as possible from the other — had of course withal to be found".

in his youth [2] may indicate that he was not all that ignorant of the narratives of his older colleagues.

Of the five stories referred to above, three have been chosen for a closer analysis: *La Parure, Paste*, and *A String of Beads, Les Bijoux* being generally discredited and *Mr Know-All* not fully fitting the preconceived pattern of analysis.

Maupassant has been chosen for the leading figure in the comparison on the grounds that his pattern of the story and the general intention of the developed theme, as I will attempt to demonstrate, are to some extent revealed in the remaining two, indicating that neither James nor Maugham had been ignorant of the Frenchman's masterpiece [3].

The analysis of the existing affinities between the three works follows the lines of the traditional theory of the short story, its basic principles being briefly discussed below.

I. The definition of the short story as a genre still remains an open case, and critics attempting to solve the problem precautiously stress that all conclusions should be treated only as provisional. No generally accepted definition of the genre or a satisfying descriptive vocabulary have yet been offered (Strzetelski 1976: 33). An attempt may, however, be made to select the elements more or less consistently recurrent in those multifarious propositions and definitions, thus establishing some terms of reference.

The most commonly discussed aspects of the short story are:

(1) Intensity — caused by the restricted time limits of the story and the specific reductive effect which it ultimately produces (Reid 1979: 1–2; Cieślikowska 1961: 222).

(2) Dramatic representation of reality which can be compared with drama proper — quick revelation of successive events, action developed through dramatic scenes, focus on some central conflict in which the characters are involved (Cieślikowska 1961: 222–228; Taylor 1973: 5).

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[2] In his book *The Summing Up* which is treated as the most personal statement of W. S. Maugham on his own life and his life's work the author writes: "I knew nothing about writing. Though for my age I had read a good deal, I had read without discrimination, devouring one after the other books I had heard of to find out what they were about, and though I suppose I got something out of them, it was the novels and short stories of Guy de Maupassant that had most influence on me when I set myself to write. I began to read them when I was sixteen. [...] Thus I managed to read most of Maupassant before I was twenty. Though he does not enjoy now the reputation he did then, it must be admitted that he had great merits. He was lucid and direct, he had a sense of form, and he knew how to get the utmost dramatic value out of the story he had to tell. I cannot but think that he was a better master to follow than the English novelists who at that time influenced the young" (Maugham 1979: 109).

[3] No direct cross-references of Maugham concerning Henry James exist; perhaps the only sign of his knowing *Paste* is the character of Miss Robinson being, like Charlotte from *Paste*, a governess descending from a clerical family (allusion to Arthur Prime?).

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(3) Controlled plot and structure consisting of conflict, sequential action and resolution (Reid 1979: 59).

(4) Focus of interest on the character in action — action revealing full characterization and potentialities of the human being (Brooks, Warren 1971: 168).

(5) Strong requirement for change — change as opposed to mere physical progression of the plot, the reader's interest being in what that change reveals (Taylor 1973: 4).

All the discussed above points contribute to the totality of the short story, also called the single effect or impression on the reader. Bearing in mind Edgar Allan Poe's conception of the unity of impression as a product of conscious artistry it may prove helpful to quote Taylor's view on the short story's totality. For him it is the unity of design consisting of all the elements of the story and the reader must see it "undisturbed" if the story is to evoke that "single effect" for him. In other words, the continuity of our emotional and intellectual responses must not be broken. Every part of the short story is so much a part of a whole that there are no convenient stopping points (Taylor 1973: 6).

The necessarily short summary of current views on the short story is by no means exhaustive. It does not mean that such features as concentration on a single character, event or emotion, or insistence upon the surprise ending have been carelessly overlooked and dismissed. The chosen and demonstrated aspects provide the most convenient points of reference in the following analysis.

II. Maupassant's story *The Necklace* belongs to his most popular and familiar short stories, the features of which, quite undeservedly, are frequently over-generalized and ascribed to his other works. This is the result of its being over-anthologized and televised. However, the brief piece enjoyed immense praise when new and the contemporary disfavour to which it has fallen cannot obliterate its obvious merits (Steegmuller 1963: 307). It is certainly worthwhile to analyse how the basic demands of the genre for intensity, dramatic presentation and a carefully controlled plot are met in this case. All these "dramatic" aspects may conveniently be discussed in reference and relation to the classical Aristotelian concept of plot pattern — possessing the beginning (exposition), a middle (complication), and an end (*dénouement*) [4].

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[4] William Somerset Maugham has been particularly fond of this division. In the opening essay "The Art of Fiction" to his book *Ten Novels and Their Authors* (Maugham 1969: 18) he said: "The story the author has to tell should be coherent and persuasive; it should have a beginning, a middle and an end, and the end should be the natural consequence of the beginning. The episodes should have probability and should not only develop the theme, but grow out of the story. The creatures of the novelist's invention should be observed with individuality, and their actions should proceed from their characters".

The story opens with a static exposition presenting the life station of the heroine — Mme Matilda Loisel. It perfectly fulfils the basic demand for the necessary selection of only the indispensable materials. Mme Loisel is characterized by means of her deepest desires which her position does not allow to materialize. This concise description has two functions — by telling what life of comfort and wealth Matilda would like to lead, it helps the reader to guess how sordid her existence really is and also fully depicts the true nature of the heroine. Maupassant's exposition is thus very well illustrative of the Jamesian remark on the nature of dialogue, description, and incident in his essay *The Art of Fiction* (1965:58) where he cannot conceive of those three existing separately. Maupassant's description is narrative as it foreshadows some future events.

The complication develops afterwards as a sequence of dramatic episodes of unequal pace. The tempo up to the climactic incident of discovering the loss of the jewel being slower than that of the events immediately following — two talks between the spouses concerning the invitation on one occasion and borrowing the jewels on another, the borrowing of the necklace, and finally the ball itself. The scenes following the discovery are the hectic search after the valuable loss the selfsame night, then a lapse of a week after which various measures to procure a replacement have been taken. Allowing even a very liberal span of time, the described incidents could not have taken more than two weeks. After the scene of returning of the substituting jewel to Mme Forestier, there again follows a static description of the life of misery and privation of the Loisels. The speed of incidents slackens, they are rendered by means of a summary; ten years are covered in this section. This is actually the moment where action could have been conveniently brought to a halt. The case of the jewels is finally closed. They are paid for and the Loisels have their honour saved. However, this is not the end. There follows a classical reversal of the protagonist's fortune or the so called *Wendepunkt*, the outcome of which is a "surprise" or "twist" ending of the story — a feature that so many critics have insisted upon (Reid 1979:60). It is a single dramatic scene where, in a brisk dialogue, Mme Forestier reveals that the jewels she had lent several years back were false.

To repeat then, the story breaks into two distinct parts, the first containing a fully developed plot-pattern — exposition, complication with a central conflict, and a logical resolution of the problem. Trivial, as the story at this stage may seem, it meets the reader's expectations concerning the unity and significance of action (Brooks, Warren 1971:80). The additional twist ending sheds a new light on the whole and provides some further materials for a more definite interpretation of the story's vital issues.

James's inspiration for *Paste* has already been signalled. Needless to add that the circumstances of his story differ considerably from those in *The Necklace*. The plot structure, however, is visibly reminiscent of Maupassant.

The story opens with a scene which does not proceed beyond the opening statement of Arthur Prime when it is followed by a static exposition where the opening situation is clarified — consecutive funerals of the vicar and his wife, a former actress, her stepson Arthur offering her stage jewels "too dreadfully good to be true" (James 1963:318) to his cousin Charlotte. The scene continues; Charlotte's attention is caught by a singular row of pearls. Her suggestion at their being worth something is taken by Arthur as an offence to his endeared stepmother. His standpoint is further emphasized. The following brief summary is inserted to introduce a new character — Mrs Guy — "a person with a face of a baby and the authority of a commodore" (James 1963:322). A succession of short scenes follows presenting the preparations for the ceremony laid out for the coming of age of Charlotte's employers' son, the staging of *tableaux vivants*, in which the jewels are to be used, included. The climactic occurrence takes place in the shortest of all scenes when Mrs Guy reveals to Charlotte that the pearls are genuine. The following brisk scenes all between Mrs Guy and Charlotte present the attitudes and motivations of both towards keeping and returning the jewels to Arthur respectively. This hectic struggle culminates in a long descriptive paragraph presenting Charlotte's growing attachment to the pearls. Contrarily to *The Necklace* where the dramatic section of the plot is enframed in two passages of description, here the resolution to this fragment is rendered in an additional short scene — the jewels are returned to Arthur who decides to hear some more reliable opinion on the pearls, personally being convinced of a negative answer. A passing remark tells that a fortnight later Charlotte was informed that her suspicions had been groundless.

Similarly to *The Necklace* the plot structure provides here a satisfactory ending. The reputation of the vicar's wife is saved, Arthur Prime's righteousness proved, and Charlotte is taught a lesson. However, not all has been said yet. There is an additional scene taking place after some lapse of time (compare *The Necklace*) at the end of the season, when Charlotte meets Mrs Guy wearing the self-same pearls purchased from Arthur. This is obviously taken after Maupassant, and as in his case, it is not a merely tricky ending but "an ending which jolts us into perceiving something fundamental about what we have been reading" (Reid, 1979:62).

The aim of W. S. Maugham, a great admirer of Maupassant as he has let his readers to understand in *The Summing Up* (1976:109), in *A String of Beads* is clear at first sight — to parody the stories of *Les Bijoux* and *La Parure*. The analogy of Miss Robinson — a humble governess with perfect references, additionally a daughter of a clergyman to similar elements in *Paste* may be more than merely incidental.

