

UDC 801.541.1

Original scientific paper

Accepted for publication on 26 December 1984

A Contrastive Analysis of Prefixation in English and Croatian*

Zeljko Bujas

Faculty of Philosophy, Zagreb

The first principal part of the paper, after introduction, offers an outline of the traditional description of prefixation in English and Croatian. The outline deals with the properties of these prefixes (origin, current status of non-native prefixes, prefix-base relations, orthography, stress, conversion potential, meaning) and their classification (illustrating it through one, semantic, approach from among the nine possible). The properties listed are then used in the second major division of the paper — a contrastive analysis of English and Croatian prefixes. The contrastively relevant distributional categories (overlap; presence in one of the contrasted languages) point to the possibility of interference in just two of the properties listed: origin and phonology. However, an investigation of the mutual translation equivalents of English and Croatian prefixes, through the same distributional categories reveals a significant presence of contrastive patterning (*nad-*: *out-*; *bez-*: *un-*, *-less*, *-free*; *protu-*: *counter-*), some of highly productive (*do-* + Vb : *finish* + Vb-ing, Vb + *some more*, Vb + *until finished*; *na-* + Vb + *se* : Vb + *one's fill*, Vb + *all one wants*, *have enough* + Vb-ing). A brief listing of teaching implications separates this, second, part from the last, and largest, section of the paper, dealing with the lexicographical relevance of the contrastive analysis of prefixation in English and Croatian (read: in bilingual lexicography). A systematic search for English glosses of Croatian entries soon reveals a number of remarkably productive contrastive patterns of great lexicographical applicability. This is particularly relevant to Croatian-English dictionaries with literally thousands of Croatian headwords formed with a very restricted number of highly productive prefixes (*bez-*, *do-*, *iz-*, *na-*, *ne-*, *od-*, *pre-*, *pro-*, *u-*, *za-*). English equivalents of these prefixes, though far from uniform, reveal scores of patterns which, when uniformly applied, significantly expand and improve the quality of English glossing. The actual application of this contrastive lexicographical technique to a recent Croatian-English dictionary (by Z. Bu-

* This paper was submitted in May 1984 as part research within the Yugoslav Serbo-Croatian-English Contrastive Project (Institute of Linguistics, University of Zagreb, and Center for Applied Linguistics, Washington, D. C.):

jas, 1983) is then illustrated with Croatian headwords prefixed by *do-* (with 21 contrastive patterns possible among its English glosses), *na-* (in reflexive verbs; with 64 patterns) and *ne-* (59 patterns). A consistent application of this innovative technique, i. e. a full listing of all such possible patterns, would result in unwieldy Croatian entries with largely repetitive English glosses. To avoid this, special prefixal entries (another significant lexicographical innovation) have been designed. Offering essay-to-consult listings of possible contrastively patterned English glosses, and serving as crossreferencing hubs for hundreds/thousands of "satellite entries", these prefixal entries make bilingual dictionaries considerably more efficient, keeping their size manageable at the same time.

1. Introduction

Owing to their Indo-European origin, English and Croatian share a number of common features. On the other hand, the fact that they belong to different language families — Germanic and Slavic — is inevitably reflected in certain systemic differences (articles, verbal aspect, tense system, inflectional inventory). The different historical development of the two languages — with English uniquely open to a huge influx of the French and Latin lexical elements — must also be kept in mind. All these differences will, naturally, make themselves felt in any contrastive description of the two languages, though with varying intensity in different sectors of grammatical description. This paper will attempt such a description of the sectors of prefixation in English and Croatian.

2. Outline of Prefixation in English and Croatian

2.1. Since the full inventory of prefixes is some 60 in English and over 80 in Croatian, this outline will concentrate on essential information.

The process of prefixation in English is adequately covered by the standard definition of prefixation as a Word-Formation process whereby a base is modified by adding a prefix to it. "Base" itself is then defined as a form to which a rule of Word-Formation is applied, "prefix" as a word-initial formant modifying the meaning of the base. A more elegant definition of the prefix is the one offered by H. Marchand (1969 : 129) who says "prefixes are bound morphemes which are preposed to free morphemes".

The same definition is perfectly valid in Croatian. Still, until quite recently — before the appearance in 1979 of *Priručna gramatika hrvatskog književnog jezika* — all available grammars of Croatian (or, for that matter, of Serbian) categorized prefixation as a compounding procedure, the reason probably being the potential structural independence of Croatian prefixes (prepositions; particle *ne*), as opposed to the clearly dependent suffixes. With prefixation pigeonholed as a compounding device, there was obviously no need in traditional Croatian/Serbian grammatical description for

affixation as a higher category — indeed, the term is never encountered in traditional grammars of Croatian/Serbian.

2.2. Properties of English and Croatian Prefixes

2.2.1. Origin

The great majority of English prefixes (five-sixths) are of non-native origin (Latin, French or Greek). The few Germanic prefixes are: *a-* (as in *awash*), *be-*, *fore-*, *mid-*, *mis-*, *out-*, *over-*, *step-*, (*twi-*), *un-* and *under-*.

One-third of Croatian prefixes are native (Slavic) origin, the rest being made up of borrowed classical-origin prefixes.

2.2.2. Current Status of Non-Native Prefixes

All English prefixes of Latin, French and Greek origin are productive. Some are now productively used only in restricted vocabulary areas (e. g. *con-*, *com-*, in the natural sciences). Others, it may be noted, are at times attached to bases that now have no separate existence (*deceive*, *prepare*, *remember*, etc.).

The status of such particles as *aero-*, *astro-*, *electro-*, *hepato-*, *carcino-*, and many others, is dubious in Marchand's view (1969:132). He calls them "prepositive elements" and leaves most of them out of his analysis on several, it would seem disparate, grounds.

Though, as emphasized above, the share of native prefixes in Croatian is significantly higher than that of English, the former language inevitably uses a list of Latin and Greek origin prefixes as complete as its counterpart in English. Most of these prefixes are quite productive and fairly common in educated and formal Croatian, also in learned and professional vocabulary areas. Nevertheless, there are certain distributional differences:

1) Many of these prefixes are more productive in English since Croatian has, and often uses, Slavic equivalents for them: *anti-* (Croatian *protu-*), *co-* (Croatian *su-*), *demi-* (Croatian *polu-*), *inter-* (Croatian *među-*), to mention just a few.

2) Two of these prefixes (*preter-* and *sur-*) are unknown in Croatian.

3) One of them (*moto-*) has an English equivalent of extremely restricted currency (*moto-cross*), almost completely replaced by a compound component (*motor inn*).

In view of the different historical development of English and Croatian, the very notion of "non-native" reveals an essentially different approach. The level of cultural sensitivity to this label is much higher in Croatian. This goes to the length where all traditional (read: almost all) grammars of that language still entirely fail to register, let alone analyze, these "foreign" prefixes.

2.2.3. Prefix-Base Relation

Examples of certain English prefixes affixed to bases that are no more independent (like the above *de/ceive*, *pre/pare* and *re/member*) are, naturally, paralleled by similar Croatian examples (*pre/par/irati*, *re/zign/irati*). This calls for some discussion of the issue of independence, dependence and interdependence of prefix and base.

English prefixes do not, by definition, function as separate units independent of their bases. The relatively few exceptions (*auto*, *bi*, *electro*, *ex*, *hydro*, *mini*, *mono*, *pro*, *semi*, *sub*, *super*, *ultra*) are rather special cases — all colloquialisms or recent slang terms — resulting from clipping (*bi* < *bisexual*). Other prefixes of marginal independence are *out*, *over*, *under*, *counter* and *fore*, also termed “compound particles”.

