"Nothing is yours. It is to use. It is to share. If you will not share it you cannot use it." 1

Martin Edwardes, King's College London martin.edwardes@btopenworld.com

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Abstract

In 1974, Ursula Le Guin's novel, *The Dispossessed*, was published. It tells the story of a planet of anarchists, Anarres, and the effect that this culture has on individual scientific freedom. Like all of Le Guin's work, the novel raises interesting questions about human social and cultural systems. In particular, le Guin proposes that a new language, Pravic, was constructed to support the Anarresti social system. Le Guin sees Pravic as deliberately lacking features needed by capitalist or centralised economy cultures — and she picks out possessive pronouns as an anti-anarchistic exemplar.

In September 2015, King's College London announced an art workshop, *UTOPIA 2016: A year of Imagination and Possibility*². One of the projects approved was *Night School on Anarres*, envisioned by the artists Onkar Kular and Noam Toran as an opportunity for people to explore the ideas in *The Dispossessed* – and, particularly, the Pravic language. I and Simon Coffey (also KCL) became involved to help create the language and the lessons for the night school. My role is to design Pravic to be as faithful to Le Guin's vision as possible, but still teachable in some form in a half-hour lesson.

Pravic has proved to be quite a challenge. Abandoning aspects of language which involve possession has meant that Pravic has a form unlike standard human languages. While possessive pronouns were easy to lose, it was less easy to divest the language of possessive verbs like *own*, *keep*, *give*, and even *have*. The need to

¹ Ursula K. Le Guin, The Dispossessed, ch2, p30.

² See http://www.kcl.ac.uk/cultural/newsrecords/151102-Utopia-2016.aspx

downplay the individual as a source of action has produced a passivized verb system; for instance, *John makes tea* is reformulated in Pravic as *tea is-made-by John*.

This paper discusses the Pravic project, and considers the unconscious assumptions our languages lead us to make about the world around us.

Introduction

Designing a conlang, or artlang, is not something to be undertaken lightly. Most conlangs have a native speaker base of less than one, and an active user base which is only slightly larger. So designing a conlang is usually more about experimentation than communication. Even where a conlang does attract a base of interested users, it has to start as an idea inside one head. This means that the conlang author becomes a significant feature of the production process, the ultimate arbiter of which directions will be taken and which abandoned. For this reason, this paper starts with a short personal history.

About the Author

I was an early designer of conlangs, inspired in secondary school by the Middle Earth books of J. R. R. Tolkien. My first conlang, Dododekanese, started as a simple letter replacement code, made pronounceable by the simple expedient of substituting vowels for vowels and consonants for consonants. However, this soon developed its own characteristics, such as: counting in base 8; a tense system which (although I didn't know it at the time) followed Reichenbach's model (Reichenbach, 2005 [1947]); and some phonologically determined irregularities.

A computing career and other interests took me away from conlangs for many years, although I flirted with them again in the 1980s as part of the fantasy role-playing hobby. This time it was the phonology that appealed: which sounds made a language barsh and orclike? Which made it melodious and elflike? How would trolls sound?

This phase also ended, and I spent several years as a computer and business consultant, involved in the practicalities of communication rather than the technicalities. In 1996 a friend persuaded me to take an English Language A level, a step that led next to an MA by independent study in Language and Grammar, and then to a PhD in Language Origins. Since 2007 I have been employed by King's College London as a visiting lecturer, and in 2015 my proposal for a module on conlangs and language evolution was accepted. It ran for the first time in Autumn 2015.

About the Module

The Making of Language module is based around two topic areas: the way languages are constructed, and the origins of language. There is a choice of two tasks: students can either write an essay about aspects of language origins or they can write a report about a fictional language of their creation. This two-track approach has not been a complete success: the students producing conlangs seem to have found value in most of the lectures, but those interested in the origins of language felt that the language

structure lectures could have been targeted better at their needs. This is being reviewed for next year.

Nonetheless, the module seems to have been a success with the students. Their feedback gave the module design 4.7, teaching 4.8, overall satisfaction 4.8, and a perfect 5 for clarity of marking criteria. More importantly, it produced some impressive work by the students.

Of the 19 students who took the module, five opted for the language origins essay while 14 chose the conlang assignment. The conlangs described included a mermaid gestural language, complete with a gestural phonology; and a language for a relict population of pre-Homo sapiens (the student called the species Homo baikalensis, being inspired by the recent discoveries of H. naledi and H.floresiensis to explore vocal equipment as well as cultural considerations). There were several dystopic future languages, and some ancient remnant languages; but, surprisingly, no extinct languages and only one nonhuman science fiction language. The person who secondmarked the assignments, a phonologist, commented on the level of work and commitment by the students, and the high standard of language description.

