

VOLUME SIX

ENCYCLOPEDIA OF LANGUAGE & LINGUISTICS

SECOND EDITION

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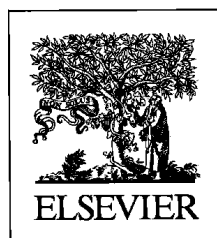
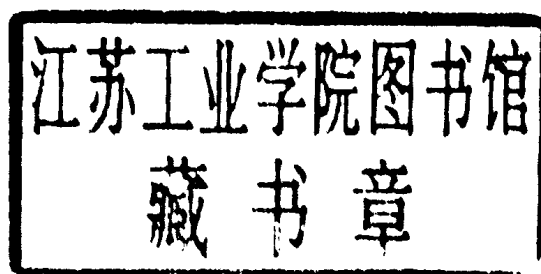
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GUIDE TO USE OF THE ENCYCLOPEDIA

Structure of the Encyclopedia

The material in the Encyclopedia is arranged as a series of articles in alphabetical order. To help you realize the full potential of the material in the Encyclopedia we have provided several features to help you find the topic of your choice: an Alphabetical list of Articles, a Subject Classification, Cross-References and a Subject Index.

1. Alphabetical List of Articles

Your first point of reference will probably be the alphabetical list of articles. It provides a full alphabetical listing of all articles in the order they appear within the work. This list appears at the front of each volume, and will provide you with both the volume number and the page number of the article.

Alternatively, you may choose to browse through the work using the alphabetical order of the articles as your guide. To assist you in identifying your location within the Encyclopedia, a running head line indicates the current article.

You will also find 'dummy entries' for certain languages for which alternative language names exist within the alphabetical list of articles and body text.

For example, if you were attempting to locate material on the *Apalachee* language via the contents list, you would find the following:

Apalachee See Muskogean Languages.

The dummy entry directs you to the *Muskogean Languages* article.

If you were trying to locate the material by browsing through the text and you looked up *Apalachee*, you would find the following information provided in the dummy entry:

Apalachee See: Muskogean Languages.
--

2. Subject Classification

The subject classification is intended for use as a thematic guide to the contents of the Encyclopedia. It is divided by subject areas into 36 sections; most sections are further subdivided where appropriate. The sections and subdivisions appear alphabetically, as do the articles within each section. For quick reference, a list of the section headings and subheadings is provided at the start of the subject classification.

Every article in the encyclopedia is listed under at least one section, and a large number are also listed under one or more additional relevant sections. Biographical entries are an exception to this policy; they are listed only under biographies. Except for a very few cases, repeat entries have been avoided within sections, and a given

article will appear only in the most appropriate subdivisions. Again, biographical entries are the main exception, with many linguists appearing in several subdivisions within biographies.

As explained in the introduction to the Encyclopedia, practical considerations necessitate that, of living linguists, only the older generation receive biographical entries. Those for members of the Encyclopedia's Honorary Editorial Advisory Board and Executive Editorial Board appear separately in Volume 1 and are not listed in the classified list of entries.

3. Cross-References

All of the articles in the Encyclopedia have been extensively cross-referenced. The cross-references, which appear at the end of each article, serve three different functions. For example, at the end of *Norwegian* article, cross-references are used:

1. to indicate if a topic is discussed in greater detail elsewhere

Norwegian

See also: Aasen, Ivar Andreas (1813–1896); Danish; Inflection and Derivation; Language/Dialect Contact; Language and Dialect: Linguistic Varieties; Morphological Typology; **Norway: Language Situation**; Norse and Icelandic; Scandinavian Lexicography; Subjects and the Extended Projection Principle; Swedish.

2. to draw the reader's attention to parallel discussions in other articles

Norwegian

See also: Aasen, Ivar Andreas (1813–1896); **Danish**; Inflection and Derivation; Language/Dialect Contact; Language and Dialect: Linguistic Varieties; Morphological Typology, Norway: Language Situation; **Norse and Icelandic**; **Scandinavian Lexicography**; Subjects and the Extended Projection Principle; **Swedish**.