Unlike English prefixes, all native Croatian prefixes are prepositions by origin (save for the negative *ne*) and can function as such, that is independent of their bases. The only exceptions are *nuz-*, *pa-*, *pra-*, *pre-*, *pro-*, *raz-* and *su-* which are no longer used in separation from their bases. There are also restrictions in reverse: not all Croatian prepositions can function as prefixes. This applies to four simple prepositions (*k*, *kod*, *kroz*, *prema*) and to all complex prepositions (such as *između*, *posred*, *usprkos* etc.), with *izvan-* as the only exception. However, a number of adverbs doubling as prepositions (*među*, *van*, *više*, *niže*, *mimo*, *preko*, *prije*, *poslije*) can function as prefixes.

2.2.4. Orthography

Both English and Croatian prefixes are written as one with their base. A number of prefixes in (especially British) English is set apart from the base by the use of a hyphen: *anti-*, *co-*, *ex-*, *mini-*, *multi-*, *neo-*, *non-*, *pan-*, *post-*, *pre-*, *pro-*, *proto-*, *pseudo-*, *semi-*, *ultra-* and *vice-*.

Orthographic convention in Croatian, however, provides for no hyphenation. This applies even to prefixal reduplications (*prapradjed*) and cases of two identical consonants together (*superrevizija*). Still, a hyphen might conceivably be used to keep apart the rare homographs of the type *neradnik* : *ne-radnik* (*layabout* : *non-worker*).

Unlike in suffixation (*friendly* — *friendliness*), no spelling change occurs in English prefixes. The alternation *in-/il-*, *im-* *ir-* (*inimitable*, *illogical*, *impenetrable*, *irresponsible*) is a result of (historical) assimilation.

In Croatian, the spelling of the prefix itself is often modified to reflect phonological changes (*beskraj*, *beščastan*, *zdesna*).

2.2.5. Phonology

There are important features central to the phonological system of Croatian while practically absent from the same system in English (and vice versa). One of these, having a special bearing on prefixation, is the as-

similation in voicing and palatality in Croatian: *beskraj* < *bez+kraj*, *otputovati* < *od+putovati*; *zdesna* < *s+desna*; *beščastan* < *bes+častan* < *bez+častan*.

The powerful automatism of this Croatian phonological rule is often erroneously carried over to English by Croatian-speaking learners (/**æ-nig-dəut/, /**vɔtkə/ instead of the correct /ænikdəut/ and /vɔdkə/). However, English prefixal inventory — overwhelmingly ending in vowels — offers the rule little opportunity to strike. But strike it does at a few nonproductive prefixes that offer themselves: *absolute* /**æpsələt/, *abstain* /**əp'steɪn/, *obstruct* /**əp'strʌkt/, etc. Clearly, the Croatian phonetic spellings *apsolutan*, *apštinerati*, *opskuran* and *opstruirati*, closely reflecting Croatian phonology, provide an additional push in the wrong direction.

2.2.6. Stress

English prefixes do not normally carry the full stress. Exceptions: *mint-* and *sur-*. Frequent exceptions: *arch-*, *bi-*, *counter-*, *di-*, *mono-*, *sub-*, *super-*, *tri-*, *ultra-* and *uni-*.

Croatian prepositions and, less regularly, the negative particle *ne* are normally unstressed and proclitically linked to immediately following full-stress words. However, when they function as prefixes they are pronounced as one with their base, and as a consequence find themselves filling the role, as it were, of first syllables in two-syllable and polysyllabic phonetical units. In that capacity they very often attract the base stress, changing in the process its pitch and (less frequently) length: *nèsreća* (< *ne+srěća*), *dòzñati* (< *do+znàti*), *pròkleti* (< *pro+klěti*), etc.

2.2.7. Conversion Potential

English prefixes do not change the word-class of the base. Exceptions are what may be termed the conversion prefixes *be-*, *en-* (*em-*) and *a-*. For instance, *be-* + N = participial adjective (*be-* + *spectacles* = *bespectacled*); *en-* + N = verb (*en-* + *power* = *to empower*); *a-* + verb = predicative adjective (*a-* + *tremble* = *atremble*).

In Croatian, no prefix effects a full word-class change. Examples where prepositions plus nouns or pronouns result in adverbs (*posrijedi*, *doduše* and *međutim*, *uto*) are simple changes in orthographic convention (*do duše* > *doduše*, *u to* > *uto*) whereby an "adverbial" is psychologically, visually, promoted to "adverb" (cf. 2.3.1./i/). However, a number of prefixes used with verbs bring about secondary word-class changes, causing reclassification within the major word-class. So, a prefix can:

- (1) Change an intransitive verb to transitive (*trčati* > *pretrčati*)
- (2) Change an imperfective verb to perfective (*braniti* → *obraniti*). A further breakdown of these secondary categories into subcategories is pos-

sible with (2). Thus, certain prefixes, producing perfective verbs from imperfective, simultaneously do the following:

(a) Change the verb-object relation subcategory in perfective verbs (*si-pati pijesak/pepeo/*put/*glavu* > *posipati pijesak/pepeo/put/glavu* > *posipati put pijeskom*; *posipati glavu pepelom* > **posipati pijesak putem*, **posipati pepeo glavom*).

(b) Change the lexical collocability subcategory of perfective verbs (*pitivodu/vino/*kuću/*imanje* > *zapiti *vodu/*vino/kuću/imanje*).

(c) Impart additional meanings to perfective verbs, conveying: direction, degree, multiplicity, superiority and reversativeness of completed action. The subcategory of "action-completion degree" can itself be subdivided into as many as ten different sub-subcategories (Pavešić & Vince 1971: 405). This, however, is more properly the subject of the next section.

2.2.8. Meaning of Prefix

Both English and Croatian prefixes have a meaning of their own which modifies the meaning of the base (this after all is the principal purpose of prefixation).

Some English prefixes have more than one major meaning, e. g. *un-* and *dis-* (negative and reversative) and *super-* and *sub-* (degree/size and time/order). On the level of a more specific description of the meanings, these prefixes are diversified even more strikingly. Thus, *un-* has as many as five specific meanings: "the opposite of", "not", "to reverse the action", "deprive of" and "release from".

The same is true of Croatian prefixes, but with many of them in a markedly higher degree. This is on account of their use with perfective verbs, characterized by a pronounced differentiation and specialization of the primary meaning of "completion of action". So, for instance, *po-* is used to convey five specialized meanings: (1) *popiti* (fully completed action), (2) *potrčati* (completed beginning of action), (3) *počekati* (action completed in a restricted degree), (4) *popadati* (multiple completed action), (5) *položiti* (direction of completed action).

2.3. Classification of Prefixes

In view of the many prefixal properties, analyzed in this paper and elsewhere, various classifications of prefixes are possible:

(1) by origin (native/non-native)

(2) by prefix-base "compatibility" (use of prefix with bases of various word-classes)

(3) by word-class production potential (use of prefix to produce words of one or more various word-classes).

- (4) by orthographic convention (hyphenated/merged)
- (5) by phonology (stressed/unstressed; subject to/free from phonological change)
- (6) by conversion potential (present/absent/mixed with other functions)
- (7) by meaning (lexical/structural/mixed)
- (8) by productiveness (non-living/living; marginally productive/productive/highly productive; ranking by frequency)
- (9) by alphabetical order (it has clear practical advantages and has been used by several authors, H. Marchand among them).

This paper will present only one of the classifications listed — the semantic one. It is based on two separate approaches, one for English (Quirk et al., 1972: 982—992) and one for Croatian (S. Pavešić & Z. Vince, 1971: 401—406).