About The Dispossessed

The book, *The Dispossessed*, was first published in 1974, and I first read it in 1975. It is one of Le Guin's Hainish cycle, a set of novels giving a loose history of humans in space (although Le Guin herself does not see the stories as constituting a story cycle³). *The Dispossessed* is the fifth Hainish novel in order of writing, but it is the earliest story in the cycle. It tells the story of Shevek, a physicist brought up on the anarchistic moon⁴ Anarres, and his move to, and life on, the planet Urras – which has more than a passing resemblance to Earth in the 1970s. His encounters with the capitalist economy of A-Io are contrasted, in a series of flashbacks, with his earlier experiences on Anarres. Although Shevek moved to Urras to escape a stifling scientific orthodoxy on his home world, he finds that Urras has its own restrictions. It seems, from the novel, that everywhere in science there are egoists who are sustaining their careers through the efforts of others – a conclusion that it is probably wise not to extend to linguistics.

Le Guin uses several languages in *The Dispossessed*: lotic, the language of the privileged class of A-lo, is contrasted with Niotic, spoken between members of the under-class, but not to or between the privileged class. While Le Guin is somewhat dismissive of Niotic as a full language, Bruhn (2005) argues convincingly that it has an identifiably different grammar, and could be counted as a separate language. There are also indications of other dialects and languages (including Terran), but most of the linguistic work in the book is devoted to Pravic.

³ Ursula K. Le Guin website FAQ page, http://www.ursulakleguin.com/FAQ.html#BookOrder.

⁴ Le Guin refers to Anarres (and Urras) as both a moon and a planet. Anarres is the smaller of two worlds orbiting each other in what astronomers refer to as a dual planet system (the larger world being Urras). The dual planet system is in turn orbiting the star, Tau Ceti.

Le Guin adopts a linguistically relativist approach to Pravic. She describes the language as artificially designed by an individual called Farigv, who set out to create an anarchistic language free of non-anarchistic ideas⁵. Although Le Guin gives very few grammatical details, she indicates that it is difficult to express certain concepts in Pravic – particularly ownership. Other aspects, such as self-promotion, seem to be pragmatically discouraged, and Le Guin indicates that possessive pronouns are possible but very unusual:

The singular forms of the possessive pronoun in Pravic were used mostly for emphasis; idiom avoided them. Little children might say "my mother," but very soon they learned to say "the mother." Instead of "my hand hurts," it was "the hand hurts me," and so on; to say "this one is mine and that's yours" in Pravic, one said. "I use this one and you use that" Mitis's statement, "You will be his man," had a strange sound to it. Shevek looked at her blankly.

The Dispossessed, ch2, p55.

Farigy's, and therefore presumably Le Guin's, view seems to be that the language used affects the social culture, but the culture also needs to impose itself upon the language to ensure the two remain in harmony. This Anarresti approach to Pravic contrasts with the languages of A-lo, where the class system has generated two chaotic languages which are drifting apart. While the relativist approach to linguistics has been out of favour among generative linguists since the early 1970s (e.g. Chomsky, 1973), recent research has provided evidence that the link between language features and cultural features is more intimate that the generativists suggest (e.g. Boroditsky et al, 2003).

One isolated fact that is impossible to trace back to the book – or to Ursula Le Guin – is that *pravic* means *rights* in Bosnian, Croatian, Serbian and Slovenian. We cannot know if this is deliberate, and I can find no definitive link between Le Guin and former Yugoslavia. However, another of her books, *Orsinian Tales*, (written before but published after *The Dispossessed*) includes a story, *Brothers and Sisters*, which has lexical and geographic parallels to the Adriatic coast of former Yugoslavia (Bittner, 1978). There are also similarities between the role of Yugoslavia as a neutral state between NATO and the Warsaw Pact, and the distancing of Anarres from both the capitalist economy of the Urran state of A-lo and the centrally planned economy of Thu. If not deliberate, then the naming of Pravic is certainly a fortuitous coincidence.