Mockery is visible already in the narrative technique. *The Necklace* and *Paste* have been demonstrated to be complete little "dramas" with unexpected epilogues, their actions developing through a succession of scenes

with objective, selective-omniscient narrators present only in the passages of description and summary. In *A String of Beads* the story proper is embedded in a trivial framework narrative — a dinner party, the two interlocutors being table neighbours — a lady named Laura and a gentleman, probably a man of letters. Laura is the narrator observer of the incidents reported. The whole situation and the very subjective narrator give rise to numerous disconnected and chatty intrusions, e.g., remarks concerning the served courses. The disadvantageous effect is distraction of the reader's attention detrimental to the story's precision and intensity.

The action proper is the least complicated of all three narratives discussed. It is in fact a single scene at the dinner party once interrupted by Miss Robinson's exit and return reinforcing the suspense immediately before the ominous solution by "the long arm of coincidence" (Maugham 1955, 1:452). Miss Robinson's string of beads, acquired for fifteen shillings and recognized by one of the guests as genuine, finally finds way to its true owner and the governess receives a solatium of £300. The scene is vivid and amusing, spiced with some indiscriminate ejaculations by some of the less credulous guests. No one gives credit to Miss Robinson's explanations and she would have been taken for a thief had not the gentleman from the jewelery store appeared in time.

The story's overall pattern is true though to the scheme of the previously discussed narratives. The sequence to the dramatic plot closed at this point is further provided in a form of a summary by Laura. The solatium proved to be the source of Miss Robinson's moral ruin. Allowing herself a luxury holiday at Deauville, the perfectly referenced governess became the smartest cocotte in Paris.

III. The analyses of modes of presentation of reality, plot patterns and the time schemes in individual stories indicated certain similarities between the endings in each of the narratives. Endings which are by no means mechanical reversals of the protagonists' fortunes but they yield some additional significance to the stories' themes. Theme will be understood here as

> what a piece of fiction stacks up to. It is the idea, the significance, the interpretation of persons and events, the pervasive and unifying view of life which is embodied in the total narrative. It is [...] what we are to make of the human experience rendered in the story. And what we make of such human experience always involves, directly or indirectly, some comment on values in human nature and human conduct, on good and bad, on the true and the false, some conception of what the human place is in the world (Brooks, Warren 1971:273)."

Bearing in mind that a good story is an "organic unity", remembering about its singleness and totality of effect, that "each element implies other elements and implies them in movement towards a significant end" (Brooks,

Warren 1971:272), the remaining features of the genre concerning the focus on a character in action and the change he undergoes may serve as convenient guidelines in the investigation of the successive themes.

In *The Necklace* the protagonist who undergoes a significant change is Matilda Loisel. The exposition, as has already been suggested, presents her dissatisfied with her station in life[5] — perhaps not even so gloomy as she sees it, the Loisels could afford a maid, outings to the theatre and hunting parties (Maupassant 1963: 301–305). The author skilfully presents objects surrounding Matilda seen through her eyes — the dreary little flat, the frugal meal shared with her husband and contrasts them to the life of luxury and splendour Matilda would have liked to live. The characterization of the heroine is done on the principle of a photograph negative — she is presented in terms of what actually she is not.

The lengthy description of the life of privation and struggle after falling into debt adds a specific symmetry to the story structure. This passage is a perfect inversion of the exposition — it is no more make-believe but reality, instead of comfort and luxury there is hard work and necessity. This contrast is illuminative of the general human condition voiced in the story:

> How would it have been if she had not lost that necklace? Who knows? Who knows? How singular is life, and how full of changes! How small a thing will ruin or save one! (Maupassant 1963:306).

The *dénouement* proper — after the point of reversal — provides the complete, intended comment (by implication) on the total meaning of the story. Elements from earlier parts are brought back to focus in the reader's mind. Matilda — finally relieved of the burden of the debt, proudly approaches Mme Forestier — she is no longer the same woman who in the first part would have never admitted the loss, whose "earlier" pride forced her to conceal the substitution. Having paid her debt, she is resolved to reveal the truth. The question remains — was all that effort really in vain? did Matilda not gain something really precious?

Henry James, in his essay on Maupassant, enumerated pessimism and cynicism as typical features of his short stories:

> The author fixes a hard eye on some small spot of human life, usually some ugly, dreary, shabby sordid one, takes up the particle and squeezes it either till it grimaces or till it bleeds. Sometimes the grimace is very droll, sometimes the wound is very horrible; but in either case the whole thing is real, observed, noted and represented, not an invention or a castle in the air. M. de Maupassant sees human life as a terribly ugly business relieved by

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[5] Henry James gave a classification of Maupassant's short stories in his essay on the author. *The Necklace*, according to him, would belong to those dealing with the "*petit employé*" and small shop-keeper, usually in Paris, and the life of this class disgusts Matilda so much. James said of the French novelist: "M. de Maupassant evidently knows a great deal about the army of clerks who work under government, but it is a terrible tale that he has to tell of them and of the «*petit bourgeois*» in general" (James 1965b: 102).

the comical, but even the comedy is for the most part the comedy of misery, of avidity, of ignorance, helplessness and grossness. When his laugh is not for those things it is for the little *saletés* [...] of luxurious life which are intended to be prettier but which can scarcely be said to brighten the picture (James 1965b: 99–100).

This observation perfectly concludes what *The Necklace* stacks up to — a very pessimistic image of life falsely brightened by those who are generally believed and expected to do so.

Henry James (1965b: 94) called Maupassant's manner of story-telling "epic" concluding that:

> M. de Maupassant has simply skipped the whole reflective part of his men and women — that reflective part which governs conduct and produces character. He may say that he does not see it, does not know it; to which the answer is "So much the better for you if you wish to describe life without it. The strings you pull are by so much the less numerous, and you can therefore pull those that remain with greater promptitude, consequently with greater firmness, with a greater air of knowledge" (James 1965b: 110).

Arthur Prime from *Paste* whose figure remains in the shadow for the better part of the story and who finally turns out to be the focal person will serve to illustrate James's presentation of human behaviour. His motivation is skilfully sketched at the very beginning, Charlotte — who is "sensitive and shrewd" (James 1963: 317), and whose hesitations will be traced step by step — observes unexpected coldness about him, absolute lack of visible pain or sorrow for the deceased stepmother. Already in the first scene the reader is presented a miniature pattern which will be developed at length later. Arthur's hypocrisy is presented by means of his dashing statements — his meanness not allowing him to present Charlotte with the tin box in which the jewels were found, and then, on the contrary, his faked generosity openly admitting that "If they're [the jewels] worth anything at all — why you're only the more welcome to them" (James 1963: 320). There is no telling whether Charlotte had kept that passing remark of his in mind, had it been so, there should not have been any hesitations as to her keeping the pearls, and the moral of the story would be that the souvenir of a licentious love affair served well a virtuous governess. This, obviously, was not the writer's intention. His aim was to teach Charlotte a lesson about human nature. Arthur Prime's hypocrisy is multiple and the story is built up in such a way as to reveal it. His belief in his mother's respectability is shaken which he would have never, in his righteousness, admitted, so he, everso "moral" and "truthful", decides to conceal it. However, concealing the truth does not hinder him from cheating and robbing Charlotte of her property (to recall his initial remark), and from profiting from the sale of the necklace. One may only wonder which, according to generally accepted moral standards, was more horrid — acquiring the jewels by the actress or the way her honour was saved by Arthur.

Comparing Maupassant and the English writers, Henry James said:

> [Maupassant] opens the window wide to his perception of everything mean, narrow and sordid. The subject is ever the struggle for existence in hard conditions. [...] [the English writers] pity life more and hate it less (James 1965: 102–103).

His remark is to a great extent true of the short story of W. S. Maugham. The overall theme of *A String of Beads* does not depart far from the other two stories but it is expressed with a lesser scorn, almost benignly, and certainly the reading of the story is the least veiled. The manner of its presentation verges on the anecdote. The story proper is greatly dispersed in the subsidiary materials and thus the effect of parody is more perceptible.

In *The Necklace* the values dreamt of by Matilda and represented by Mme Forestier are criticized, in *Paste* — a negative judgement is passed on the behaviour of Arthur Prime and in *A String of Beads* — on the manner of thinking of the class of people represented at the dinner party. Miss Robinson is only instrumental and her change (of profession and status) is significant insomuch as it opposes the common view on respectability and morality. Had the story ended the way Laura suggested — pathetically, sweet and lovely (Maugham 1955, 1:455) — Miss Robinson would, in a sense, have followed the paths of Mme Loisel and Charlotte — those of constant hard work and modesty (not to say poverty). Instead, Miss Robinson's behaviour is challenging and surprising, a very good riposte to all those who had so groundlessly shown suspicion towards her honesty.

These brief presentations of themes and methods helpful in their better comprehension are by no means exhaustive. Still, they seem to be sufficient to point out the major element linking all three narratives. However distinct the dramatic situations in each, all three lead to the demonstration and explanation of the same symbol — that of false jewels. In all the stories, the jewels stand for the misconception of true and false values: Mme Loisel blindly believing in the splendours of the privileged and life teaching her the true values coming from the most unexpected and despised direction; Arthur Prime feigning respectability, defending the reputation of his kindred, nevertheless, in the end revealing his true nature; and, finally, the benevolent wink in *A String of Beads* where morality is left an open subject for discussion.

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EWA GROSSMAN

ANOTHER TRIP INTO GREENELAND — SOME REFLECTIONS ON GRAHAM GREENE'S NOVEL *MONSIGNOR QUIXOTE*

> We each contain several characters — I don't fight them, I accept them.
>
> (Allain 1983: 17–18)

The Man Within, Graham Greene's first published novel appeared in June 1929, when its author was in his twenties. Graham Greene is now in his late seventies and he still manages not only to please his readers, but also to surprise them, as his latest books show. In these more than fifty years he has written twenty four longer fictional pieces he initially divided into novels and entertainments (the division to be later abandoned by him with the publication of *Travels with my Aunt* in 1969), three collections of short stories, three travel books, four collections of essays, two biographies, two autobiographies, five plays, five books for children and the conversations with a journalist. Few writers can be proud of such a literary output.