3. to indicate material that broadens the discussion

Norwegian

See also: **Aasen, Ivar Andreas (1813–1896)**; Danish; **Inflection and Derivation**; **Language/Dialect Contact**; **Language and Dialect: Linguistic Varieties**; Morphological Typology; Norway: **Language Situation**; Norse and Icelandic; Scandinavian Lexicography; **Subjects and the Extended Projection Principle**; Swedish.

4. Subject Index

The index provides you with the page number where the material is located, and the index entries differentiate between material that is an entire article, part of an article, or data presented in a figure or table. Detailed notes are provided on the opening page of the index.

Other End Matter

In addition to the articles that form the main body of the Encyclopedia, there are 176 Ethnologue maps; a full list of contributors with contributor names, affiliations, and article titles; a List of Languages, and a Glossary. All of these appear in the last volume of the Encyclopedia.

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Inupiaq

L D Kaplan, University of Alaska, Fairbanks, AK, USA

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Introduction and Dialectology

Inupiaq (Inupiatun, North Alaskan and Inupiatun, Northwest Alaska) is an Eskimo-Aleut language spoken in Alaska, part of the Inuit branch or Eastern group of Eskimo languages and distinct from the Yupik languages. Extending across the Arctic from Alaska through Canada to Greenland, Inuit varieties differ from each other in significant ways but nowhere is there found a sharp internal break that would constitute a language border, and so they are considered a dialect continuum (Figure 1). The Inuit groups of the Eastern Arctic are a diaspora that spread from Alaska, and the Bering Sea area is recognized as the homeland of the Eskimo-Aleut language family and people (*see Eskimo-Aleut*).

Inupiaq comprises two dialect groups, North Alaskan Inupiaq (NAI) and Seward Peninsula Inupiaq (SPI), each with two dialects. NAI includes the North Slope and the Malimiut dialects, with the

former spoken along the Arctic coast and the latter found around Kotzebue Sound, along the Kobuk River and south at the head of Norton Sound. SPI includes the Qawiaraq dialect, found along the northern shore of Norton Sound, on the southeastern Seward Peninsula and at Teller, and the Bering Strait dialect is found along the shores of Bering Strait and on the offshore islands, King Island (now uninhabited), and Little Diomedede. Dialects are distinguished primarily in terms of phonology, lexicon, and morphology and include a number of subdialects.

Phonology and Writing

The Alaskan Inupiaq writing system was developed by Roy Ahmaogak, a Barrow Inupiaq minister, and linguist Eugene Nida in 1946 and has undergone revisions since. Current orthographic symbols are given below with equivalent phonetic symbols in parentheses where the two differ. The entire palatal series is absent in SPI, *z* is present only in the Bering Strait dialect, and *e* has limited occurrence, found in SPI only, particularly on Little Diomedede Island.