About the Project

The Dispossessed has inspired several academic analyses, which have not been universally endorsed by the author. Indeed, Le Guin (2005) says, of the academic habit of analysing fiction as "a rational presentation of ideas":

In reaction to it, I find myself talking as if intellect had nothing to do with novel writing or novel reading, speaking of composition as a pure trance state, and asserting that all I seek when writing is to allow my unconscious mind to control the course of the story, using rational thought only to reality check when revising.

⁵ The Dispossessed, ch8, p197.

All this is perfectly true, but it's only half the picture. It's because the other half of the picture is so often the only one shown and discussed that I counterreact to the point of sounding woowoo.

Le Guin, 2005, p305.

It is with this in mind that the artists Onkar Kular and Noam Toran have approached their project, *Night School on Anarres*: the task they have set themselves is to give practical (but not necessarily rational) shape to the ideas in *The Dispossessed* while preserving the authorial magic of the book as literature. The project is therefore about providing a space where anarchistic approaches to learning and teaching can be explored. The designed environment is intended to encourage students to negotiate their own way to learning; and encourage teachers to teach towards the expressed needs of the students, and not to the teachers' expectations of the students' needs. The experiment is intended to work two ways: to discover new ways to learn, and to discover new ways to teach.

The learning sessions will focus on two types of knowledge inspired by *The Dispossessed*: How to Speak Pravic⁶, the language of Anarres; and How to Think Like an Anarresti. This second form of study is based on Pravlish, a direct transliteration of Pravic into English. Concepts like the reduction of ego, the absence of ownership, and the importance of joint enterprise can be explored using Pravlish, simply by comparing the linguistic assumptions of English with the assumptions of Pravic.

Onkar Kular and Noam Toran have already been involved in a wide range of successful art projects. Most recently they worked together on an installation for the 2013 Lisbon Architecture Triennale, a piece of Worker's Theatre depicting the imprisonment of two anarcho-syndicalists during the 1910's. Because the *Night School* project involves teaching, learning, and a constructed language, two academics are also collaborating. Dr Simon Coffey is involved in the creation of the lessons; and I am involved in the formulation of both Pravic and Pravlish. The project itself is currently still in the design stage, but the language portion is largely complete.

About Pravic – Phonology

Pravic is a constrained conlang: it has to respect the phonological, lexical and syntactical constraints placed on the language by Le Guin's commentary in the book, but within those constraints it is possible to try out various novel features. This has made the creation of Pravic an absorbing project, but it has its frustrations. Pravic is described in *The Dispossessed* as a computer-generated, logical and regular language, but some of the forms offered by Le Guin produce contradictory rules.

The first task was to establish a phonology for the language. This involved collecting all the Pravic names and other words from the text and establishing how they were

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⁶ The term Pravic is used here to represent the language being designed for the *Night School on Anarres* project. This is not intended to be a definitive form of the language, it is a particular interpretation of the concepts set out in *The Dispossessed* for this project only.

constructed. This data mining was fairly simple, and a list of 42 human names, 14 geographic names and seven other Pravic words produced an alphabet of 37 consonants and six vowels. It also produced the first contradiction: the letter Y is used both as a vowel (e.g. *Cyreen*) and as a possible consonant (e.g. *Abbenay*). An arbitrary decision was made that it should be a vowel. This, however, affected the solution to a second contradiction: there were no vowel digraphs in the human names, so how did the digraphs (e.g. *Cyreen*, *Temaenian*, *Abbenay*) get into the geographic names? The chosen arbitrary solution was that the place-names represented geographical features that were visible from Urras before Anarres was colonised – so they are non-Pravic words. When rendered into Pravic the digraphs would be sounded as two vowels with a small stop between them. This still left the problem of how the word *Abbenay* came to be a Pravic word. Rather unsatisfactorily, it was decided to treat it as a special name for a special place – the exception that proved the rule.

One final vowel problem was of my own making: I used terminator vowels to indicate word type. Despite best efforts, I found myself and others elongating the terminator vowels. It was decided to formalise this as a phonological feature of Pravic.

The consonants posed their own problems. Logically, if every letter had its own sound, and there were letters for the K sound and the S sound, what did the letter C represent? It was decided that it must have an individual sound, so the voiceless velar fricative (the /ch/ in Scottish *loch* or German *ich*) was allocated. Le Guin had also used some unusual consonant digraphs (GV, KV, KS); but, while unusual, they were pronounceable. The only remaining problem was the double consonants, which had to be phonologically differentiated from their single-letter sounds. RR was easy: R is pronounced as an American postalveolar /r/, so RR became the rhotic /r/. BB, DD, GG, MM and SS became lengthened sounds which both terminated the leading syllable and initiated the trailing syllable (e.g. *big gap, house sale*). This does mean that they cannot be used to terminate words, and only MM can be used to begin words. Other consonant digraphs (LN, RD and RZ) also cannot be used to begin words.