In consequence, as Bernard Bergonzi has observed, it is hardly possible, if at all, to place Greene and his works into any definite classifications or categories. He refuses to fit into them. One can trace, however, "several different literary careers" the writer has pursued. As Bergonzi (1982: 1037) has seen it Greene

> began in the thirties as a writer of quasi-thrillers and entertainments, variations on the theme of the hunted man, that were realistic in presentation and elaborately metaphorical in language. With *The Power and the Glory* in 1940, Greene became celebrated as a "Catholic novelist", exploring spiritual paradoxes that went against the grain of a secular, humanistic age (though he denied that he was a "Catholic novelist", regarding himself simply as a Catholic who wrote novels). The fame and notoriety of *The Heart of the Matter* reinforced this reputation. But in the mid-fifties the emphasis switched from religion to politics and ideology, and Greene wrote a succession of novels set in the Third World, reflecting war and revolution, oppression and insurrectionary violence.

Only the eighties witnessed the publication of Greene's two novels and two other pieces: *Doctor Fischer of Geneva or the Bomb Party* (1980) — "a weird, almost surrealist fantasy" (Bergonzi 1982: 1037), and *Monsignor Quixote* — his latest novel published in Autumn 1982; *Ways of Escape* (1980),

which Greene himself called in fact "not an autobiography but a selection of news stories which I wrote in Malaya, Kenya" (Allain 1983: 16), and which to a great extent brought together the material Greene published as the introductions to the Collected Edition of his works: *J'Accuse*, which Bergonzi (1982: 1037) calls "an oddity, not easy to categorize or assess" [1].

The very last piece to have appeared, quite surprising to those who remember how "shadowy" Greene has always tried to remain, is a collection of conversations with the writer, *The Other Man: Conversations with Graham Greene* by Marie-Françoise Allain (published in Spring 1983), a French journalist, the daughter of Greene's long dead friend Yves Allain, the French Resistance leader and spy during the last World War, to whom he dedicates the book, and which partly explains why he has agreed to such an undertaking.

"Every creative writer worth our consideration, every writer who can be called [...] a poet, is a victim: a man given over to an obsession" wrote Greene (1951: 79) in an essay on Walter de la Mare. The statement is first of all very much descriptive of Greene's own writings. Critics have written hundreds of pages considering him "almost exclusively in terms of his few recurring obsessions: his vision of evil, the concept, borrowed from Péguy, of the sinner at the heart of Christianity, the theme of pursuit, and so on" (Lodge 1961: 468). Lars Hartveit (1977: 95) writes that "Greene's overwhelming obsession is his deep awareness of the existence of man in a world of sin and despair". Hence his novels display the family likeness in sharing their concern with evil, corruption, cruelty presented against the seedy background, so that the world where Greenean heroes live and act is often referred to as Greeneland.

Greene is well aware of such a reception of his works and does not seem to be anxious to accept it. He told Marie-Françoise Allain (p.22):

> Critics have remarked [...] that I am a one-book man. They're right, up to a point, though I would say I was a two- or three-book man, for I have several times managed to alter the keynote, to disrupt the pattern. I am thinking of *Travels with my Aunt*, where I took a rest from myself — as I also did in *Doctor Fischer of Geneva or the Bomb Party*, and perhaps, on reflection, in one or two other cases.

Greene could not have mentioned *Monsignor Quixote* here. The novel, though published earlier (Autumn 1982) than *The Other Man* (Spring 1983), was written later, as the interrogation of Greene by a French journalist has continued for some years, and Greene, mentioning *Doctor Fischer of Geneva*, calls it his last novel (Allain 1983: 41). But undoubtedly, had it been written earlier, he would have included it among those works of his that spoil "the

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[1] This short piece of 69 pages might be termed an essay, followed by 6 short appendices, on "the Dark Side of Nice" — as the subtitle explains; fragments in Polish translation were published in *Przekrój*, in Autumn 1982.

figure in the carpet" — to use Jamesian words. The novelty and freshness of *Travels with my Aunt* consisted, among others, in its strong humorous vein Greene has shown in it, as he has done earlier in some of his plays. In *Doctor Fischer of Geneva* we enter a world of fantasy as if in a fairyland, with the main heroine Anna-Louisa — as the princess rescued from the "castle" of her father, Dr Fischer, by a man Alfred Jones, to live in idyllic happiness with her "prince" until their bliss is cut short by a fatal accident. This inclination towards fantasy is nothing new with Greene. He confessed to Marie-Françoise Allain (1983: 41):

> I started writing — at fourteen or even earlier — very young, anyway. I produced bad fantasies, fables of a sort. This propensity towards the fantastic, towards fantasy has remained a subdued undercurrent in my work. You'll find it in *Under the Garden*, in the short stories entitled *A Sense of Reality*, and of course in my last novel, *Doctor Fischer of Geneva*.

Bergonzi (1982: 1037) sees this change in Greene's writings from "realistic narrative and plausible characterization to modes of fable and self-aware, self-reflective fiction" as a

> part of reaction against traditional literary realism [...] pursued by many of the ablest writers in Britain and America. There is also a well established tendency for novelists or dramatists who are known for the realistic depiction of men and manners to turn, towards the end of their careers, towards romance or fable or self-reflectiveness.

This undoubtedly is the track Greene has taken up again in *Monsignor Quixote*. Bergonzi (1982: 1037) calls the novel

> Greene's conscious tribute to Catholic Quixotry, a book that is carefully modelled on Cervantes' great original, reproducing not only some of the adventures (of the archetypal couple), but the style and even the chapter headings. To this extent it is an essay in what modern French critics call *intertextualité*, where one literary text relates closely to another.

It is the very title that suggests Greene's indebtedness to the Spanish classic by Miguel Cervantes Saavedra, though it is not the first time that Greene chose Spain as the setting for his novel. He had already written two books set in Spain — *Rumour at Nightfall* (1931), a novel withdrawn from the list of his books, in which the action took place during the Carlist War, and *The Confidential Agent* (1939), drawing on incidents from the Spanish Civil War. This time the novel is set in Spain of the second half of our century (we are allowed to guess this due to the allusions to some events and political personages).

Greene in his long literary career has been influenced by a number of outstanding literary personages — to mention only James, Conrad, Auden, Eliot, Mauriac — whose work has had lasting effect on his choice of themes to deal with and techniques to present them. This time, as *Monsignor Quixote* shows, Greene's mind and imagination have been stirred by Cervantes and also by Miguel De Unamuno, a Spanish scholar, philosopher and

writer, whose detailed analysis and profound commentaries on the master-
piece Greene has read as a young man were going to be one of those books
with a "long-term hidden effect on Greene" (Bergonzi 1982: 1037). In *Ways of
Escape* Greene pays tribute to Unamuno, whose memory is also evoked in
the novel, admitting that he was the man who, to a great extent, influenced
his religious thinking. In his article *On the Road with Graham Greene's
Monsignor Quixote*, Leopold Durán, the Spanish priest to whom, among
others, Greene has dedicated his latest novel, recalls how he has accom-
panied Greene on journeys through Spain, and how they went to see the
tomb of Unamuno in the Salamanca cemetery. They both were shocked to
discover that such a distinguished man of letters was officially so little
appreciated in his own country. In his novel Greene has his couple, Mon-
signor Quixote and his companion and later friend Sancho, having visited
Franco's enormous tomb excavated in the rocks, go to the cemetery to find
Unamuno's tomb

> rather different from the Generalissimo's. It was a rough road out to the cemetery on the
> extreme edge of the city – not a smooth road for a hearse to travel. The body [...] would
> have had a good shaking up before it reached the quiet ground, but as he [i.e., Monsignor
> Quixote] soon discovered there had been no quiet ground for a new body – the earth was
> fully occupied by the proud tombs of generations before. At the gates they were given a
> number, as in the cloakroom of a museum or a reastaurant, and they walked down the long
> white wall in which boxes had been inserted half a dozen deep till they reached number 340
> (p. 98),

as did Greene and Father Leopoldo. This supports Father Leopoldo's
opinion that the very incident was "the initial spark that set Greene's
powerful mind in motion for another novel" (p. 232).

In the novel we are told that the two main characters are descendants of
Cervantes' archetypal couple and throughout the two parts of the novel they
travel in Monsignor Quixote's old Seat car 600 – Rocinante – and have a
variety of adventures reminding one of those of their literary ancestors,
which provide the action of the book. Father Quixote is a parish priest of El
Toboso, where for more than thirty years he has served with humility his
people. He is a good-hearted, simple, humble man, with insights of great
wisdom, looked after in his every-day life by Teresa the housekeeper; the
man who in time of doubt and despair seeks comfort in his books of chivalry
– Saint John of the Cross, Saint Teresa, Saint François de Sales (his usual
comforter) and the Gospels. It would never occur to him that he might be
promoted to the rank of monsignor. But so it happens that some time after
the visit of the Italian bishop whom he had helped with the broken car a
letter with good news from Rome reaches the bishop, who, since he has
always thought very low of Father Quixote and considered him but a mad
man, is much disgusted with the Holy Father's decision – quite beyond his
comprehension – the more so, because he has not been consulted in the

matter. The promotion, quite ironically, turns out to start the chain of
disasters Father Quixote has to suffer. It so happens that the Mayor of El
Toboso and a notorious Communist, Señor Enrique Zancas, has been de-
feated in the last election. The two decide to take a holiday. Thus they go
"on this absurd pilgrimage – to what? or where?" (p. 131), a bit here, a bit
there, without any definite plan, just following the route, during which quite
unexpectedly to them and much to Father Quixote's surprise, since he
believes they have done nothing wrong, they are followed by the Guardia
and, in consequence of Father Quixote's supposed madness which can be the
only excuse for his scandalous behaviour, they are made return home. Yet
they desire to set on route again.