2.3.1. Semantic Classification of English and Croatian Prefixes

a) Negative Prefixes

English: *asexual, disobey, inimitable* (illogical, impenetrable, irresponsible),
non-stop, undamaged

Croatian: *amoralan, bezumlje, neistina, nonstop*

b) Reversative Prefixes

English: *defrost, disconnect, untie*

Croatian: *odvezati, raspasati, raspop*

c) Pejorative Prefixes

English: *maladjusted, misinformed, pseudo-Gothic*

Croatian: *maltretirati, pseudolatinski, pačetvorina*

d) Prefixes of Degree and Size

English: *arch-enemy, hyperactive, mini-skirt, outgrow, overeat,*
paramilitary, semicircle (hemisphere, demigod), *subhuman,*
supersensitive, surcharge, ultra-modern, underworked

Croatian: *arcilopov, dopeći, hiperaktivan, izgorjeti, minigolf,*
nagristi, natčovjek, odebeo, paramedicinski, postariji,
podgrijati, polufinale, prebrz, priglup, prosijed,
subatomski, sulud, superrevizija, ultramoderan, uzavreti

e) Prefixes of Attitude

English: *anti-war, auto-suggestion, co-exist, counter-culture, pro-Chinese*

Croatian: *antidržavni, autosugestija, koegzistencija, koegzistirati, kontra-*
spijunaža, nasilan, pogotovu, prokineski, protuustavan, sputnik,
ujedno

Comment. In the Croatian examples *nasilan*, *pogotovu* and *ujedno*, the prefixes *na-*, *po-* and *u-*, properly speaking, have no meaning of attitude of their own. Their bases *gotovo* and *jedno* do not have a clear contemporary meaning of attitude either, whereas *sila* only marginally does (depending on the native speaker's analytical powers). Thus, it is only through association, in the resulting adjectives (*nasilan*) and adverbs (*nasilno*, *pogotovu*, *ujedno*), that the meaning of attitude arises, making *na-*, *po-* and *u-* prefixes of attitude-through-association.

f) Locative Prefixes

English: *intercollegiate*, *pan-Islamic*, *transcontinental*, *subconscious*, *super-structure*

Croatian: *međukat*, *napolju*, *nizbrdo*, *ovratnik*, *odasvud*, *optrčati*, *pomorac*, *podmorje*, *prekomorski*, *pristanak*, *zdesna*, *ulijevo*, *uzglavlje*, *zaleđe*

g) Prefixes of Time and Order

English: *antedeluvian*, *ex-wife*, *forewarn*, *neo-Platonism*, *post-war*, *pre-schol*, *prototype*, *resettle*

Croatian: *antedatirati*, *dosad*, *ekskralj*, *iznova*, *naizmjenice*, *otad*, *pogovor*, *pradomovina*, *predbilježiti*, *prijepodnevn*, *unatrag*

Comment. About the semantic dependence of *iz-*, *na-* and *u-* on their bases, to convey the meaning of time/order, see Comment to section (e).

h) Number Prefixes

English: *bilingual*, *decathlon*, *dichotomy*, *heptameter*, *hexapod*, *monorail*, *multi-purpose*, *octagonal*, *pentagon*, *polyglot*, *quadrilateral*, *quinquecentennial*, *septennial*, *tetrasyllabic*, *tripartite*, *unilateral*

Croatian: *bifokalan*, *četveronoške*, *dekagram*, *desetboj*, *dihotomija*, *dvoglav*, *heptametar*, *heksakord*, *monogamija*, *multimilijunaš*, *oktigon*, *osmosatni*, *Pentateuh*, *petokrak*, *poliglot*, *kvadriplegičar*, *sedmodnevni*, *šestosložan*, *tetrapak*, *tripartitan*, *trorog*

Comment. It is difficult with number prefixes — naturally linked with lexical production in the area of science and learned writing — to stop short of prefixal uses that should be considered restricted to these specialized vocabularies. This paper has probably erred in that direction, including among the prefixes listed above some that must be termed unproductive in ordinary speech (both English and Croatian).

i) *Prefixes of Manner*

English: *awash, astride*

Croatian: *istiha, napamet, odoka, potrbuške*

Comment.

(1) About the semantic dependence of *iz-*, *na-*, *od-*, and *po-* on their bases to convey the meaning of manner, see Comment to section (e).

(2) The near-absence of English counterparts in this Category is explainable by the Croatian suffixes here being originally prepositions (part of prepositional groups), written as one with the noun because of the current orthographic convention (cf. 2.2.7.). *Napamet*, *odoka* and similar adverbs are notorious causes of orthographic errors in Croatian (**na pamet*, **od oka*), and have been subject to changes in convention (*na pamet/ napamet*) with almost each new official orthography of Croatian in the last eighty-odd years.

(3) *Potrbuške* is, of course, an example of combined prefixation and suffixation (*po+trbuh+ke* > *po+trbuš+ke*).

j) *Prefixes of "Becoming like" and "Making like/into"*

English: *becalm, befriend; enfeeble, enslave*

Croatian: *osposobiti (se), ponijemčiti (se), preinačiti, srepiti se, uštapiti se, zaglupiti (se)*

k) *Conversion Prefixes*

English: *bewitch, enslave (empower), awash*

Croatian: *izliječiti, načiniti, obraniti, popiti, pripitomiti, probuditi, razveseliti, sačuvati, učiniti, uskolebati, zgrijati*

Comment.

Since conversion is primarily a lexicogrammatical process, effecting no true semantic changes, it should not properly be used as a category in any semantic classification. The more so, since in all such examples in English (and in a majority of Croatian cases) the prefix does convey some lexical meaning other than the purely functional indication of conversion, and can as such be assigned to some existing semantic class. The uniqueness of the three English listed above, in that they are the only English prefixes capable of effecting word-class change, has probably led some authors (Quirk et al. 1972 : 992) to set apart a category of "conversion prefixes" within an otherwise semantic classification. Marchand, in his extensive semantic classification of affixes (1962 : 516—522), with its 107 headings, has no heading of "conversion".

In Croatian, as already noted (cf. 2.2.7.), prefixes are extensively used for conversion purposes, though the changes that result are always secondary, i.e. the word remains within the same word-class. One of these conversions (imperfective verb > perfective verb) breaks down to five subcategories of meaning additional to the basic meaning of action-completion: direction, degree, multiplicity, superiority and reversativeness. All these subcategories (and the ten divisions of the group "degree") can be, and have been, assigned to one of our semantic categories: of location, degree, manner, etc. However, one of the subdivisions of the "action-completion degree" group — the "fully completed action" (e. g. *popiti, učiniti, napisati*) — is free of any additional meanings in its basic meaning of "completion > perfectiveness". As such, it probably justifies the setting up of a separate semantic category of the Conversion Prefixes.

3. Contrastive Analysis of Prefixation in English and Croatian

3.1. Contrasting Prefix Properties

Viewing contrastively the English and the Croatian prefix systems, we must anticipate theoretically the properties of the two systems to fall into one of the following relational categories:

1. the properties are identical
2. they overlap (i. e. only some of the features are identical)
3. they are present in only one system
4. they are absent from both systems

Categories under (1) and (4) being clearly irrelevant in a contrastive analysis, we must look for English and Croatian features that overlap (2) or are present in only one of the two languages (3). Once established, these features will signal areas of anticipated interference in the process of transfer (learning).

Section 2.2. offers a survey of the seven principal properties of prefixation in English and Croatian. Testing them against the contrastively relevant relational categories listed above, we obtain the following distribution:

Overlapping properties

Origin
Orthography
Prefix-Base Relation
Stress
Conversion Potential
Meaning

Properties absent from one system

Phonological

These properties, however, are too general, containing a number of items that can be categorized as belonging to one of the relational categories in their own right. These individual items, naturally, signalize their (narrower but more telling) areas of interference as will be illustrated by the following four examples, the first three illustrating interference caused by the properties of prefix origin, the fourth showing interference due to phonological prefix properties.