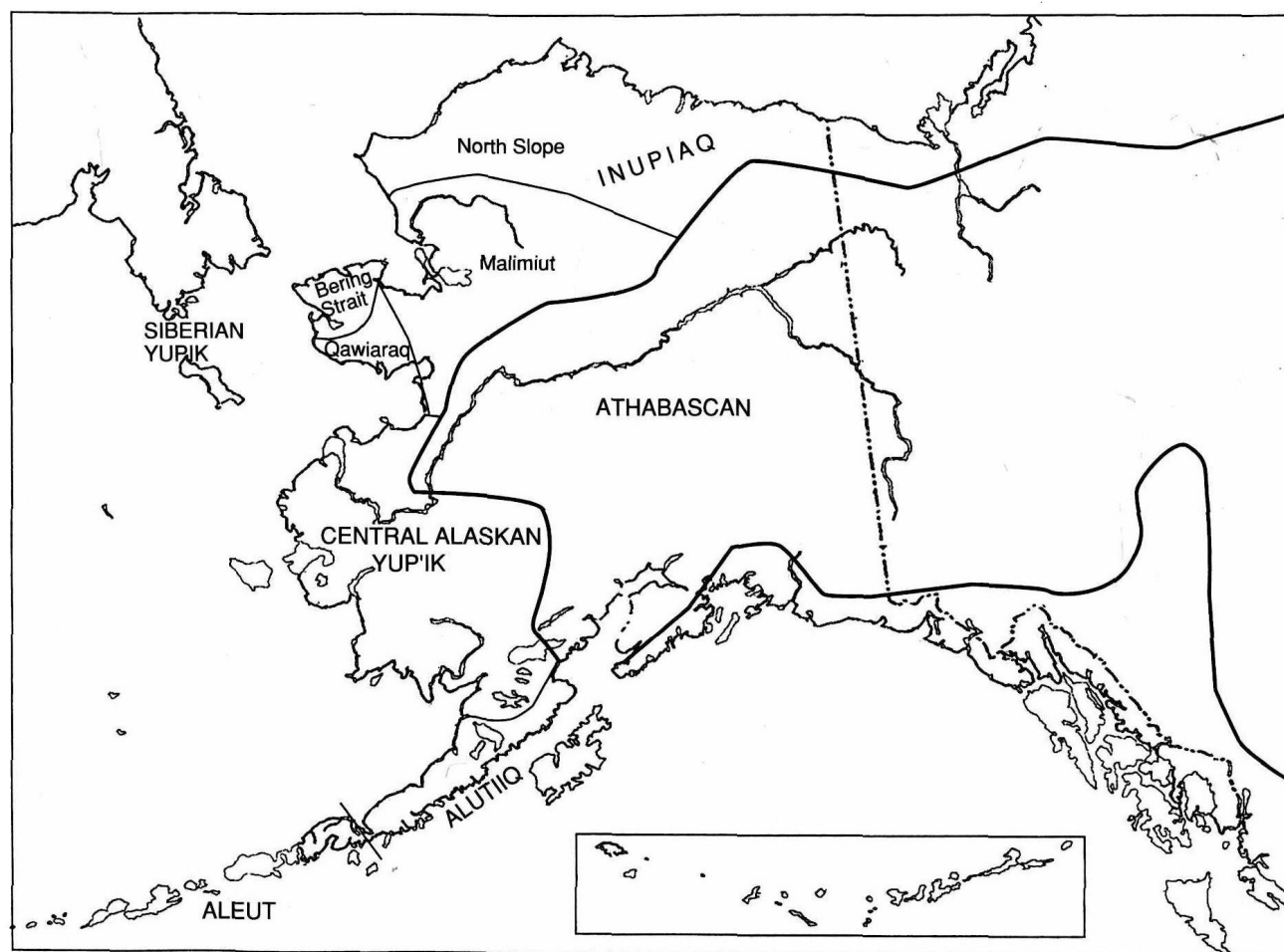


Figure 1 Eskimo-Aleut languages of Alaska.

Consonants:

p t ch(č) k q '(ʔ)
 ɬ(ɬ) ɮ(ɮ) ɭ(ɭ), y g (ɣ) ǵ(ʁ)
 m n ñ ŋ

Vowels and diphthongs:

i e(ɛ) u
 a

Consonants and vowels can be long and are then written double. Any two vowels with the exception of *e* may be paired: *ai ia ua au iu ui*. In most of Malimiut, certain diphthong pairs have coalesced and are pronounced identically: *ia* and *ai* are pronounced [e:], *au* and *ua* are pronounced [o:], and *iu* is pronounced like *ii* as [i:]. A major phonological phenomenon in Inuit languages is consonant assimilation, which increases in magnitude as one travels east (see **West Greenlandic**). Alaskan Inupiaq has differentiated clusters, although the North Slope dialect has assimilation by manner of articulation. Palatalization of alveolar consonants is notable in NAI, with palatalization of some velars found in much of Malimiut. A major distinguishing feature of the Inuit branch is the simplification of the Proto-Eskimo four-vowel system by the merger of the central vowel *i*, principally with *i*. Reflexes of historical *i* trigger progressive palatalization of alveolars and assibilation of prevocalic *t* in NAI: NAI *iñuk* 'person' but SPI *inuk* and NAI *isiq-* 'enter' but SPI *itiq-*. Reflexes of the fourth vowel *i* are typically [ɪ] but may undergo deletion or alternation with other vowels.