> I don't want our travel to end. Not before death, Sancho. My ancestor died in his bed.
> Perhaps he would have lived longer if he had stayed on the road. I'm not ready for death
> yet, Sancho (p. 182) –

confessed Father Quixote as if instinctively feeling what was to await him in
the future. So they run away from home to follow the old route again,
consider the possibility of crossing the border (a familiar Greene motif),
visit Señor Diego's famous vineyard before they miss by seconds the Oscra
monastery of the Trappists – that garden of peace and calm where
Monsignor Quixote hoped to stay for good – when Father Quixote is shot
by one of the Guardia. The reflections of the Mayor, on his road to
Portugal, close the novel. He thinks

> Why is it that the hate of man – even of a man like Franco – dies with his death and
> yet love, the love which he had begun to feel for Father Quixote, seemed now to live and
> grow in spite of the final separation and the final silence (p. 221),

and, one might add, in spite of their clashing ideologies which at the
beginning seemed to make their journey together a sheer impossibility. At
the beginning of the novel and of their journey Father Quixote says to his
companion: "I doubt very much whether we are the right companions, you
and I. A big gulf separates us, Sancho" (p. 33), and a bit earlier the priest
voices his doubts: "We disagree too profoundly to dispute, Sancho" (p. 28).
Yet they do dispute throughout the novel, at the beginning each defending
his own arguments when deep subjects, such as belief, disbelief and doubt,
faith and doctrine, moral theology, natural law, historical and institutional
aspects of Church and Communism enter their conversation. And it is from
these disputes, these "thought-provoking matters" presented with "admirable
simplicity both in word and in gesture or comparison" (Durán 1983: 236)
that the reader derives much pleasure and the growing interest in the novel;
though, as pretty often with Greene, the reader's interest once aroused is
maintained when suspense is created with the introduction of the pursuit
element into the plot. On the whole, however, the picaresque adventures of
the two travellers are only important as they form the framework for the

ideas and provide the stimulus for the discussion of the couple. Theirs is not the journey to see the countryside, places of interest. In consequence, there are but a few descriptions of places they visit — Franco's tomb is described only, it seems. to point out, by contrast. the shabbiness of Unamuno's "box in the wall", Señor Diego's vineyard and the Osera monastery — to contrast the style of life of their inhabitants and their human goals with those of the Mexicans whose celebrating the feast Father Quixote and Sancho witness. All those are inserted into the narrative for they contribute to the total meaning of the story, are organically linked with it.

At the beginning of their journey and their disputes, Father Quixote and Sancho are open fighters for Communism and Catholicism respectively, and each, pointing out the inadequate achievements on the side his opponent, cherishes hopes to convert the rival to his own ideology. When Father Quixote confides to the Mayor that he is being driven away by the bishop, the other replies:

— I could have warned you. This comes of putting your trust in the Church.
— It is not a question of the Church but of a bishop. I have never cared for the bishop, may God forgive me. But you, that is another matter. I am deeply sorry for you, my dear friend. You have been let down by your party, Sancho.
[...]
— It is not a question of my party. Three men alone have done this to me [...]. There are traitors in every party. In your party too, Father Quixote. There was Judas...
— And in yours there was Stalin.
— Don't bring up that old stale history now.
— The history of Judas is even older.
— Alexander VI...
— Trotsky. Though I suppose you may be allowed now to have a difference of opinion about Trotsky! (p. 27)

Another time the Mayor says "What puzzles me, friend, is how you can believe in so many incompatible ideas" (p. 46). Going on their journey they take with them their books, Father Quixote his books of chivalry, the Mayor — Marx and Lenin, to help them to defend their standpoints and which they finally exchange so that they might get to know and understand each other better. They soon come to realize that though ideological opponents, yet there is much they share. At first the Mayor was drawn to Father Quixote because he thought the priest was his opposite.

A man gets tired of himself, of that face he sees every day when he shaves, and all my friends were in just the same mould as myself. I would go to Party meetings in Ciudad Real when it became safe after Franco was gone, and we called ourselves "comrade" and we were a little afraid of each other because we knew each other as well as each one knew himself. We quoted Marx and Lenin to one another like passwords to prove we could be trusted, and we never spoke of the doubts which came to us on sleepless nights. I was drawn to you because I thought you were a man without doubts. I was drawn to you, I suppose, in a way by envy (p. 179).

Gradually he learns how wrong he was. That good-hearted, simple, sentimental and very often naive priest is tormented with doubts about his own belief: "How is it that when I speak of belief, I become aware of a shadow, the shadow of disbelief haunting my belief" (p. 171). Yet he realizes that there is a difference between faith and belief. Faith is above belief, which is founded on reason. Thus, while a man cannot always believe, it is enough for him to keep his faith, which, though irrational, is the sound and sufficient basis, whereas the mere understanding does not provide it. The Mayor listening to Father Quixote's explanation about the Trinity concludes: "I begin to understand what you mean by the Trinity. Not to believe in it, mind you. That'll never do" (p. 47). It is undoubtedly Father Quixote who has such faith. He persuades the Mayor: "You think my God is an illusion like the windmills. But he exists, I tell you. I don't just believe in Him. I touch Him", to which Sancho, now that they have come to know each other better, can answer: "I respect your belief as you respect mine" (p. 139).

This statement of Sancho seems to mark the further step in their relationship — having recognized themselves as doubters, they come to respect a belief each of them manages to retain. Time and again since then Father Quixote calls Sancho a good man. All this reminds one the ideological exchanges the whisky priest and the lieutenant — his executioner — carry in *The Power and the Glory*. It is clear that it is Greene's conscious intention to recall the previous masterpiece as twice in the novel Monsignor Quixote mentions his spiritual predecessor — he says he has no relatives "except a second cousin in Mexico" (p. 159), and earlier in the novel, drinking the wine with the Mayor, he says: "I fear if I'm not careful I shall become what I've heard called a whisky priest" (p. 79). But obviously it is not predominantly his fondness for alcohol he shares with the hero of *The Power and the Glory*. Both are very moving characters, obsessed as they are by a strong sense of their own inadequacy in administering their flock. Monsignor Quixote, like the other, is haunted by a sense of guilt that, because of his ignorance, his intellectual limitations, his lack of understanding and of words, he cannot properly explain doubts to those who come to him for comfort, he is not able to see how deep their depravity is. He only knows that a rule has been broken. The anguish becomes especially acute when Father Herrera, with a doctorate in Moral Theology from Salamanca, comes to El Toboso to replace Monsignor Quixote during his holiday. Conversing with the young priest Father Quixote tells him:

— I am afraid I haven't read him [i.e., Jone] for many years. Moral Theology, as you can imagine, doesn't play a great part in parish work.
— I would have thought it essential. In the confessional.
— When the baker comes to me — or the garagist — it's not very often — their problems are usually very simple ones. Well, I trust to my instinct. I have no time to look their problems up in Jone.

— Instinct must have a sound basis, monsignor — I'm sorry — father [...].
Father Quixote thought he had never before seen so clean a collar or indeed so clean a man. That comes from living so long in El Toboso, he told himself, I am a rough countryman. I live very, very far away from Salamanca (p. 37).

Thus, ironically enough, Father Quixote could never communicate with Father Herrera on anything which touched the religion they were supposed to share.

The extent of Father Quixote's ignorance in "the matters of the world " is fully displayed when the couple travel. The priest does not recognize in a hotel they stay a house of ill fame, chooses the pornographic film *A Maiden's Prayer* being attracted by the innocence of its title which he does not understand; only later, when told it was about human love, he feels guilty because he was not tempted. He is worried he is not human enough, which, he thinks, questions his love for his God as well. He is utterly naive in the help he gives to the fugitive pursued by the Guardia and he is moving in his eagerness to pray for any soul, whether that of Stalin or Hitler, as he believes they all need a prayer. In his life he follows the rule of the primacy of love in human relationships, all his good deeds spring out of the sheer goodness of his heart.

In his innocence, ignorance and goodness he reminds one the 18th century characters of the Age of Feeling — Parson Adams, Tom Jones, and, to some extent, Yorick. He had to embark on a journey with Sancho to gain some experience under his tutelage. "You must know the world if you are to convert the world" (p. 118), the Mayor wisely advises him. Till then the priest had always thought that he was favoured because he had never been troubled with human desires, sexual drives. The Mayor considered him a lucky man. "Am I?, he questioned himself. Or am I the most unfortunate?" (p. 122). The reflection is a symptom of the change that has come over him. "El Toboso seems a hundred years away. I don't feel myself at all, Sancho" (p. 140). This awareness adds only to his too strong anguish, he is never able to free himself from. It is many times in the novel that Monsignor Quixote calls himself an unworthy priest. To the man addressing him a bishop he says, "I'm not a bishop, only a monsignor, and God forgive me for that" (p. 132). Only once in the whole novel does he tell the stranger his name with its full title. Before his death a letter from the bishop reaches Father Quixote announcing Suspension a Divinis to him.

It means, he explains to Sancho, I mustn't say the Mass — not in public, not even in private. But in the privacy of my room I shall say it, for I am innocent. I must hear no confessions either — except in an extreme emergency. I remain a priest, but a priest only to myself. A useless priest forbidden to serve others (p. 181).

He does say the words of the old Latin Mass before he dies, even if he is in a state of delirium, only playing out his dream. In it the Mayor receives the non-existent host from Father Quixote's fingers, which is highly symbolic of the reconciliation of the two different worlds they inhabit, and which, if one remembers the very first in the chain of dreams Father Quixote was troubled by, is as if the fulfilment of the priest's hope and desire to reach a deepening friendship and a profounder understanding between the Mayor and himself. In this context, perhaps the whole novel may be seen as symbolic of the present endeavours of the Church (i.e., the Church dialogue) after the Second Vatican Council.