(1) The prefixal properties of origin (etymology) are rightly assigned to the category of Overlapping Properties because both English and Croatian prefixes are of native and neoclassical origins, but the latter predominate in English to a markedly higher degree. Within this category, however, we find items *sur-* and *preter-* which are simply absent from Croatian, and should as such be considered as belonging to relational category 3.

Consequently, these two prefixes must be diagnosed as a source of some difficulty of transfer, in that the preobserved parallelism of English and Croatian neoclassical prefixes suddenly does not apply to them. So, there is difficulty in readily supplying Croatian equivalents for such examples as *surtax* and *preternatural*, while no, or very little, trouble is encountered with *antitax* : *antiporezni*, *protuporezni* or *supernatural* : *nadnaravan*. Of course, similar difficulties of transfer must be expected when the direction of transfer is reversed. Prefixes *sur-* and *preter-* (admittedly not among the most frequent) will very likely be missed even by the fairly advanced learners when they are required to supply English equivalents to, say, *dodatna pristojba* and *nadnaravan*. Their probable translations will be *additional/extra charge* and *supernatural*, correct in themselves but lacking the brevity and idiomaticity of *surcharge* and deficient in the charm of rarity of *preternatural*.

(2) On the other hand, excessive use of non-native prefixes in Croatian can be due to the influence of English where these prefixes heavily predominate, e. g. Croatian *interakcija* (< English *interaction*) at the expense of *uzajamno djelovanje*.

(3) Not generally acceptable, or downright impossible, English prefixal formations may result from regular Croatian usage lacking parallel in English, e. g. **autoparts* (< Croatian *autodijelovi*) or **motocross* (< Croatian *motokros*)

(4) Erroneous English pronunciations result irrepressibly from the Croatian automatic assimilation in voicing and palatality: */'apsəlu:t/* (< Croatian *apsolutan* or */'əp'strʌksʃən/* (< Croatian *opstrukcija*). This also explains the regular replacement of */'kwɛstʃən/* and */dɪ'stʃɑ:dʒ/* by */'kwɛstʃən/* and */dɪ'ʃtʃɑ:dʒ/* — on the analogy of Croatian *beščastan*, *račetveriti*, etc.

It will be observed that only two of the seven prefix properties (Origin and Phonological) have been mentioned here as containing areas of

interference. This has been done because the hypothetical interference traceable to some of these properties is:

- a) of no practical consequence (Prefix-Base Relation)
- b) so minor it can be disregarded (Orthography)
- c) highly unlikely to occur (Stress)
- d) essentially impossible because of incompatibility (Conversion Potential)

The sixth of the prefixal properties from Section 2.2., that of Conversion Potential, also had to be listed as devoid of any areas of interference. The nature of conversion brought about by the English prefix is evidently incompatible with the character of conversion triggered by the Croatian prefixes in examples such as *piti-popiti*, *lomiti-slomiti*, *braniti-obraniti*.

Nevertheless, some clear patterning of prefix counterparts brought out by Croatian-to-English translation reveals very definite contrastive potential here and the same is true of the last of the seven prefixal properties, that of Meaning. This potential, however, is fully disclosed only when Croatian-to-English and English-to-Croatian translation counterparts of prefixes are matched, a task both massive and in terms of methodology substantially different from what has been done so far in this section. It calls for separate discussion which is attempted in the following section.

3.2. *Contrasting Translation Counterparts of Prefixes*

3.2.1. Before matching any translation counterparts is attempted, one must define these terms. By *matching* is meant a systematic examination of possible contrastive patterning of Croatian and English translation pairs. This is best done by testing these pairs against logically (permutationally) possible relational categories similar to those in section 3.1.

The term *formal counterpart* is used for the results of translating an item from source-language into a target-language item on the same level of description (e. g. Croatian *ne-* into English *un-, non-, in-*). *Nonformal counterpart* is used for the cases where translation results in items which are rank-shifted, or of an entirely different makeup (e. g. Croatian *ne-* yielding English groups *absence/lack/want of*). To keep these two terms more clearly apart, *formal correspondent* will be used for the formal counterpart and *translation equivalent* for the nonformal counterpart.

Dealing with translation, we must take into account another major aspect of translation — that of its *direction*. Contrastively speaking, in our case, both English and Croatian can be regarded as source and target languages. Ideally, this bidirectional approach should be the rule in contrastive analysis because nothing else ensures that all aspects of a language's structure have been adequately covered. For practical reasons, however, only one

direction is normally attempted, and I have opted here for the L_s -to- L_t (Croatian-to-English) direction. I have done so because I am a firm believer in the greater teaching and learning efficiency of this approach which harnesses, as it were, the powerful patterning habits of the mother tongue and the irrepressible, contrast process of the learner's mental translation from his native language.

Bearing all this in mind, Croatian-to-English translation counterparts of prefixes can be assigned to one of the following three categories of contrastive patterning:

Category	Croatian → English	
1	+	+
2	+	—
3	+	(+)

The plus sign marks the presence, minus sign the absence, of a prefix. The symbol (+) indicates the presence of some nonformal counterpart (translation equivalent).

3.2.2. First Category

Croatian prefix has a formal correspondent (= prefix) in English:

a) Croatian non-native: English non-native

aseksualan	asexual
hemisfera	hemisphere
hidroterapija	hydrotherapy
nonstop	non-stop
ultramoderan	ultra-modern
prokineski	pro-Chinese
but: hiperprodukcija	over-production

b) Croatian *među-* : English *inter-*

međunarodni	international
međugradski	intercity
međustanični	intercellular
međupćinski	intermunicipal
but: međujelo	entrée (BE)
međubroj	half size

c) Croatian *nad-* (*nat-*) : English *out-*

nadglasati	outvote
nadigrati	outplay
nadlajati	outbark
natplivati	outswim
but: nadjačati	overpower

d) Croatian *ne-* : English *in-, un-, non-*

<i>neadekvatan</i>	<i>inadequate</i>
<i>neaktivan</i>	<i>inactive</i>
<i>neartikuliran</i>	<i>inarticulate</i>
<i>neaktualan</i>	<i>untopical</i>
<i>neangažiran</i>	<i>unengaged</i>
<i>neatraktivan</i>	<i>unattractive</i>

N.B. This patterning is fraught with danger and not much safe advice can be offered the non-native speaker (e. g. *neizbježan* : *unavoidable, inevitable, *non-avoidable, *non-avoidable*).

<i>nebeletristički</i>	<i>nonfiction</i>
<i>neboraćki</i>	<i>noncombatant</i>
<i>neplaćanje</i>	<i>nonpayment</i>

N.B. For *ne-* combined with *-nje* (and *-ost* and their English translation equivalents see Section 5.7.3.

e) Croatian *bez-* (*bes-*) : English *un-*

<i>beskrupulozan</i>	<i>unscrupulous</i>
<i>besprincipijelan</i>	<i>unprincipled</i>
<i>beskompromisan</i>	<i>uncompromising</i>

f) Croatian *pre-* : English *over-*

<i>pregrijati</i>	<i>overheat</i>
<i>prekuhati</i>	<i>overboil, overcook</i>
<i>prepuniti</i>	<i>overfill</i>

g) Croatian *protu-* : English *counter-*

	<i>protudokaz</i>	<i>counterproof</i>
	<i>protunapad</i>	<i>counterattack</i>
	<i>protuprijedlog</i>	<i>counterproposal</i>
but:	<i>protuavionski</i>	<i>antiaircraft</i>
	<i>protuzakoni</i>	<i>illegal, unlawful</i>

h) Croatian *su-* : English *co-*

	<i>subaštinik</i>	<i>coheir</i>
	<i>suigrač</i>	<i>coplayer</i>
but:	<i>sugrađanin</i>	<i>fellow-citizen</i>
	<i>sukrivac</i>	<i>accomplice (?)</i>

3.2.3. Second Category

Croatian prefix has no formal correspondent in English

a) English counterpart does without the prefix present in Croatian

<i>rekonvalescent</i>	<i>convalescent</i>
<i>interpunkcija</i>	<i>punctuation</i>
<i>eksploziv (phon.)</i>	<i>plosive</i>

b) English counterpart is a simple, prefixless word

<i>bezbroj</i>	<i>myriad</i>
<i>bezdan</i>	<i>chasm</i>
<i>bezdušan</i>	<i>callous</i>

3.2.4. Third Category

Croatian prefix has no formal correspondent in English but there is observable patterning of a variety of translation equivalents.