Morphology and Syntax

Inupiaq is a highly polysynthetic language, and suffixation creates very long words, so that a word is often equivalent to an entire English sentence. Words are typically constructed of a noun or verb stem, one or more derivational suffixes, and an inflectional ending, and may be singular, dual, or plural in number. Examples are from the North Slope dialect:

- (1) atug-nia-ŋit-chuk
 sing-FUT-NEG-3du/INTRANS
 'they (two) will not sing'

Verbs may be intransitive or transitive, and transitive verb endings mark number and person of both subject and object.

- (2) tautuk-kaat
 see-3plSUBJ/3singOBJ
 'they see him/her/it'

The verb ending here expresses the subject and direct object, and pronouns are unnecessary, although they can be added in, as can nouns. Pronouns express

person and number but not gender, which is expressed only by nouns. There are no articles.

- (3) aŋutit aǵnaq tautuk-kaat
 men.pl womañ see-3plSUBJ/3singOBJ
 'the men see the woman'

Word order is Subject-Object-Verb, although the complex inflectional system makes free word order possible. Through the influence of English, many speakers now prefer SVO order.

Lexicon and Ethnonyms

Lexical borrowing is primarily from Russian and English. Although the Russians never had a permanent presence in Inupiaq Alaska, the dozen or so Russian borrowings found in Inupiaq were probably introduced through trade with mainland Yupiks to the south and are found principally in SPI and Malimiut. Early English borrowings were introduced beginning in the late 19th century through contact with traders and whalers and were well integrated phonologically (e.g., *palauvak* 'flour'). Modern-day bilingualism often gives rise to use of English words in Inupiaq speech, but these occurrences cannot be considered true borrowings.

Besides indicating the name of the language, 'Inupiaq' can also be used in English either as an adjective (e.g., the Inupiaq language) or a singular noun for a person (e.g., an Inupiaq from Barrow). The plural 'Inupiat' also is used for people (the Inupiat people, the North Slope Inupiat). With consonant palatalization, NAI uses the spellings 'Iñupiaq' and 'Iñupiat,' whereas SPI lacks palatalization and uses 'Inupiaq' and 'Inupiat.' Alaskans also use 'Eskimo,' although this term is disfavored in Canada.

Population and Viability

There are some 13 500 Inupiat in Alaska, about 3000 of whom speak the Native language. Inupiat are now bilingual or speak only English. Most speakers are in their late forties or older, and in some areas the youngest Inupiaq speakers are in their sixties or even seventies. The language shift to English is brought about by a number of factors: government, education, and media are largely in English (although Inupiaq is often heard on the radio); monolingual English speakers have lived among the Inupiat for decades; and airplanes have made travel outside the area easy. In addition, past Inupiaq language use was discouraged and often punished by teachers and school officials. In 1998, a majority voted to make English Alaska's official language, sending a negative message in the view of Native language supporters.

The continued use of Inupiaq as a spoken language is threatened, and efforts at revitalization consist largely of school language classes. Language immersion programs exist in elementary schools in Kotzebue and Barrow, from which it is hoped that new generations of Inupiaq speakers will emerge.

See also: Canada: Language Situation; Eskimo-Aleut; West Greenlandic; United States of America: Language Situation.