Father Durán (1983: 241) considers the end of the novel — "moving, unexpected, extraordinary" — to be "the best end of a novel that Graham Greene has ever penned. The last scene provides the key to the rest". This final "madness? delirium? dreaming?" of Father Quixote suggests how heavily Greene relies on dreams which he regards a part of oneself. Thus, as in his other novels, dreams (mainly those of the priest, as the Mayor dreams but once about an event which soon after comes true) play a significant role in this book, symbolically explaining the character and his personality, adding insight into the character's psyche.

In *The Other Man* (Allain 1983: 143) Greene complains about

the general refusal [of critics] to grasp the importance of fantasy in my books. No one's ever questioned me about it or really commented on it. When *A Sense of Reality* came out, the title, which was meant to be ironical, was taken at face value. It seemed to me rather amusing to apply the word "reality" to a book which was so remote from it. I served up quite a new dish — but nobody noticed. The intrusion of dreams [...] into my other books has been overlooked in the same way [2].

It is indeed hardly possible to overlook the importance of dreams and fantasy in Greene's latest novel. From the very beginning Greene and his characters seem to be concerned with the idea of fiction and its relation to fact. The hero, Monsignor Quixote, many times wonders how he can be a descendant of a fictional character Don Quixote, to which the Italian bishop replies: "Perhaps we are all fictions, father, in the mind of God" (p. 22). The dialogue is taken up again by Father Leopoldo from the Osera monastery and Professor Pilbeam — a guest there. "Fact and fiction — in the end you can't distinguish between them" (p. 206), but the two do not reach any solution concerning the matter.

To finish the reflections on Greene's latest novel one cannot overlook its comical quality, either. Time and again the heroes, incidents make the reader smile, sometime laugh, and as one remembers, it is not the first time Greene has shown his inclination towards the humorous.

To the reader acquainted with Greene's preceding books certain passages from *Monsignor Quixote* might seem a kind of commentary on some

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[2] Greene, in fact, is not completely right here, as Audrey Nelson Slate in her doctoral dissertation *Technique and Form in the Novels of Graham Greene* (University of Wisconsin, 1960) devoted the fourth chapter of her work — "Childhood and the Dream: Unreal Time" to the discussion of dreams in his books.

issues he has exploited before. The following lines illustrate this: "one can't
be neutral when it comes to choosing between good and evil" (p. 63), or "If
his [i.e., child's] circumstances give him a turn to what you call evil" (p. 88),
or still another: "I always felt that those who fail [...] are nearer to God
than we are" (p. 176). These statements bring to mind the conflict in Fowler,
Querry, refer to the life histories of Raven, Pinkie, or the drama of Scobie.
They in fact illustrate none of the essential issues discussed by Father
Quixote and Sancho, but are uttered by them as if they were the asides. This,
however, would prove that Greene's vision of man's plight in the world of sin
and despair has not changed, and when critics call him a one-book man, it is
not to depreciate the artistic values of his output, but rather to point out the
consistency, homogeneity of his outlook.

The epigraph Greene has preceded his novel with, a couplet taken from
Shakespeare: "There is nothing either good or bad, but thinking makes it so"
— the key to the meaning of the book, shows in Greene a rare artist with
life-long experience that lies behind his latest book.

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EWA CHRZANOWSKA-KARPIŃSKA

THE AESTHETICS OF PARODY IN POSTMODERNIST FICTION:
JOHN BARTH'S *GILES GOAT-BOY*

I

The emergence of the self-analytical novel in the 1960's and 70's seems to
be connected with the increased awareness of the powerful influence of
existing forms of literature. In general, the writers' attitude to fiction-writing
displays a growing concern with the problems of tradition, convention,
literary genres, forms and styles. A crusade against realism with its mimetic,
illusionist techniques is accompanied more often than not by attempts to
flaunt artifice in fiction, to exploit its traditional devices and to re-define
the "capacity" of the novel as a genre. The necessity of coming to terms with
this historical burden, with the problem of excessive knowledge confronted
by writers, compels many of them to comment directly or indirectly on the
aesthetic and philosophical status of their works. Such attitudes, incorpor-
ated and exhibited in the so-called postmodernist novel, are particularly
challenging to critics who are invited to re-adjust their tools in order to deal
accurately with a new literary phenomenon. Thus at the moment we can
observe a proliferation of different theories of "fabulation", "metafiction",
"surfiction", "literature of silence", "exhaustion" or "performance". Most of
them dwell upon the fact that the contemporary novel has found itself at a
critical point and that it faces some curious "end", or "death", or "exhaus-
tion" of its possibilities, and therefore it turns on upon itself, half playfully,
half painfully, so as to explore the paradoxes inherent in its very form.
Characteristically enough, this pessimism does not seem to be shared by the
novelists themselves, since in the present situation they see a promise of new,
fertile areas opening before the novel[1]. Still, no matter what critical labels

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[1] Cf. Barth's opinion on Leslie Fiedler's announcement of the "death" of the novel,
expressed in his interview with Bellamy (p. 7); it also seems symptomatic that the title of his
latest essay, a sequel to *The Literature of Exhaustion*, is *The Literature of Replenishment*.

can be applied to the type of literature produced in the last two decades, it is undoubtedly marked by the self-consciousness resulting from a recognition of the complex interrelationships existing between the past conventions of the genre and its present forms.

Therefore nobody has been surprised by the concurrent revival of interest in parody, pastiche, irony and related modes of expression. For, as John Barth says, "if fiction is going to be self-conscious, it is at least comic about its own self-consciousness" (Bellamy 1974: 11). Parody seems to be the most suitable form for conveying both a comic awareness of traditions and conventions constricting the novel, and a sense of freedom to exorcize their influence by means of pointing out their artificiality. Parody operates on the level of specific inter-textuality, since it can be identified and made intelligible only in relation to another text or texts which it takes as its point of departure. This may explain the prevalence of parody in contemporary fiction which is preoccupied with a self-conscious investigation of its roots. Indeed it has become a strategy "employed in new circumstances, in the face of the way in which forms from the past persist and structurally dominate later writing" (Burden 1979: 136). In the critical writing of today its meaning has been intensified and carried beyond literary allusion and playful imitation; parody has been recognized as a serious mode of historical reflection, whereby "form is created to interrogate itself against significant precedents" (Burden 1979: 136).

The intention of the present article is to examine certain aspects of parody in the postmodernist aesthetics of fiction, exemplified by John Barth's *Giles Goat-Boy*. In his previous novel, *The Sot-Weed Factor*, Barth had already created a parody of the 18th-century literary convention, namely that of Fielding. Though it apparently represents a more obvious case of the parodic novel (as the original model can be easily discerned in the pattern reproduced by Barth), the alternative example of *Giles Goat-Boy* has been deliberately chosen to illustrate the use of parody in a larger sense. In fact, both these novels were intended as exercises in mimicry, in Barth's (1977: 79) own words: "novels which imitate the form of the Novel, by an author who imitates the role of Author". What this statement implies is something more than parody understood as a way of conversing with a literary tradition; it suggests that parody may be adopted by the writer as an attitude toward his own creation and thus become self-parody. The effectiveness of parodic devices is visible in both *The Sot-Weed Factor* and *Giles Goat-Boy*. The latter, however, seems to escalate parody beyond a specific literary convention so that it may operate on many levels of a literary discourse and appear in full complexity and versatility.

Before going on to the discussion of parody in Barth's novel it is useful to systematize certain concepts, definitions and notions surrounding the term itself.

II

The history of parody as a literary term is indeed a protean subject. For centuries it has been confused or used interchangeably with related terms such as burlesque, travesty, mock-heroic or pastiche. The difficulties with providing satisfactory definitions are multiplied by popular dictionaries of literary terms, which often tend to define one term by means of another, so it is practically impossible to make clear distinctions. On the whole, within a variety of critical approaches to parody we can notice two general tendencies. One is inclined to treat parody in a narrow sense as a mock-imitation of individual writers or of particular pieces and to reduce it into an independent and definable form, distinct from though often overlapping with burlesque, mock-herois, travesty or spoof[2]. Whereas the other uses parody as an "umbrella-term" for all comic-imitating procedures within which different types and variations can be distinguished[3]. For example Highet in his *Anatomy of Satire* tends to expand the meaning of parody which, according to him, consists in degrading and ridiculing "an existing work of literature which has been created with a serious purpose, or a literary form in which some reputable books and poems have been written", by means of infusing the work, or the form, with "incongruous ideas, or exaggerating its aesthetic devices", or "making the ideas look foolish by putting them into an inappropriate form; or both" (Highet 1972: 13). Thus mock-heroic and burlesque are regarded as two types of literary parody, the first (sometimes called high burlesque) being a presentation of a trivial or repellent theme with "elaboration, grandeur and feigned solemnity", while the second (equivalent to low burlesque) — a debasing treatment of serious subjects by putting them into coarse language (Highet 1972: 105). Highet admits a number of possible forms parody can take, providing parodic examples of epic, romance, drama, didactic poetry, lyric, prose fiction and non-fiction, and even non-literary hoaxes, although he points out that not all distortion or imitation is parody (occasionally he excludes from it grotesque, adaptation or travesty when they are not intended to evoke amusement).

Though most parodies are of individual writers or of particular works, there may be parodies of literary genres, biography, history, religion, myths,

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[2] For example Shipley's *Dictionary of World Literary Terms* represents a tendency to narrow the meaning of parody which is understood as an aspect of the widely conceived burlesque in which "some degree of parody, travesty, or caricature is almost inevitable" (p. 35). On the Polish ground, a similar tendency occurs in Ziomek (1980: 364) who suggests a juxtaposition of parody and travesty as the two types of a more general category called the "comic paraphrase".

[3] Such attitude has been assumed by the authors of the Polish Dictionary of Literary Terms where parody is treated as a form of stylization imitating the original style in order to ridicule it by means of placing it in an incongruous context. Travesty is regarded as one of the variations of parody. A similarly all-inclusive tendency is reflected in the definition of "parody sensu largo" given by Markiewicz (1976: 122–123).

philosophy or science. Thus parody may be aimed not only at literary but also at other, non-literary, targets[4].