The many possible patterns will be illustrated with three complex examples — one adjectival, the other two verbal.

(1) Adjectival prefix *bez-* (*bes-*)

a) English equivalent is a suffix

<i>besciljan</i>	<i>aimless</i>
<i>beskonfliktan</i>	<i>conflictless</i>
<i>bezakonit</i>	<i>lawless</i>

b) English equivalent is a postnominal adjective

<i>beskamatan</i>	<i>interest-free</i>
<i>beskonfliktan</i>	<i>conflict-free</i>

c) English equivalent is a prenominal adjective/participle

<i>besadržajan</i>	(de)void of/lacking <i>expression</i>
(de)void of/lacking <i>content</i>	<i>bezizražajan</i>

(2) Verbal prefix *na-* and *iz-* (*is-*) with the particle *se* (to express a satisfying degree of action)

<i>naplesati se</i>	<i>to dance one's fill</i>
	<i>to have danced one's fill</i>
	<i>to have (had) enough of dancing</i>
	<i>to get tired of dancing</i>
	(also lexically:)
	<i>to dance one's feet off</i>

(Verbs like *naplakati se*, *naplivati se*, *naspavati se* also: *to have a good cry/swim/sleep*)

N.B. For a contrastive lexicographical treatment of this pattern see 5.6.

(3) With other verbal prefixes the patterning of English nonformal equivalents is often looser, at times verging on the merely suggestive:

Thus Croatian *do-* (in the sense of action-completion) is contrasted by clear English patterning in examples like:

dokovati : finish forging
 forge some more
 forge until finished/done/ready

(likewise with: *dokuhati, docijepati, dosušiti*, etc)

But we also have:

doplatiti *pay an additional sum*
 pay the deficiency
 pay extra

dokvalificirati se *complete additional training*
 earn additional qualification

dosoliti *add salt to*

doliti *add by pouring*
 pour some more
 fill up by pouring

The only common feature of all these English equivalents is the presence of either the adjective *additional* or the verb *add*, and this "lexical patterning" can be of help, suggesting minor patterns of the type *douljiti, došećeriti* : *add oil/sugar to*, or merely providing glimpses of possible lexical paraphrases.

N.B. For a contrastive lexicographical treatment of this prefix see 5.3., 5.4. and 5.5.

4. Teaching Implications of the Contrastive Analysis of Prefixation in English and Croatian

4.1. In the beginning and early intermediate stages of learning English (up to, say, a 2,000-word vocabulary), there may be little need to utilize any observations resulting from the contrastive analysis of prefixation in Croatian and English. Beyond this stage, however, as the learner realizes the deplorable absence of lexical/vocabulary rules in the standard textbooks and courses — and parallel with his budding ability to draw (often wrong) analogies — the following general suggestions may be offered to the teacher of English, or textbook-writer, in the Croatian-speaking areas of Yugoslavia.

4.2. You should expect the first-go learning efforts to be significantly linked with attempts to draw excessive formal analogies, that is to create nonexistent formal correspondents in the target language (English). The second-go efforts, with their groping away from the immediate item-for-item "grammatical" transfer will be largely involved with nonformal equivalents.

4.3. Aware of this, you should first intervene in cases where the learner is liable to misinterpret a frequent and easy-to-observe pattern of formal correspondence as a foolproof rule. Warned of the limited applicability of formal correspondence, the learner should now be made aware of the operation of nonformal equivalents. He should be gradually made more receptive of a regular application of nonformal equivalents for new productive, vocabulary-expanding habits.

4.4. On a more applied level, the obvious suggestions are:

a) Draw up lists of high-frequency Croatian prefixes and of their formal correspondents in English.

b) Compile lists of English nonformal equivalents of Croatian high-frequency prefixes. (For this, use translations, dictionaries, and available concordances.)

c) Utilize these lists (of both types) to establish and describe significant contrastive patterning.

d) Use this knowledge to design exercises specifically aimed at instilling vocabulary-expansion habits and reflexes, based on the established patterns of formal correspondence and, particularly, of nonformal equivalence.

e) Design translation exercises which will activate the learner in observing further instances of productive patterning among the wealth of translation equivalents.

f) Pay special attention to “deceptive cognates” (Ivir 1968).

5. Lexicographical Relevance

(Of the Contrastive Analysis of Prefixation in English and Croatian)

5.1. Contrastive studies of English and Croatian have so far bypassed the area of lexis. Only one contrastive lexicological paper has been produced to date (Ivir, 1968). Contrastive lexicographical analysis of the two languages is still an entirely blank area, except for a passing suggestion (Ž. Bujas 1967: 61, 62 and 1969: 29, 30) or an article section discussing an aspect of it (Ž. Bujas 1980: 210—212). On the other hand, a major lexicographical effort has been launched (Ž. Bujas, *Croatoserbian-English Encyclopedic Dictionary*, vol. 1, of 1983 /henceforth BHE/), incorporating some basically contrastive techniques — a case of significant application occurring without previous theoretical articulation of the issues involved.

5.2. Any dictionary, if we define it as an inventory of alphabetically arranged lexical items, ensures a concentration and resulting ready (graphic, visual) prominence of prefixal items. In bilingual dictionaries, these conveniently concentrated items of the source language (the “left-hand side”) are paired with glosses in the target language the “right-hand side”). An inspection, however cursory, of a page or two of a bilingual dictionary, con-

taining a sequence of entries beginning with the same prefix, will provide an easily surveyable assortment of the accompanying glosses. These glosses (read: possible translations) of the source-language entries will contain a number of identical, or synonymous, single items and item strings, observable even to the casual, untrained eye.

5.2.1. Dictionary size, though clearly a limiting factor in glossing, is not decisive, as the following illustration from a Croatoserbian-English pocket dictionary (Urbany, 1977) shows:

<i>dogegati</i>	<i>come waddling</i>
<i>dohitati</i>	<i>come rushing</i>
<i>dojahati</i>	<i>come riding, arrive on horseback</i>
<i>dojedriti</i>	<i>come sailing, sail up to</i>
<i>dojuriti</i>	<i>come rushing</i>
<i>dolepršati</i>	<i>come fluttering</i>
<i>dolutati</i>	<i>come rambling</i>

Obviously, the contrastively relevant patterning is:

(Croatian)	(English)
<i>do-</i> (+ vb)	<i>come + (vb +) -ing</i>

Even this, very restricted, illustrative list contains two glosses (*arrive on horseback* and *sail up to*) with contrastive potential, though used only once and therefore, formally, outside the gloss patterning offered by the list. A simple test, however, shows that the following is also possible:

- 1) *arrive waddling/rushing/riding/sailing/fluttering/rambling*
- 2) *waddle/rush/ride/sail/flutter/ramble up to*

A full contrastive statement made possible by the lexicographical material analyzed is now:

(Croatian)	(English)
<i>do-</i> (+ vb)	$\left\{ \begin{array}{l} \textit{come + (vb +) -ing} \\ \textit{arrive + (vb +) -ing} \\ \textit{(vb +) up to} \end{array} \right.$

5.2.2. This lack of a systematic approach to the generation of glosses is a general feature of bilingual lexicography. Once produced, clearly suitable — some downright felicitous — glosses will fail to be regularly used for other entries of a similar makeup (beginning, for instance, with the same prefix. It is exactly this one-shot, ad hoc, atomized approach to individual entries that has earned lexicographers the label of linguistic hacks, often attached with justification. A linguist's, especially a contrastive linguist's, primary task in bilingual lexicography is, therefore, a systematic perception and utilization of all monolingual and bilingual patterning of the language material used. Observing and discovering regular patterning aris-

ing in the process of transfer from one language to another is, after all, what contrastive analysis is all about.