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Invented Language in Literature

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Invented Language and Literary Worlds

All creative language, articulated in literary texts, is invented language, of course. However, all creative fiction depends on a greater or lesser degree of difference between our actual world and the imagined world of the text. Even a highly realist and naturalistic narrative, even a documentary fiction or even a historical reconstruction are all likely to depart in small ways from the hard reality, and the form of expression used to articulate the divergent world will need to be different (and invented) from the language that is really real. As soon as a proper name for a character ('Snoopy,' 'Hamlet,' 'Heathcliff') is used, this invention serves to mark the divergence of worlds from that of the reader. Even words with apparently stable referents are used inventively in literary fiction: Dicken's 'London' is not our London; Philip Pullman's different 'Oxfords' are explicitly not our Oxford; even Wilfred Owen's Great War trenches are his literary projection of that landscape, rather than the landscape itself.

Furthermore, literary authors tend to express themselves in ways that are commonly regarded as 'poetic' or 'expressive.' This stylistic creativity can be manifest as metaphorical compounds (the Old English 'mere-stape' – 'sea-stepper' for a ship), or as lexical blends (e.e. cummings's 'manunkind'), or as grammatical disjunction (Robert Heinlein's 'the door dilated'), and so on. In most literature, though, these

examples of departures from everyday language are minimal and serve only to mark out a local effect. They are usually one-off creations rather than being part of a thoroughly worked-out and systematic linguistic structure.

In this article, more radical linguistic inventiveness will be discussed, ranging from the creation of sets of new words that have a strong iconic value, to the creation of fully-fledged invented language systems. The functions of such creative artifacts will also be discussed, but it is worth pointing out at the beginning that the primary function of new language in literary fiction is to delineate the distance and connections between the reader's world and the world imagined in the text. Whether the invented language is for local ornamental color or seems intended for a central thematic purpose, imaginary lexis, grammar, and pragmatic patterns play an important role in establishing the readerly perception of escapism or political comment. Delineating the difference between the textual world and the reader's world is the first step in determining the significance of the work, in making identifications for empathy or satire, in being able to generalize the specifics of the story-world onto principles for the reader's world.

This article begins with the smallest scale of linguistic inventiveness, in new words and new uses for existing words, before going on to consider higher level discourse creativity, and then full invented language systems. In setting out this scale, however, it is important to realize that a few well-placed new words can have as significant an effect as thoroughly imagined rich linguistic innovation. Therefore, this article will consider the artistic function of inventiveness separately. The article ends with a consideration of

the linguistic assumptions that seem to underlie these linguistic experiments. Since most examples of invented language come from the genres of science fiction and fantasy, the way that sf authors have imagined the science of linguistics is relevant to the discussion.

Neologism and Neosemy

New words ('neologisms') are a particular feature of science fiction (sf) and fantasy literature, where they have also been termed 'lexoids' (Mary Ellen Ryder, personal communication). Sf filled its early adventure stories with 'ray-guns,' 'ion-drives,' and 'teleporters,' and featured 'warp-speed' 'starships,' 'flying saucers,' and 'cyborgs.' There are clearly several types of word-formation at work here, drawing on all of the available resources of lexical generation in English. The following typology of neologisms is drawn from Stockwell (2000: 115–138).

Perhaps the most common form (unsurprisingly for a Germanic-based language like English) is compounding. Here, root words can be placed together as a single word lexical blend ('teleport,' 'holodeck,' 'cyberspace'). The most common source for such compounds draws on noun-combinations (N+N), as in 'wormhole' and 'starship' and hyphenated forms, such as 'ion-gun' and 'rim-world.' Because of the commonality of the source lexis here, it is fairly easy to work out a meaning for such neologisms, especially as they are always used in a disambiguating narrative context. N+V forms ('warp-drive,' 'terraform') also occur, and even Adj+V ('Newspeak') and V+Adj ('spindizzy'). Single-word neologisms such as these are typical of technologically-based science fiction, where a new invention or technical phenomenon requires an invented and brief label.