One final phonological feature mentioned in the book has been quietly forgotten for this project. Le Guin discusses how Anarresti human names are allocated by computer:

The five- and six-letter names issued by the central registry computer, being unique to each living individual, took the place of the numbers which a computer-using society must otherwise attach to its members. An Anarresti needed no identification but his name. The name therefore, was felt to be an important part of the self, though one no more chose it than one's nose or height.

The Dispossessed, ch8, pp209-210.

The "five- and six-letter names" rule assumes that only one consonant cluster is allowed in the name; which means that just over 1 million names are available for an

Anarresti population of 20 million⁷. Even if a more generous CVCVC model were used, allowing consonant clusters at all C positions, Pravic would require more than 90 consonant clusters to produce 20 million names with six vowels; or 20 vowel sounds to produce 20 million names with 37 consonants. With six vowels, 37 consonants, and a CVCVC name form, just over 1.8 million names are possible. Three syllable names would easily solve the problem (over 400 million names), but that is not what Le Guin gave us. The naming problem has therefore been treated as insoluble for this project, and quietly forgotten.

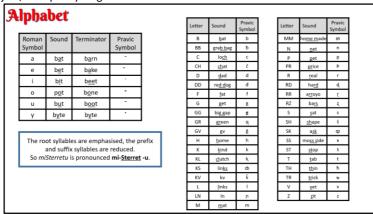


Figure 1: The Pravic alphabet

About Pravic – Making Words

As Pravic is supposed to have been defined in large part by computer8, the construction of words has been kept simple and logical. For this project, Pravic has been designed as a synthetic-fusional language, consisting of noun root words with derivational prefixing morphemes and mostly inflectional suffixing morphemes. The roots are indicated with capital letters on their first consonant cluster.

The final suffix of a word also indicates the word type: no vowel indicates a singular noun, -i indicates a plural noun; -a, -e or -o indicate a verb; -y indicates an adjective; and -u an adverb. Sentential words and conjunctions also have no suffix, like singular nouns; but sentential words stand alone, while conjunctions are a small, closed set – both are easily recognised.

To give an example, the root meaning of **Pon** is an existing or real thing. Adding -i makes it a plural (Poni: existing things, real things) Adding -a, -e or -o makes a verb (Pona, Pone, Pono: was, is, will be). Adding a -y makes an adjective (Pony: existing, real), while adding -u makes an adverb (Ponu: existingly, in a real way). Pon can also be used as a sentential word, meaning something like "This is real" or "True!"

⁷ The Dispossessed, ch2, p43.

⁸ The Dispossessed, ch8, p197.

There are several prefixes available in Pravic, most of which can be applied to any word type. However, one prefix, a-, the definite article, applies only to nouns. Of the others, there are negating prefixes (ma-, mo- and mi-, reflecting different types of negation); adpositional prefixes, which usually apply to nouns, but can be associated with verbs to create phrasal forms (e.g. *John put on the coat* ⇒ **the-coat was-put-on-by John** as well as **the-coat was-put on-John**), and can be applied to qualifiers, too; number prefixes; and a marker for foreign words. The order of affixes is fixed, and the construction of Pravic words is summarised in figure 2.

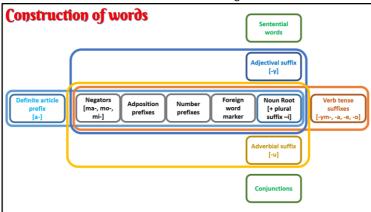


Figure 2: The construction of Pravic words

About Pravic – Verbs and Passivisation

One of the particular features of Pravic is the semantic formation of verbs. Because Pravic is intended to emphasise the action and outcome over the actor, an experiment was tried: could the language work with passivized verbs? This means that the grammatical subject is usually the logical object, and the grammatical object is the logical subject. Early experiments showed that this was a possibility. Of the twelve systemic-functional verbal processes (having attribute, having identity, symbolizing, saying, thinking, feeling, seeing, behaving, doing to, creating or changing, happening, and existing — Halliday & Matthiessen, 2004), only *happening* and *existing* do not passivize in the usual way — the first because it already has a passive mood (things happen to people), and the second because it is logically reversible (A is B is the commonly same as B is A). These two forms do not need to be passive in Pravic, although pragmatic considerations mean that having a person as the grammatical subject should only happen when the grammatical object is also a person. So, for example, Pravic would say *a-father is Tom* and *the-outcome was-affected-by Tom*, rather than *Tom is the father* and *Tom affected the outcome*.