Nevertheless, certain tendencies in contemporary literature seem to work against the taxonomic purity of criticism. The increased use of parodic techniques in modern writing and the gradual blurring of conventional distinctions among different parodic genres by the authors themselves may speak in favour of broadening the concept of parody in critical thought.

Parody may be said to resemble irony in the sense of involving the opposition of incongruous orders: "the order of the original and the point of view which undermines the original" (Culler 1975: 152). It is a subversive manner of imitation because it invites a new, more literal reading of the original. However, as Culler observes, irony unlike parody relies more on semantic rather than formal effects[5]. When viewed from the perspective of fiction, the affinity between the two seems reinforced still further, since both of them have proved equally important for the novel to move toward its greater self-consciousness. They seem congenial to the genre which from its very beginnings has tried to solve the fundamental problem of reality versus illusion. The ambiguity of life and art has always been the crucial ontological dilemma implicit in the novel. The ironic awareness of the contradiction of these terms has led many writers to resort to parody as the most suitable means of exposing the essential artificiality of fictional conventions. In some ways, the novel began with parody:

> prose fiction, if intensely written, often parodies itself. If popular, it always asks to be parodied. The modern novel was no sooner born, in tears and vapors, than it was parodied, in humours and leers (Highet 1972: 143).

The strong connection between parody and the novel has been acknowledged by the writers themselves. John Barth openly includes his own parody of Fielding in *The Sot-Weed Factor* in the old tradition of the parodic novel starting from Cervantes using the chivalric romances, Voltaire undermining adventure fiction, Fielding playing with Richardson, and Jane Austen ridiculing the Gothic novel.

In prose fiction parody is a sign of literary indirection and sophistication; it belongs to what might be called "quotation mark techniques" (Erlich 1965: 248). One of its functions is that of literary criticism. Parody requires not only the knowledge of a particular tradition or style but also, equally, the ability to re-evaluate it from a distance: to point out its weaknesses, to reveal

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[4] The opposite view is represented by Ziomek (1980: 380) who maintains that parody is always oriented toward a literary purpose, unlike travesty which can aim at some non-literary targets.

[5] The similarity between parody and irony has been also pointed out by Booth (1975: 71) who says that in parody and irony alike "the surface meaning must be rejected, and another, incongruous and «higher» meaning must be found by reconstruction".

its affectations and to emphasize its faults. And this is, precisely, a part of a critic's task; all the more difficult in case of a parodist, as he must express it in an artistic form.

Perhaps the idea of form-consciousness inherent in parody ("laying bare" the artifice, toying with the medium, destroying the illusion) may account for another function of parody as a catalyst[6]. As J. Tynjanov observes, it may be "a lever of literary change; by poking fun at a specific set of conventions which tend to degenerate into stale *clichés* the artist paves the way for a new, more perceptible set of conventions — a new style" (Erlich 1965: 194). Thus the use of parody reflects the dual nature of literary continuity as a complex interplay of tradition and innovation. Debunking the established authorities, it may prove stimulating for further revisions of the old literary canons. This function of parody may be encountered in contemporary fiction which masterly disposes of "used-up" conventions by embracing them and putting them in a new context. It has been done in a wide variety of ways, as can be seen in the works of the authors as different as John Fowles, Iris Murdoch, Malcolm Bradbury, John Hawkes, John Gardner or Donald Barthelme. It is clear that the parodic strategies employed by these writers have gone a long way to create a new type of fiction, usually referred to as postmodernism. To say that it originates only in parody would be to oversimplify; however, there is no doubt that parody has had considerable impact on the process of re-shaping the literary scene after Modernism.

The ironic awareness that certain literary stances have been exhausted, which is conveyed in the postmodernist parodic novels, shows a degree of self-interpretation by the writer offered within the text. Thus parody helps to create a new type of self-conscious novel in which the author may manifest his freedom from any norms and his control over the intricate patterns he builds into the story. The result is that the postmodernist novel, as Rovit (1963-64: 79) writes, becomes a "Jig-Saw Puzzle", a trap for the reader who tends to forget that in literature everything is an arbitrary verbal construct. This ironic awareness constitutes a dimension of self-parody which calls into question the very activity of creating any literary form. The difference between older kinds of parody and this newer one has been brilliantly explained by Poirier (1968: 339):

> The literature of self-parody continues, then, the critical function that parody has always assumed, but with a difference. While parody has traditionally been anxious to suggest that life or history or reality has made certain literary styles outmoded, the literature of self-parody, quite unsure of the relevance of such standards, makes fun of the effort even to verify them by the act of writing.

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[6] The terminology derived from the Russian Formalist school which contributed a lot to the awakening of interest in parody and encouraged a more systematic examination of its techniques.

III

In an interview for the *Wisconsin Studies in Contemporary Literature*, given before the publication of *Giles Goat-Boy*, Barth (1965:8) clearly identified his attitude to fiction-writing:

> If you are a novelist of a certain type of temperament, then what you really want to do is re-invent the world. God wasn't too bad a novelist, except he was a Realist. Some of the things he did are right nice: the idea that ontogeny recapitulates phylogeny is a master stroke; if you thought that up you'd be proud of yourself. But a certain kind of sensibility can be made very uncomfortable by the recognition of the *arbitrariness* of physical facts and the inability to accept their *finality* [...] And it seems to me that this emotion, which is a kind of metaphysical emotion, goes almost to the heart of what art is, at least some kinds of art, and this impulse to imagine alternatives to the world can become a driving impulse for writers. I confess that it is for me. So that really what you want to do is re-invent philosophy and the rest — make up your own history of the world.

Barth adopts a God-like position of absolute freedom, an ironic distance toward both reality and his own creation which may be viewed in terms of a comic competition with God. He recognizes that the world is built of facts and patterns the finality of which he wants to undermine. The only way for him to do it is not to re-create but invent mock-versions of reality, to multiply fictions. Thus he shifts from a serious imitation to a comic improvisation, from realism to playful fabrication, from mimetic to mythopoeic manner of writing. Such attitude must necessarily lead to the writer's awareness of certain limitations of the designs he can produce and so, instead of emulating, he ends up parodying God.

Parodic intentions stimulated the making of *Giles Goat-Boy*; the author admitted that his novel had to be "a comic Old Testament, a souped-up Bible" (Barth 1965: 8). In fact, it is even more as it combines a narrative with a truly encyclopedic range and thus it becomes a hybrid, a fantastic mosaic of different "cultural texts", moving from mythology, religion, literature (e.g. *Oedipus Rex*, *Divine Comedy*, *Don Quixote*, *Ulysses* or even *The Waste Land*), to history, politics, sociology, psychology, philosophy, etc. Its elaborate structure might resemble allegory if the allegorical frames of the novel were not frequently split by the plurality of vision and the subversive movements of thought, which question the validity of any interpretation.

By means of this intricate pattern Barth seems to explore certain ontological, epistemological and ethical problems encountered by man. Thus the philosophical view seems to dominate, since it poses the questions which are the author's main concern: the problematic nature of reality and its universal laws (ontology); the question of values and absolutes (ethics); and the question of knowledge and "methodology" of cognition (epistemology). And here the important function of parody has to be stressed: by providing a system of cross-references and ironic re-interpretations of existing models it constantly enhances the distance between the fictional plane with all its

philosophical implications and the plane of the author's conscious manipulation of his artifact. Parody reinforces the intended artificiality of the whole design and opens a new perspective from which the analogous questions of ontology, ethics and epistemology can be answered in reference to the novel itself, its mode of existence, its communicative status, the position of its author, etc. Thus Barth's "re-invented philosophy" becomes, at its extreme, a philosophy of his own fiction or, in other words, a philosophy of self-parody.

Barth's method of multiplying parodic references is visible in the treatment of the hero and his quest, the farcical world he calls into being, the presentation of the theme of illusion, the story of the spurious authorship of the novel, and in many "local" parodies of a particular literary work, form or style (e.g. a Greek tragedy, prayer, inaugural academic lecture, hymn, pastoral, etc.). All these elements, apart from their conventional functions in the structure of the novel, are subordinated to the final effect of the mockery of the novel as a form which is impossibly entangled in its own traditions. According to Joseph (1970: 30),

> Barth tries in his most recent work to make a virtue of the necessity of parody and self-parody: to create original works of art out of the certainty that at this late date in the history of Western narrative, it is impossible to write original narratives.

The figure of Giles is a comic replica of the traditional wandering hero of Western literature, a parodic embodiment of Lord Raglan's Hero, while the book itself is called by Barth (1972: 207) "the conscious orchestration of the Ur-Myth" or the monomyth as structured by Joseph Campbell in *The Hero with a Thousand Faces*. Raglan's pattern includes 22 prerequisites for ritual heroes, abstracted from the lives of great mythological and cultural figures, such as Oedipus, Romulus, Heracles, Zeus, biblical Joseph, Moses, King Arthur and others. Barth adopts Raglan's categories in a burlesque manner: he faithfully preserves the overall pattern of the wandering hero's story but places it in an incongruous context of the farcical world conceived in terms of a modern university. He degrades the original myth and denies its serious import by infusing his re-invented version with comic details and providing trivial counterparts to the old archetypes. *Giles Goat-Boy* has been obviously made into an artificial construct, "an amalgamation of the mechanical, animal and strictly human" (Joseph 1970: 33). His very name is a synthesis of these elements and reflects the three stages he passes through in his life: that of Billy Bocksfuss — a goat reared by Max Spielman in New Tammany goatbarns, then George the Goat-Boy — a human student who wants to be a hero and, finally GILES the Grand Tutor — the realization of the "Grand-tutorial Ideal, Laboratory Eugenical Specimen" prepared by WESCAC (the West Campus Automatic Computer; the ostentatious use of acronyms partakes of Barth's comic intentions).