5.2.3. However, systematically and diligently as one might mine the text of a bilingual dictionary for such patterning, the yield will ultimately and inevitably be limited by the dictionary's own, largely incidental, contrastive potential. Even, should the bilingual lexicographer be aware of the contrastive potential dormant in his glosses (a tenuous assumption), and should he even make a deliberate effort to realize this potential fully, the result will equally inevitably be stamped by the restrictions arising from the specific quality of the glosses themselves. Produced within the structural, and psychological, framework of dictionary entries, these target-language glosses lack the broad lexical, associational reference and scope of the target-language equivalents generated by the normal, extra-lexicographical, process of translation. They, the glosses, are ultimately and simply less creative than the normal translation equivalents. As a rule, it is only from conventional translation that pairs like the following result:

(Croatian)	(English)
<i>izjecati:</i>	<i>utter through/between sobs*</i>

(* as opposed to the non-noun-dominated and presumably more predictable *sob out* or *utter sobbingly*)

5.2.4. To round off the argument, and for fairness sake, the contrastive potential of bilingual dictionary text can be somewhat enhanced. This can be done by switching source and target languages and using (computer) concordancing technique. The gloss *utter through/between sobs*, if present as a phrase in the entry *sob* (noun) in an English-Croatian dictionary, would have thus been retrievable through a conversion of that bilingual text into a Croatian-English contextual concordance, converting former Croatian glosses to concordance key words. All this, naturally, under the assumption that the putably present *utter through/between sobs* had *izjecati* as its gloss, or one of them.

5.2.5. To be complete and balanced, an analysis of contrastive lexicographical issues must allow for the possibility that the lexicographer is aware of the contrastive-analysis approach, and even has some skill applying it. He could then be expected to use a degree of intuition and, for instance, expand the list in section 5.2.1. by such fairly obvious contrastive patterns as:

vb + *in* (*waddle/rush/ride etc. in*)
approach + *-ing* (*approach waddling/riding etc.*)
 vb + *as far as* (*waddle/rush/ride etc. as far as*)

5.2.6. With the more productive Croatian prefixes (such as *iz-*, *od-*, *pre-*, *pro-*), the whole issue of the contrastive approach in bilingual lexicography acquires an entirely different aspect. With contrastively patterning glosses

numbering in the hundreds, and contrastive patterns themselves in the dozens, it is textual management (to coin a term) that now looms large. The emphasis on contrastive patterning will result in the repetitive quality of a sizable share of the target-language glosses. To avoid this, both for reasons of space economy and elegance of solution, an appropriate and efficient lexicographical technique will have to be devised.

5.3. The technique which I developed in the course of work on the BHE employs special *word-formation entries*, more specifically *prefixal entries* and *suffixal entries*. Any highly productive Croatian prefix might illustrate this technique, but I will use *do-* (with its five meanings). Here, then, is the prefixal entry *do-* from the dictionary mentioned (and hence referred to as the BHE) in its entirety:

do- *pref*

1. *prostorno*

npr. *dotrčati* run up, run over, come⁴⁰ running

dotrčati do run up to, run over to, run as far as, reach (by) running, approach running

2. *dovršavanje radnje*

npr. *doorati* finish⁴¹ ploughing, have finished/done ploughing, plough one's last

dopiti drink everything, drink up, drink what is left

3. *potpunost; viši stupanj*

npr. *dokuhati* boil a little longer/more, boil more thoroughly, boil until (it is) done/ready/finished, boil enough/sufficiently/completely

4. *dodatna količina*

npr. *doplesti* knit a little/few more, knit some more of

5. *vremenski*

npr. *doratni* prewar, before-war, antebellum

5.4. To grasp fully how the technique developed and used in the BHE works, one has to visualize the prefixal entries as hubs of a cross-referencing system with spokes ending in a number of "satellite" entries. (Numbered arrows explain the reason for cross-referencing see front, inside cover of the BHE for details/.) Here is an example of such an entry:

doklipsisati vi pf come⁴⁰ trudging *itd.* (→¹⁵ *do-* /1/)

As we can see, only one gloss (*come trudging*) is offered and the user is referred to the prefixal entry *do-* and, more specifically, to its first section (covering the spatial meaning of the prefix). There (cf. above), following their patterning offered, he can quickly and simply generate these additional glosses:

/1/ *trudge up, trudge over; trudge up to, trudge over to, trudge as far as, reach (by) trudging, approach trudging*

A total of seven glosses has been effortlessly created in this manner. What is more, this number can be expanded by another two (*arrive trudging* and *enter trudging*) through an equally quick and simple procedure. All it takes is to look up the numerical index ⁽⁴⁰⁾ on the dictionary's back inside cover. There, a Table of Alternative Words/Expressions offers this string of lexical alternatives: *come/reach/arrive/approach/enter* + *-ing*.

It should perhaps be pointed out here that the average user does not *have* to use any of these innovative lexicographical techniques. He can happily ignore both the numbered arrow (\rightarrow^{45}) and the numerical index ⁽⁴⁰⁾ and simply use the single solution offered: *doklipsati* = *come trudging*.

5.5. A semantically more complex entry will refer the user to other sections of the prefixal entry under discussion:

domijesiti vt pf finish⁴¹ kneading *itd.* (\rightarrow^{45} *do-* /2,3,4/) And the following additional glosses will be generated:

/2/ *have finished kneading, have done kneading, knead one's last, knead what is left, knead a little longer, knead a little more, knead more thoroughly*

/3/ *knead until (it is) done, knead until (it is) ready, knead until (it is) finished, knead enough, knead sufficiently, knead completely*

/4/ *knead a few more, knead some more of*

Here, then, is a total of 15 additional glosses, almost an *embarras de choix*, but this is not the whole story. Making use of the numerical index — now ⁽⁴¹⁾ — and looking up again the Table of Alternatives, we will be able to generate 6 more glosses (for a grand total of 21):

stop kneading, cease kneading, end kneading, be through with kneading, complete kneading, terminate kneading

5.6. Evidently, the more highly productive a Croatian prefix is, the more space savings will be achieved. At the same time, however, in view of the higher polysemy of such prefixes, the structure of corresponding prefixal entries in the BHE has to be more complex. Yet, if properly designed, such entries will not present the user with any difficulty. This can be illustrated with the highly, indeed extremely, productive prefix *na-* with reflexive verbs. We will start from the satellite entry:

naprati se vr pf have had enough of washing *itd.* (\rightarrow^{45} *na-* /4/)