Passivisation means that Pravic constructs should be seen grammatically as SVIO forms, and logically as OVIS: {the-book [grammatical Subject/logical Object]} {was-put-by [passivized Verb]} {on-the-table [grammatical & logical Indirect object]} {John

[grammatical Object/logical Subject]}. This has implications for Pravic as a way of thinking: passivisation reduces the role of the actor (logical subject) in an utterance, thematising instead the patient (logical object). Put simply, Pravic draws attention to outcomes rather than causes. Ditransitives, therefore, don't really exist: John offered Mary a cake reduces to the same Pravic form as John offered a cake to Mary: a-cake was-offered-by to-Mary John. Like English, passivisation does allow one-argument forms, so meetings were held translates to meetings were-held-[by]. There is, however, an explicit indication of a missing actor, an-unknown-person/thing, which seems to be implicit or unnoticed most of the time in English. In Pravic, passivisation reduces the role of the actor, it does not forgive the actor for the action.

About Pravic – Making Sentences

Word order is important in Pravic and is largely fixed: adjectives directly follow the noun they qualify, and adverbs directly follow verbs as qualifiers. Adverbs do not have any roles other than as verb qualifiers; they do not qualify adjectives or nouns, or perform any of the many other functions they have in English. They can, however, stand alone as sentential words. A noun can be followed by unlimited adjectives, and a verb by unlimited adverbs. Pragmatically, however, this is seen as egoizing and is discouraged.

A number of sentential forms are possible in Pravic, but (apart from sentential words) most have at least two arguments. The English one-argument (intransitive) form is possible but uncommon; a sentence like *John stopped* is usually rendered as *the-known-person* or *the-self-person was-stopped-by John*.

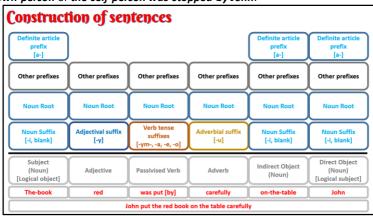


Figure 3 – A typical Pravic sentence form.

In Pravic: aPilil Romy SHorda PRemu atiZammen goCHon

The usual Pravic sentence has a three-argument SVIO grammatical form (OVIS logical form), but two-argument SVO (OVS) and SVI (OVI) forms, and one-argument SV (OV) forms, are also used. Four or more arguments with more than one indirect object are also possible, but they are uncommon. As word order is fixed and the terminating

vowel indicates word type, it is easy to find your way around a Pravic sentence, and the structure of a typical sentence is given in figure 3. The words on the diagram are formed vertically, and the sentence is formed horizontally. Once passivisation is understood, the sentence order is quite Englishlike.

About Pravic – Other Grammatical Features

As well as passivised verbs, Pravic has been designed with other grammatical features to meet the pragmatic needs of the Anarresti anarchistic culture. The most important of these in the lack of full pronouns: instead of pronominalisation reflecting the three voices of a linguistic transaction (the first person, the sender; the second person, the receiver; and the third person, the referenced), Pravic has pseudo-pronouns which reflect the nominal roles of the three voices (the speaker or writer; the listener or reader; and the known or unknown object of discussion). Using these nominal forms instead of pronouns affects the language in several ways. First, possessives are difficult: my X has to be rendered as the X of the speaker, and the sentence my hand hurts would have to be recast as a-speaker is-hurt-by of-the-speaker the-hand. It's much simpler to forget possession and use a-speaker is-hurt-by the-hand. However, even this thematising of the speaker is pragmatically unusual in Pravic, so depersonalised forms like a-pain is-caused-by the-hand tend to be used. This usage preserves the spirit if not the grammatically exact form discussed in the quote given above on page 4. Mitis' statement, you will be his man, translates as the-listener willbe of-Sabul the-known-thing - note "thing", and not "person".

A second effect of nominal forms is that reflexives work differently. While I see myself can be rendered as **a-speaker is-seen-by the-speaker**, it is easier to refer by name, **John is-seen-by John**, or by using a third-person proxy, **the-known-person is-seen-by John**. There is also a word, **the-self-person**, which indicates that the actor and patient in the sentence are the same thing. So **the-self-person is-seen-by John** and **a-self-person is-seen-by the-speaker** are both acceptable reflexive forms.