Compounding can also take the form of multi-word lexical items, such as 'flying saucer,' 'dilithium crystal,' 'tractor beam,' 'force field,' and many others. These, too, are very common in science fiction as they carry the flavor of a technical specification as well as often drawing on a scientific register. A less common form of phrasal circumlocution is also found, where the sense of 'newness' is diminished because the source elements are easily recognized. Examples such as 'sense-of-we-feeling,' 'Bug Eyed Monster,' or 'cultural engineering' retain a sense of a familiar phenomenon modified in the imagined world. All of these examples are fairly easy to understand.

Neologisms can also be created by borrowing. In this case, the borrowing can be from either terrestrial or imagined alien languages – though of course often the imagined alien language bears uncanny resemblance to root morphemes in terrestrial languages.

In early sf, words were often borrowed from languages perceived by the British or American writers to be exotic. The proto-science fictional *Historie of the man in the moone* (1634) by Bishop Francis Godwin has the moon people speaking 'Lunarian,' based on his rather sketchy understanding of how Chinese sounded.

Alien borrowing (the 'Daleks' from *Dr Who*, or the 'Wookies' from *Star Wars*) can always be imagined as having terrestrial influences, of course. By far the most common source languages for neologistic borrowing are Greek and Latin, because of their use in much technical terminology and perhaps also because the decline in classical education over the last century has rendered the etymology more obscure and exotic. 'Sol,' 'Luna,' and 'Terra' have become common names for our local star system. 'Android,' 'cybernetics,' and 'cryogenics' all have Greek origins.

Straightforward original creation is rare, since the etymological origins of neologisms can usually be perceived. Usually only proper names show real creation, and these are then turned into full neologisms by grammatical derivation: 'Odonism,' 'Naderites,' 'Morlocks.' Such derivation also leads to 'back-formation,' where analogous forms are created: 'white holes,' 'corpsicle,' and 'astrogation.' The last two of these also illustrate longer coinages being abbreviated – it is common to find such shortened back-formations breaking the usual morphological boundaries: 'droid' is a broken form of 'android'; and the malicious race of 'Borg' are broken down from 'cyborgs,' which is itself an abbreviated and blended version of 'cybernetic organism,' which in turn consists of two words drawn from Greek.

Shortened forms like these, together with abbreviations, are another means of creating neologisms. 'Fax' (from 'facsimile'), 'bionics' (from 'biological electronics'), and 'cyborg' are all shortened forms that have become perceived as lexical items in their own right. Acronyms formed from the initial letters of phrases have also become lexicalized, and pronounced either 'atomically' in their separate elements ('UFO,' 'ESP,' 'ET') or 'molecularly' as a phonetic sequence (as in 'ufologist,' one who investigates unidentified flying objects; and 'esper' who has the power of extra-sensory perception; and the research organization 'SETI,' searching for extraterrestrial intelligence).

Of course, all the usual morphological inflections of English (such as the 's'-plural, the 'ing'-participle, the 'ed'-past suffix, and so on) further extend most of these neologisms. It is rare, however, with single neologisms to find inflectional creativity in literature. There is no parallel of the historical shift in

English from the third-person verb suffix ‘-eth’ to ‘-s’ (‘maketh’ to ‘makes’), for example. Where there is innovation in grammatical particles, these tend to form part of a fully-fledged imagined linguistic system, rather than simply being associated with isolated neologisms.

Aside from neologisms proper, literary fiction tends to rely on ‘neosemy’ (a term coined in Stockwell, 2000), in the sense of a new meaning developed for an existing word. The neologism ‘utopia’ for example (from Thomas More’s 1516 work (1910)) was coined as a proper name for his idealized island but has since been extended to refer to any idealized state, and inflected into ‘utopian,’ and back-formed into ‘dystopian’ and ‘heterotopian.’ A ‘flying saucer’ and a ‘black hole,’ strictly speaking, should be regarded as neosemes rather than neologisms. Neosemes have the advantage in literary fiction of making the imagined world seem close and more nearly extrapolated from the reader’s familiar world. Neologisms, by contrast, can seem relatively disjunctive and alien.