Section /4/ of the prefixal entry *na-*, itself subdivided into five semantic subgroups, supplies the user with an impressive total of 28 glosses:

a) meaning "to a considerable degree"

wash a long time, wash many times, wash (very) often, wash repeatedly, wash again and again, wash and wash, wash a lot⁴⁷ of, do a lot of washing, do plenty of washing, have done a lot of washing, have done plenty of washing

b) meaning "to an excessive degree, to surfeit"

be weary of washing, be fed up with washing, get tired of washing, have (had) enough of washing, wash and wash and wash, wash until one cannot do it any longer, wash until one has had enough (of it), have done/seen one's share of washing, have been through one's share of washing, have (had) one's fill of washing, wash one's fill, wash an awful lot of, wash tons⁴⁷ of

c) meaning "to a degree that satisfies"

wash to one's heart's content, wash to the top of one's bent, wash all one wants, wash one's fill, have (had) one's fill of washing, have (had) enough of washing, wash until one has (had) enough (of it)

d) meaning "to a degree which is expected"

wash one's share, do one's share of washing, wash enough, wash sufficiently

e) meaning completion

have done washing, finish⁴¹ washing

A careful enumeration of the glosses listed, taking into account the variants indicated (but also some overlap between subgroups /b/ and /c/), yields a total of 37 glosses. To this, of course, must be added the alternatives supplied by indices (41) and (47). The seven items provided by (41) have already been listed, but (47) triggers a still-expanding swarm of alternatives, presently totaling 27 items (such as *loads of, stacks of, a whole heap of, acres of, oodles of, quite a few* etc.) Consequently, the grand total of glosses offered by the BHE for the deceptively simple entry *naprati se* is no less than 64, and sure to expand as new alternatives are retrieved from such sources as translations, vocabulary-expansion reference works, synonym dictionaries, thesauri and wide personal reading lexicologically aimed.

5.7. This survey of the lexicographical implications of contrastive analysis of prefixation in English and Croatian may be rounded off profitably with a discussion of some contrastive-lexicographical aspects of the Croatian prefix *ne-*.

Of universal applicability, this prefix can be attached to literally every noun, adjective and adverb. The restrictions are only logical and operate largely with nouns (*cilj* → **necilj*, *drogerija* → **nedrogerija*, *labud* → **nelabud*). The meaning of *ne-* is broadly negative and is conveyed to any lexical item to which it is attached, resulting in a simple negation of the original meaning, absence of original quality, a contrary quality, absence of action etc. (*znanje* → *neznanje*, *izdržljiv* → *neizdržljiv*, *veselo* → *neveselo*, *vršenje* → *nevršenje*). In a limited number of cases, where the lexical item already had a negative meaning, prefixation with *ne-* results in a positive meaning: *neindiskretan* → *ne indiskretan* → *diskretan*, *nebojažljiv* → *ne bojažljiv* → *smion*.

In English, however, negative meaning is expressed with significantly less uniformity. There is no universal negative prefix such as *ne-*, its place

being shared by *un-*, *non-* and *in-*. We are, therefore, faced with *nedramatičan* : *undramatic, nondramatic*; also with *neljudski* : *unhuman, nonhuman, inhuman*; and *nečovječan* : *inhumane*. Further, the meaning of *un-* is not exclusively negative, resulting in faulty pairing and ambiguities of the type *neoljušten* : *unpeeled*. Consequently, the safest translation of the Croatian *ne-* may often be the English adverb *not* (*nedramatičan* : *not dramatic*), though subject to certain syntactic restrictions. To complicate matters even more, the negative suffix *-less* is not infrequently the equivalent of *ne-* (*nezakonit* : *lawless*). Finally, a number of periphrastic English translations also offer themselves in patterns opposite the Croatian *ne-* (*neautoritativan* : *void of authority*; *nesocijalistički* /adv/ : *in a nonsocialist manner, in non-socialist terms, along nonsocialist lines*; *neodređivanje* : *failure to define, lack of definition*).

To sum up, a highly regular and dependably productive word-formation pattern in the source language (Croatian) has no opposite pattern of corresponding uniformity in the target language (English). Still, the target language reveals a range of significant patterning of varying applicability that calls for contrastive research and descriptive statements both powerful and economical.

5.7.2 In lexicographical terms, the obvious solution is a complex prefixal entry for *ne-*, functioning as a cross-referencing hub for a large number of satellite entries, all beginning in the same prefix. After what must be termed extensive contrastive research, such a prefixal entry was designed and incorporated in the BHE. Its complexity is best indicated by the total of patterns that it contains (47). These are unevenly distributed among the entry's four sections: (A) adjectives in *ne-* /19/; (B) adverbs in *ne-* /10/; (C) nouns in *ne-*, ending in *-nje* /7/; (D) nouns in *ne-*, ending in *-ost* /11/. A special feature — and another lexicographical innovation — of this entry are comments provided with about a quarter of the 47 patterns. Offering stylistic, syntactic and semantic advice on the choice of alternative glosses, some of them amount to capsule articles about usage and translation technique.

5.7.3. All this may leave one with the impression that a prefixal entry of such complexity is self-defeating, more trouble to use than probably worth. It should be pointed out, however, that the dictionary user, starting from his (satellite) entry, is not directed to *ne-* as a whole but to a specific batch of patterns clearly numbered and easy to consult. The profitability of using the BHE system is best illustrated with actual glosses generated by it for a semantic cluster of satellite entries, each representing one of the four sections of the prefixal entry *ne-*. They are, in alphabetical order, *nediferenciran* (for sections 1—13), *nediferencirano* (20—27), *nediferenciranost* (40—48) and *nediferenciranje* (30—36). None of these, by the way, is listed in any Croatian-English (or Serbian-English) dictionaries, available or out of print. So much for their claim to a representative entry selection.) The gaps in section numbering are caused by the omission of sections not applicable to

the entry in question. Thus, sections 14—18 only apply to the *ne...-iv* and *ne...-abilan* adjectives, 28—29 to adverbs of the *ne...-ivo* and *ne...-abilno* types, and 48—49 to nouns whose makeup was *ne...-ivost* and *ne...-abilnost*. As to the gap 37—39, it is simply due to the fact that there are only seven patterns (30—36) in section C.

Here, then, are our four illustrative satellite entries:

- 1) *nediferenciran pp & adf* undifferentiated, lacking³⁵ differentiation (→¹⁵ *ne- /1—13/*)

Additional glosses generated by the BHE system (some definitely marginal) are:

not differentiated /1/; other-than-differentiated, less-than-differentiated /5/; differentiation-free /7/; free of/from differentiation, (de)void of differentiation /8/; with no differentiation, wanting differentiation (also offered by Alternatives Table) /9/; without differentiation, of no differentiation /10/; in need of differentiation /11/; (differentiated or) otherwise /13/

- 2) *nediferencirano adv* without differentiation, in an undifferentiated manner³³ (→¹⁵ *ne- /20—27/*)

BHE-generated additional glosses (some marginal):

undifferentiatedly /20/; not differentiatedly /21/; less than differentiatedly /22/; in an undifferentiated way/fashion (also offered by Alternatives Table), in a manner/way/fashion lacking differentiation, in a m/w/f. (de)void of differentiation, in a m/w/f. free from/of differentiation, in a less-than-differentiated m/w/f. /23/; with an undifferentiated quality/character/appearance, in an undifferentiated condition/state/status /24/; without differentiation, with no differentiation, without being differentiated /25/; with low/inadequate differentiation, with a low level/degree of differentiation, with an inadequate level/degree of differentiation /26/; in undifferentiated terms, along undifferentiated lines, using an undifferentiated approach /27/

- 3) *nediferenciranost f* nondifferentiation, absence³⁴ of differentiation (→¹⁵ *ne- /40—48/*)