Another feature of the Pravic pseudo-pronouns is their range. The third person is not gendered, but it is divided into living and non-living things, and into known and unknown things. The first person plural is also unusual, being subdivided into five forms: the sender and receiver; the sender, receiver and others; the sender and another who is not the receiver; the sender and others but not the receiver; and everyone. These extra pseudo-pronouns give deictic reference a greater precision than is available in English.

There are some other, minor, grammatical features of Pravic which should be commented on. The first is the use of the Northern English deictic of *yon*, as well as *here* and *there*. This distinction is intended to reflect the three kinds of relationship that seem to occur on Anarres: physically and emotionally close (*here*); physically close but emotionally more distant (*there*); and physically distant but emotionally close (*yon*). This is, however, a pragmatic consideration imposed by the language designer, based on relationships in the book; it has no grammatical justification.

Negatives are another area where a three-way split is used; but in this case it is tied to Popper's three-world theory (1967). What continues to exist even in the absence of humans constitutes Popper's World 1 (Actuality); that which exists only inside human heads is World 2 (Virtuality); and that which has actual existence without humans but has meaning only because of humans is World 3 (Reality). The Pravic negatives reflect this: *mi*- (the strongest negator) indicates a revision of actuality; *mo*-, a revision of reality; and *ma*- (the weakest negator), a revision of virtuality. This gives Pravic both a mitigable but honest way to disagree, and a way to indicate whether the disagreement is of fact, of interpretation, or of opinion.

About Praylish

Pravlish is the name used in the project for Pravic expressions rendered directly into English words — although not necessarily into good English grammar. This interlanguage model was originally developed to allow the *Making of Language* students to "show their working" in their translations. They were encouraged to produce three-column translations — English, an English interlanguage, and their own language. This made their translations transparent and easier to mark. Although this three-column format was not enforced for the first year of the module, it has proved so effective that it will be part of the marking criteria in future years.

Pravlish as an interlanguage has also turned out to be a key feature of the *Night School* project. When the other members of the *Night School* team saw how it worked, they realised that it had potential as a teaching tool. Hence the **How to Think Like an Anarresti** sessions. Examples of Pravlish are given in this paper in bold italics, and an example of the three-column translation method is given in the appendix.

Conclusion

This paper has looked at the why and how for the production of a new conlang, Pravic, which is required as a component in the art project, *Night School on Anarres*. The conlang therefore does have a real purpose – at least, until mid-September 2016. While this exercise could be seen as a vanity project (or egoizing, as they would say on Anarres), it has also provided an opportunity to try out certain features of language which, while not necessarily rejected by linguistic theory, do still pose challenges for what some linguists consider possible or impossible in language.

The real test for this version of Pravic lies ahead, when a classroom of real people will be asking about the choices made in the design, and maybe questioning those choices and offering alternatives. Hopefully the coda to this paper, to be written in Autumn 2016, will report a positive reception; but, positive or not, the completed experiment should tell us important things about conlang design, publication and use.

Acknowledgements

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Appendix: The Three-Column Translation Method

English	Pravlish	Pravic
"We aren't, except	"A-mother and the-child are-	"Mamme Tyg aCHavok
biologically, mother and	not us. Yet a-biological-	miPone Seksot. Sheb Lalav
son, of course."	parent and the-child are us."	Tyg aCHavok Pone Seksot."
She had regained her faint	A-smile small had-been-	PRekvem Piny raSHugvada
smile.	found-again-by the-known-	aTRuv.
	person.	
"You don't remember me,	"The-known-person is-not-	"aTRuv miraVogyra aSeln,
and the baby I remember	remembered-by the-listener,	Tyg aSeln Nemady miPone
isn't this man of twenty.	and the-listener twentying is-	aPivok raVogyry.
	not the-baby remembered.	
All that is time past,	The-known-thing is a-gone-	aTRum Pone Dep Tyg
irrelevant.	thing and a-not-now-thing.	maMurr.
But we are brother and	But comrades are now us.	Sed aMMari Pone Murru
sister, here and now.		Seksot.
Which is what really	And the-important-thing is	Tyg aDissig Pone aDupel."
matters, isn't it?"	the-this-thing."	

The Dispossessed, ch4, p109: Rulag speaking to Shevek.