Dialectal Extrapolation

More extensive than neologistic innovation but falling short of a full invented language, dialectal invention is a common compromise in literary fiction. Imagining the appropriate register or dialect that applies in the projected world allows the texture of difference to be established while not making undue demands on the reader to engage in detailed decoding. Sometimes, the dialectal projection is simply a product of a high density of neologisms and neosemes, drawn from source lexis that is reasonably easy to recognize. The futuristic dialect of William Gibson’s *Sprawl* series of novels works like this (in fact, it was developed largely from 1970s Canadian biker slang):

Molly was snoring on the temperfoam. A transparent cast ran from her knee to a few millimeters below her crotch, the skin beneath the rigid micropore mottled with bruises, the black shading into ugly yellow. Eight derms, each a different size and colour, ran in a neat line down her left wrist. An Akai transdermal unit lay beside her, its fine red leads connected to input trodes under the cast.

He turned on the tensor beside the Hosaka. The crisp circle of light fell directly on the Flatline’s construct. He slotted some ice, connected the construct, and jacked in. (Gibson, 1984: 98–99)

This passage, from the novel *Neuromancer* (itself a punning lexical blend neologism), displays neologisms that are easy to decode in isolation (‘micropore’), in context (‘snoring on the temper-

foam’), and with a little etymological knowledge (‘derm’). There are abbreviations that would be familiar to sf readers (‘trodes’ from ‘electrodes’), as well as some neosemic usage: ‘ice’ as access to cyberspace, ‘construct’ as a noun for a software program, and ‘jacked’ applied to a human body rather than a machine’s cable.

Similarly, Jeff Noon’s 1993 novel *Vurt* draws on the street-slang of early 1990s Manchester, with some neologistic blends:

Shadowcop! Broadcasting from the store wall, working his mechanisms; flickering lights in smoke. And then a flash of orange; an inpho beam shining out from the shadowcop’s eyes. It caught Mandy in its flare-path, gathering knowledge. She ducked down from the beam, banging, hard-core, on the van doors. (Noon, 1993: 7)

Here the new phenomena are explained by the context, and rather than a clumsy definition being supplied, information is presented appositionally (‘gathering knowledge’) that is consistent with the point of view of the narrator. Both of these examples of dialectal extrapolation serve not only to gesture towards the alternate world, but also serve as part of the characterization in the texts. It is noticeable that literary fictions that feature dialectal innovation tend to be strongly focalized through a participating character: the narrative is thus their dialect, and the invented language takes the reader quickly into the conscious world of the novel.

Such dialectal invention is fairly minimal, of course, and some writers have developed the principle of dialectal extrapolation to underline the alternativity of their imagined worlds. Anthony Burgess, in his 1962 novel *A clockwork orange*, creates a dialectal slang for his violent gang-characters Alex and his ‘droogs’ (friends). Like many lexical items in the novel, this word derives from transliterated or anglicized Russian, along with ‘baboochka’ (old woman), ‘bezoomny’ (mad), ‘bitva’ (battle), ‘gulliver’ (head), ‘horrorshow’ (good), ‘koshka’ (cat), ‘krovvy’ (blood), ‘malchick’ (boy), ‘skazzed’ (said), ‘voloss’ (hair), and many others. The slang is called ‘Nadsat,’ the suffix equivalent to ‘teen’ at the end of the Russian words for the numbers 11 to 19. Nadsat also includes some Cockney-derived words and other inventions: ‘viddy’ (see), ‘pretty polly’ (money), ‘platties’ (clothes), and so on.

Nadsat serves to increase the reader’s involvement with the focalizer, Alex, but replacing many of the words also allows scenes of ‘ultra-violence’ and rape to be portrayed with an immediacy that the reader might otherwise recoil from more instantly. In this way, the novel pitches the reader into Alex’s mind