The parodic treatment of the hero is accentuated with numerous refer-

ences to the earlier "Heroes and Grand Tutors" who appear in the novel under different allusive names. Their stories include many playful correspondences to the lives of their mythic counterparts and therefore it is easy to identify most of them (e.g., Jesus as Enos Enoch, Moses as Moishe, Oedipus as Dean Taliped, Aeneas as Anchisides, Ulysses as Laertides, Achilles as Peleides, King Arthur and Excalibur as Dean Arthur and Excelsior, his magic quill, Don Quixote as Quijote, etc.).

Besides, Giles's educational experience as a hero is richly annotated with pseudo-scientific digressions explaining the concept of heroism. Thus Giles learns from Max Spielman that he has met nearly all the prerequisites of herohood:

> the mystery of my parentage, about which it could be presumed only that I was the offspring of someone high in the administration; the irregularity of my birth, which had so seemed a threat to someone that an attempt had been made on my life; the consequent injury to my legs; the circumstances of my rescue, and my being raised by a foster parent in a foster-home, disguised as an animal and bearing a name not my own — these and other details corresponded to what Max had found true of scores of hero-histories (p. 147).

The quotation indicates that Lord Raglan's pattern not only provides the author with a structural framework of the hero's life but is also directly alluded to and commented upon by the characters who have been designed to fit it (as, for example, in Max's ironic statement that "not every dumbhead with a scar is a bonafide hero", p. 147).

Similarly, the author's ironic awareness of the irresistible influence of literary patterns finds its reflection in the rendering of the Quixotic motif. Again, it has a double effect of self-parody and parody proper, involving both Barth himself playing a modern Cervantes and Giles as another victim of literature, whose first encounter with the complex human world takes place via the ancient narratives, the exploits of legendary scholars and their heroic deeds, read out to him by Lady Creamhair. They stimulate his imagination and compel him to make a firm resolution to become a hero, though he has no idea what it means ("A hero doesn't have to know ahead of time what he'll do, does he? All he knows is who he is...", p. 125).

His naive persistence provokes Max to formulate expert remarks and commentaries on the problem of herohood. These speculations and theories, expressed by Max with a comic seriousness, emphasize more openly the intended artificiality of Barth's method to project onto Giles the characteristics of the hero (e.g. the distinction between "heroic professionals" and "professional heroes" or "practical" and "emblematic" heroes; the considerations of "the qualitative tautology of act and agent in the case of Grand Tutorship", p. 252; the idea of predestination in the concept of the hero, p. 250). Especially revealing is the conversation between Max and Dr. Sear in which they discuss the need for a hero as a natural human need reflected in mythology, literature and life: "every college needs a man now and then to

go to the bottom of things and turn us around the corner" (p. 309). It is one more argument supporting Spielman's Law of Cyclology (that "Ontogeny recapitulates cosmogeny"):

> the seasons of the year, the stages of ordinary human life, the growth and decline of individual colleges, the evolution and history of studentdom as a whole, the ultimate fate of the University [...] the rhythm of all these was repeated literally and emblematically in the life of the hero (p. 309).

Similarly to Giles, whose career of the hero symbolically reflects the progress from childhood to adolescence and maturity, the University, which is now at its "mid-adolescence", will have to proceed the same way and it is the Grand Tutor's task to help it to achieve maturity.

Though Giles answers the requirements and finally "recapitulates" the traditional ordeal of the hero, in the last outcome he turns out to be a failure. In fact, he does not accomplish anything beneficial, there is nothing "heroic" in him: from a "successful Grail Knight" he changes into a "wounded Fisher King" (Olderman 1977: 76) whose farewell message to the world is expressed anally (according to Olderman, it may be a parody of the sacred words of the Thunder from Eliot's *Waste Land*). Even the burlesque vision of Giles's end, of his being coasted out of the College on a rusty bicycle and ritually killed by three flashes of lightning on top of Founder's Hill, fulfils the demands of the tradition with a preposterous accuracy. He cannot "render any extraordinary service to studentdom" because he is one of those emblematic heroes "whose careers were merely epical representations of the ordinary dramatical metaphor" (p. 310).

The fact that Giles fits the mythic scheme only formally is, on Barth's part, an ironic commentary on the inability to accept mythology in the modern world. At the same time, in the figure of Giles he seems to parody the yearning for a hero in the contemporary novel which has fallen far from myth. He seems to say that the author who has learned the complete contrivance of myth can no longer use it in a genuine way unless he wants to reproduce patterns which can easily be exposed as meaningless and trivial when given a parodic, i.e., more literal, reading. However, there is an element of self-irony in Barth when he himself consciously adopts such a pattern, as if he tried to show that literature, too — like anything else in his fictional world — is subject to the eternal Law of Cyclology; one novel epitomizes the history of the genre. In Barth's fashion of piling correspondences upon correspondences, the critic may conclude that Giles perfectly illustrates Spielman's Law not only in the individual (goat — man — Grand Tutor) and mythic dimension (separation — initiation — return), but also as a fictional character who encapsulates and exaggerates the features of earlier representatives of the same "heroic species" which have ever existed in literature. The example of Giles displays an important trait in Barth's use of parody: from a fairly conventional device of characterization it is intensified into a more

complex technique of defamiliarization applied to the very process of construction of a fictional character (i.e. it opens a new perception of one of the traditional mechanisms animating fiction). Notably, the former, conventional function of parody as an element of typification can be traced in the presentation of other characters, e.g., Max Spielman as a Jewish stereotype, Eierkopf as a parody of a German scientist, or Peter Greene as a mockery of an American WASP.

The way in which myth and philosophy support each other within one pattern is also visible in the way the former provides a frame for the educational experience of the hero engaged in a search for the Answers. The archetypal story of a saviour to mankind is thus transformed into a mockery of *Bildungsroman*, the story of Giles's learning and disappointment, where the quest theme becomes the theme of illusion. Giles's struggle for Grand Tutorship is enacted through a series of experiences which significantly modify his perception of truth and purpose. Knowing his predicament to be a mysterious "Pass All Fail All", he tries in three turns to complete his seven-point assignment, each time arriving at a different set of the Answers. The tasks he has to perform pose certain practical and theoretical problems the solution of which depends upon Giles's interpretation of the meaning of Passage and Failure. First he thinks in terms of oppositions and insists that differentiation is "the very principle of Passage" (p. 487). Convinced that "opposites should be kept as distinct and far apart as possible" (p. 491), he systematically applies this method in his first attempts at tutoring, which leads to disastrous results. When he realizes his failure he reviews his assignment and shifts to a new idea that "Passed are the Flunked" (p. 604). Now he believes in the unity of contraries and consistently adopts the rule of inversion to correct his Answers. Finally, in the moment of insight he progresses to a transcendence of all categories and becomes aware of their paradoxical relation:

> Passage was Failure, and Failure Passage; yet Passage was Passage, Failure Failure! Equally true, none was the Answer, the two were not different, neither were they the same; and true and false, and same and different — unspeakable! Unnamable! Unimaginable! Surely my mind must crack! (pp. 708–709).

Apparently, the dialectical triad has come to its synthesis during Giles's third entry to the Belly of WESCAC, its crowning point being a triumphant sexual embrace with Anastasia. It becomes the central symbol which, as is characteristic of Barth, combines the trivial and the serious and bears reminiscences at the same time mythic, biblical, Freudian and philosophical (a descent into the womb/the grave/the whale's belly or the Yin/Yang sign).

The analysis of the philosophical aspects of Giles's quest sends the reader back to parody, for none of the resolutions offered within the narrative can be treated seriously as the author himself seems to be toying with tricky

formulations. The novel ends in a note of comic nihilism and becomes in itself one more illustration of the Cyclological Theory according to which man's commitment to pursuit of ultimate answers is futile, as it was evidenced in myths, history and literature and must inevitably be the case in Barth's own novel. The point he wants to make is that reality simply escapes categorizing. Therefore what Giles learns on his way to Grand Tutorship amounts to the realization that his perception of life is always a matter of seeing which gives him only a limited access to truth. It becomes evident when after a fluoroscopic examination of Anastasia's body Giles is still tortured by the mystery of her identity:

> Anastasia... The name seemed strange to me now, and her hair's rich smell. What was it I held, and called Anastasia? A slender bagful of meaty pipes and pouches, grown upon with hairs, soaked through with juices, strung up on jointed sticks, the whole thing pulsing, squirting, bubbling, flexing, combusting, and respiring in my arms; doomed soon enough to decompose into its elements, yet afflicted in the brief meanwhile with mad imaginings, so that, not content to jelly through the night and meld, ingest, divide, it troubled its sleep with dreams of passedness, of love (p. 672).

He is unable to determine a degree of chastity and wantonness in her, much in the same way as he is surprised by "Croakerity" of Eierkopf and "Eierkopfishness" of Croaker. Any vision of reality he tries to create turns out to be relative or distorted due to the incompleteness of man's knowledge. The epistemological lecture on the theme of illusion is supplemented by numerous devices pertaining to imperfect perception, e.g., the frequent use of antagonistic doubles (Giles and Bray; Eierkopf and Croaker; Anastasia and "Lacy"; Rexford and Stoker, etc.), the symbolism of mirrors and different types of lenses, the allusions to blindness and myopia or the opposition of dark and light.

The evasiveness of truth is closely connected with the arbitrary nature of language. In fact, one of the difficulties Giles's assignment sets up for him is of linguistic kind: he has to interpret the cryptic sentences directing him to perform certain tasks. It is not the first time he encounters the problem of meaning because earlier his comic misunderstanding of the "beists" led almost to the rape of Lady Creamhair. Trying to discover the sense of WESCAC's directives Giles learns how confusing verbal formulations may be. As in the parable of Milo who found a way to "raise a heifer" by literally putting it up a tree, Giles has "to attack the terms of the problem" rather than the problem on its own terms (p. 450). Thus grappling with reality becomes actually grappling with words. Moreover, the conventions of language constrict and obscure man's communication with the world around him. The most radical ontological conclusion transpiring from the story of Giles would view everything as an arbitrary verbal construct. And it is possible that the passage quoted by Scholes (1980:99), in which Giles meets a girl reading a book which is most probably the novel called *Giles*

Goat-Boy, enhances this view. Here Barth deliberately destroys the illusion so as to remind the reader that there is no reality outside the linguistic reality of his fiction.