BHE-generated additional glosses (some marginal):

being undifferentiated, being without differentiation /42/; lack/want of differentiation (also offered by Alternatives Table), omission of differentiation, freedom/refrainment from differentiation /43/; no differentiation /44/; undifferentiated quality/condition/state³² (Alternatives Table also: undifferentiated nature/character/status/appearance/mode/manner/way(s)/approach) /45/; inadequate differentiation /46/; low differentiation /47/; inadequate level/degree of differentiation, low level/degree of differentiation /48/

- 4) *nediferenciranje n* nondifferentiation, failure to differentiate (→¹⁵ *ne- /30—36/*)

BHE-generated additional glosses (some marginal):

not differentiating /30/; no differentiating, no differentiation /31/; Lack/absence/want/nonoccurrence of differentiation (also offered by Alternatives Table) /33/; failing/neglect(ing)/omitting/omission/refrainment/refraining to differentiate /34/; neglect/omission of differentiation, refrainment/refraining from differentiation, dispensal/dispensing with differentiation, neglecting/ omitting differentiation /35/; leaving undifferentiated /36/

5.8. The results speak for themselves and the contrastive approach to bilingual lexicography has amply justified itself, both in terms of linguistic creativity and economy of approach. The convincingly demonstrated enormous savings in dictionary space, though an important end in themselves, now open up new possibilities of dictionary organization. The fact that probably three quarters of all Croatian entries in a bilingual dictionary are prefixable with *ne-* (verbs are easily offset by verbal nouns in *-nje*), suggests a strong potential for increasing the total number of entries by some 80%. (The increase of dictionary volume would, naturally, be much lower since phraseological sections are not involved, together with a sizable share of the preceding glosses.) However, current lexicographical practice in dealing with this major sector of vocabulary offers only an intuitive, hit-or-miss solution, resulting in meager, unrepresentative, unsystematic selections. Thus the medium-sized (ca. 50,000 items) Croatian-English dictionary by M. Drvodelić sets aside a mere 4% of its volume for all entries beginning in *ne-*. Rigorous techniques of selection should, therefore, be evolved, an effort much overdue but now significantly facilitated by the drastically scaled down structure of satellite entries. But, however important a facet of lexicographical procedure this issue might be, it is only incidental to the contrastive approach to lexicography.

REFERENCES

- Barić, E. et al.
1979 *Priručna gramatika hrvatskoga književnog jezika*, Školska knjiga, Zagreb, 527 pp.
- Bujas, Z.
1967 "Concordancing as a Method in Contrastive Analysis". *Studia Romanica et Anglica Zagrabienisa*, 23, Zagreb, 26—30.
1969 "A Brief Outline of Planned Work on Derivation", *The Yugoslav Serbo-Croatian — English Contrastive Project, Reports, 1*, Zagreb, 26—30.
1980 "Stvaranje dvojezične leksikografske datoteke ručnim preokretanjem i njezino vrednovanje" [Building a Bilingual Lexicographical File by Manual Conversion and Its Evaluation], *Filologija*, 10, Zagreb, 199—212.
1983 *Croatoserbian-English Eecyclopedic Dictionary*, vol. 1, Grafički Zavod Hrvatske, Zagreb, 665 pp. (+ 11 pp. of introduction)
- Ivir, V.
1968 "Serbo-Croatian — English False-Pair Types", *Studia Romanica et Anglica Zagrabienisa*, 25—26, Zagreb, 149—159.

Marchand, H.

1969 *The Categories and Types of Present-Day English Word-Formation*, C. H. Beck, Munich, 545 pp.

Pavešić, S. & Vince Z.

1971 *Gramatika i Jezični savjetnik s gramatikom* (ed. S. Pavešić), Nakladni zavod Matice Hrvatske, Zagreb, 446 pp.

Quirk, R. et al.

1972 *A Grammar of Contemporary English*, Longman, London, 1120 pp.

Urbany, M.

1977 in *Hrvatskosrpsko-engleski džepni rječnik* (ed. R. Filipović), Langenscheidt-Mladost, Zagreb, 458 pp.

KONTRASTIVNA ANALIZA PREFIKSACIJE U ENGLESKOM I HRVATSKOM

Prvi dio ovog rada, nakon uvoda, sadrži kratki pregled tradicionalnog opisa prefiksacije u engleskom i hrvatskom. Pregled obuhvaća svojstva prefikasa u spomenutim jezicima (porijeklo; današnji status prefikasa strane etimologije; odnose osnove i prefiksa; pravopis; fonologiju; naglasak; konverzijski potencijal; značenje) i njihovu klasifikaciju (prikazujući je semantički, kao jednim od devet mogućih pristupa).

Navedena svojstva koriste se zatim u drugom dijelu rasprave — u kontrastivnoj analizi engleskih i hrvatskih prefikasa. Dvije kontrastivno relevantne distribucije kategorije (/1/ preklapanje, /2/ prisutnost u jednom od kontrastiranih jezika) upućuju na mogućnost interferencije kod samo dva spomenuta svojstva: porijekla i fonologije. Ali istraživanje uzajamnih prijevodnih ekvivalenata engleskih i hrvatskih prefikasa, u okviru istih distribucijskih kategorija, ukazuju na značajnu prisutnost kontrastivnih obrazaca (*nad-* : *out-*; *bez-* : *un-*, *-less*, *-free*; *protu-* : *counter-*), neki od kojih su visokoproizvodni (*do-* + Vb : *finish* + Vb + *-ing*, Vb + *some more*, Vb + *until finished*; *na-* + Vb + *se* : Vb + *one's fill*, Vb + *all one wants, have enough of* + Vb + *-ing*).

Kratki osvrt na nastavne implikacije odvaja taj dio rada od posljednjeg, najopsežnijeg, dijela koji se bavi leksikografskom relevantnošću kontrastivne analize prefiksacije u engleskom i hrvatskom (čitaj: u dvojezičnoj leksikografiji). Sustavno istraživanje engleskih glosa iz hrvatskih riječničkih natuknica ubrzo otkriva stanoviti broj proizvodnih kontrastivnih obrazaca visoke leksikografske primjenljivosti. To je posebno značajno za hrvatsko-engleske rječnike s tisućama hrvatskih natuknica stvorenih pomoću malog broja visokoproizvodnih prefikasa (*bez-*, *do-*, *iz-*, *na-*, *ne-*, *od-*, *pre-*, *pro-*, *u-*, *za-*). Engleski ekvivalenti ovih prefikasa, mada ni izdaleka uniformni, otkrivaju desetke obrazaca koji, sustavno primijenjeni na proizvodnju engleskih glosa, značajno proširuju i poboljšavaju taj postupak.

Konkretna primjena ove kontrastivne leksikografske tehnike na jednom objavljenom hrvatsko-engleskom rječniku (1983, by Ž. Bujas) ilustrira se zatim hrvatskim natuknicama s prefiksima *do-* (s 21 mogućim kontrastivnim obrascem među engleskim glosama), *na-* (u povratnim glagolima; s 64 obrasca) i *ne-* (59 obrazaca). Dosljedna primjena ove inovativne tehnike, tj. iscrpni popisi svih mogućih kontrastivnih obrazaca, imala bi za posljedicu glomazne hrvatske natuknice s engleskim glosama koje bi se u znatnoj mjeri ponavljale. Da se to izbjegne, zamišljene su i razrađene posebne prefiksne (tvorbene) natuknice. Pružajući pregledne popise mogućih engleskih glosa okupljenih u kontrastivne obrasce, i služeći kao stožeri upućivanju stotinama/tisućama "satelitskih natuknica", ove tvorbene natuknice znatno poboljšavaju djelotvornost dvojezičnih rječnika, osiguravajući ih istovremeno od glomaznosti.