Perhaps the only exception to this nihilistic philosophy can be found in the sphere of practical ethics where Giles seems to have grasped the irrefutable answer. It is revealed to him by the final stroke of the Tower Clock, following his transcendent illumination:

> the strokes mounted — one, two, three, four — each bringing from my pressed eyes the only tears they'd spilled since a fateful late-June morn many terms past, out in the barns. *Sol, la, ti*, each a tone higher than its predecessor, unbinding, releasing me — then *do*: my eyes were opened; I was delivered (p. 709).

The question of Passage and Failure, so far compelling Giles to wrestle with opposite values, is then recognized as irrelevant and it is overcome by a simple imperative to live and act. This ethic of action together with the urge to love find their culmination in Giles's embrace with Anastasia when all distinctions lose their meaning and man and the universe are united in the act of love:

> In the sweet place that contained me there was no East, no West, but an entire, single, seamless campus: Turnstile, Scrapegoat Grate, the Mall, the barns, the awful fires of the Powerhouse, the balmy heights of Founder's Hill — I saw them all; rank jungles of Frumentius, Nikolay's cold fastness, teeming T'ang — all one, and one with me. Here lay within there, tick clipped tock, all serviced nothing; I and My Ladyship, all, were one (p. 731).

However, even this victory finally appears to be momentary and illusory and Giles's movement from idealism to nihilism is completed in the Posttape where, twelve years after, Giles speaks of his "triumph" with an ironic sense of loss.

A parody of the quest motif, with a perverse logic undermining the rationality of any similar undertaking, constitutes but part of the grotesque vision of the world, providing its philosophical justification. Still more immediate reflection of this vision, or its "physical" consequence, is best expressed through the metaphor of university around which the fictional world presented is organized. It becomes Barth's alternative to the real world, a meticulous transcript of the world's religious, philosophical, scientific and political history, including the polarization between East and West Campus both haunted by the memories of Campus Riots and also now engaged in the Boundary Dispute. From this background emerge multiple referents to various historical personages and events, ancient and contemporary, making up a micro-synthesis of the human world, a mock-cosmological version of the universe. On the one hand, Barth's translation of "universe" into "university" repeatedly exhibits his predilection for linguistic puns. On the other hand, it introduces synecdoche as a dominating principle of construction of the fictional world, wherein the whole is constantly reduced

to the part, which produces the comic effect of degradation. On a metaphorical level, the university can be seen as "a reflection of the human condition" (Olderman 1977: 86), of man's educational failure in an institutionalized world. Thus a parody of university structure ridicules the idea of mankind's progress toward greater knowledge, discrediting it as one more myth of Western culture. Like other devices serving to reaffirm the tenet of Spielman's Cyclological Theory, it shows Barth's emphasis on the integrity of different thematic and narrative elements.

The most obvious example of parody as an important dimension of artistic self-consciousness in *Giles Goat-Boy* is a local parody entitled *The Tragedy of Taliped Decanus*, a scene-by-scene recasting of *Oedipus Rex* translated into slangy American diction. It is a *tour de force* of iconoclastic humour. Barth's version of the Oedipus story occupies a vast space of about forty pages in the middle of the narrative and provides Giles with the exemplary model of a search for identity which, through the loss of innocence, leads to the fatal discovery of an animal in man. The hero Taliped, keen on preserving the public image of himself as "The Dean who'll go to any length for Answers" (p. 315), investigates the mystery of his origin just to learn the blinding truth that he "murdered Pa and mounted Ma" (p. 325). The moral of Dean's tragedy conveys a warning that a desire for self-knowledge may become man's curse. For all its witticisms and puns which may be enjoyed for their own brilliance this "play within a novel" is by no means ornamental. Though it constitutes a large, self-contained interlude, suspending for a while the action proper, its presence does not disrupt the structure of the novel. On the contrary, its function is crucial for the unity, as the inserted play watched by Giles takes over the basic motifs of his own story and reinforces them on a more overtly artificial plane. The parallels which can be enumerated include the comic treatment of the archetype of a hero, the dramatization of the theme of knowledge, the academic setting appropriate to the aforementioned method of re-structuring the world in terms of university-allegory, and even a parody of the devices of self-conscious literature, for example the following recapitulation of the plot chanted by the chorus of committee members:

> In the *protasis*, or *prologue*,
> The *protagonist* exposed
> To the *deuteragonist* and *choragos*
> *Hamartia* caused by *hubris*,
> While the background was disclosed;
> Then the *chorus* danced and sang the *parodos* (p. 346)

The correspondences between *The Tragedy of Taliped* and *Giles Goat-Boy* are complicated still further when considered in relation to the original *Oedipus Rex* and the linguistic riddle of the Sphinx which, in a sense, formulates a prototype of the idea that ontogeny recapitulates phylogeny (cf.

Tharpe 1974:61). In fact, Taliped's tragedy, apart from being a parody of myth, stands as a central mirror to *Giles Goat-Boy* itself. Thus the intricate pattern created by Barth resembles a system of mirrors: a parody of Sophocles, presented as an independent whole within a novel which in itself parodies the same myth, assumes a reciprocal function in reference to the novel containing it. The effect it produces is that of "parodic reflexiveness" (the term is Hassan's, 1975:85), i.e., the novel turns upon itself and reflects upon its own design.

Barth's philosophy of fiction is best revealed through the elaborate prefatory materials which go as far as to a parody of the very institution of an author, the editorial background of his book and the anticipated critical response to it. The ingeniousness of this trick consists in exposing the fact that the "universal laws and principles" operating in Barth's fictional world and discovered by his characters must hold true also for the author and his work. Thus he challenges the finality of his own invention making even its authorship problematic. In "The Cover-Letter to the Editors and Publisher" the author, using the intials J. B., disavows his rights to the manuscript and explains how he came into its possession. *The Revised New Syllabus* was handed to him by Giles's son called Giles (,) Stoker who declared that the whole narrative was composed by WESCAC from a number of texts the Grand Tutor managed to dictate to the automatic computer. The 1st person narrator is only a device employed by the machine to make Giles's testament more credible. However, some followers of Gilesianism still claimed the document spurious, concocted by "anti-Gilesians". Similarly, the authenticity of the Posttape is called into question by J. B. in "The Postscript to the Posttape" which is, in turn, supplemented with "The Footnote to the Postscript to the Posttape" suggesting that the J. B. of "The Postscript" is not the same J. B. who wrote "The Cover-Letter". The manuscript is thus wrapped in different "voices" refracting the vision of the "real" author. In addition, there is the opening "Publisher's Disclaimer" quoting critical opinions on the novel and showing the controversy aroused by it among Editors A, B, C and D. The reader is also told that the original title *R. N. S.* was changed into a more marketable one of *Giles Goat-Boy* and that several deletions and corrections were made during the editing and earlier, by Giles (,) Stoker and J. B.

Re-inventing the machinery of disclaimers and mysterious documents, familiar from the diction of Defoe, Richardson and Fielding, Barth re-establishes the theme of epistemological nihilism which is here carried to the point of absurd: the author is hiding behind so many masks that he finally comes close to non-existence (which, in truth, presents itself to the reader as "absolutism"). Maybe the figure of Harold Bray, a false Grand Tutor, a man of many identities, omnipresent and omnipotent, could represent the symbolic persona of the author who exercises his control over the invented world

and simply vanishes when the novel ends. On the other hand, the receding frames attached to the novel stress the ambiguous relationship between the author and his artifact and invite the reader to treat it more literally as a verbal construct. For, as Barth (1965:6) once said,

> a different way to come to terms with the discrepancy between art and the Real Thing is to *reaffirm* the artificial element in art [...] and to make the artifice part of your point.

Parodying the author in himself Barth may try to demonstrate his freedom from the norms bearing upon him as a writer to which anyhow he must be committed.

The display of self-consciousness and the general all-inclusiveness of *Giles Goat-Boy* make it also an interesting comment on the genre of the novel. In fact, it becomes a compendium of different fictional modes and forms, combining the elements of epic, allegory, satire, science-fiction, fantasy and fable. Barth's intention to create a literary synthesis of these elements and to go to the roots of all literature is vaguely expressed by means of etymological associations between the *goat*-hero and the ancient tragedy and satire. Quite typically, Barth again uses playful correspondences to fuse the primeval traditions of comedy and tragedy into one integrated vision. That the vision relies on parody is clearly a sign of the author's critical attitude to the available conventions of writing. In a self-ironic gesture he applies the law that "ontogeny recapitulates phylogeny" in his own work which, in consequence, has to become the novel re-invented. The need to face the problem of tradition and innovation is seen to be the predicament of every writer: "Each generation» must write its own «New Syllabus» or re-interpret the Old one, rebel against its teachers, challenge all the rules" (p. 12). The quotation brings to mind the main thesis of Barth's famous essay *The Literature of Exhaustion* (1977) where he places himself in "the tradition of rebelling against Tradition" and argues that the writer who confronts "the used-upness of certain forms or exhaustion of certain possibilities" (p. 70) can reproduce them but with ironic intent so as to accomplish something new. That kind of art, however, requires "expertise and artistry" a real spectacle of which has been given by Barth in *Giles Goat-Boy*. Indeed, by means of basically parodic devices he created the effect which he admires so much in Borges's fiction: he managed to "turn the artist's mode or form into a metaphor for his own concerns" (1977:78).

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