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Linguistic Games: Implications for (Socio) Linguistics

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0. Introduction

Speech play defines a broad area of language usage in which linguistic forms at any level are purposely manipulated (1). The play involved need not necessarily be humorous; for example, serious messages are communicated in the linguistic games described in this paper. It is the task of the investigator to analyze and describe not only the linguistic properties of speech play, but the precise social functions as well. Linguistic games are a type or subclass of linguistic play. They typically involve the creation of a linguistic code based on the language usually used by the speakers or players of the game. This code is thus a disguised or concealed version (2) of a particular linguistic variety and is derived from it by a series of well defined rules. But linguistic games are also used by players to transfer novel messages to one another (as distinct from some other types of linguistic play, for example counting-out rhymes, which are not used to transfer new messages).

Although linguistic games have attracted the attention of folklorists, they have not been a central concern of linguists. Halle (1962) uses *pig latin* to argue for the necessity of ordered rules in phonological descriptions. Conklin (1956, 1959) and Haas (1957, 1969) describe linguistic games. Burling (1970) argues that investigation of linguistic games would provide data for the analysis of the linguistic structures on which they are based. The folklorists Opie and Opie (1959) and Berkovits (1970) list linguistic games played by English speaking children. In this paper, I will discuss linguistic games from three points of view: 1. their inherent properties: the kinds of linguistic rules that are involved in the generation of games. 2. the relevance of linguistic games to theoretical linguistic concerns: both within particular languages and concerning language in general. 3. what linguistic games reveal

about the ethnography of speaking and sociolinguistic patterns of a community.

1.1.

Since a linguistic game is a coded version of a particular variety of a language, the rules for each game are derivations from that variety to the games forms. I will illustrate the types of phenomena involved with examples of games from three different speech communities.

1.1.1.

Five Cuna linguistic games (3).

1.1.1.1.

sorsik summakke or *arepecunmakke* (4) 'talking backwards'. This game consists of taking the first syllable of a word and placing it at the end of the word. The following rule generates the forms used:

$$\#S_1 S_2 S_3 \dots S_n\# \rightarrow \#S_2 S_3 \dots S_n S_1\#$$

where S signifies syllable and # signifies word boundary.

Some examples are (5):

<i>osi</i> 'pineapple'	>	<i>sio</i>
<i>ope</i> 'to bathe'	>	<i>peo</i>
<i>takke</i> 'to see'	>	<i>ketak</i>
<i>take</i> 'to come'	>	<i>keta</i>
<i>ipya</i> 'eye'	>	<i>yaip</i>
<i>uwaya</i> 'ear'	>	<i>wayau</i>

The rule for this first game is written above in terms of syllables; and the game is indeed based on the syllable. It seems interesting to consider another possibility for the description of the game however. Cuna words have the following properties with regard to permitted consonant clusters. Word initially and word finally a single consonant only can occur. Word internally, i.e., intervocalically, clusters of two consonants, but no more than two, can occur. Canonic shapes for Cuna words then are:

VC	:	<i>an</i>	'I, my'
CVC	:	<i>nek</i>	'house'
VV	:	<i>ia</i>	'older brother'
CVV	:	<i>poe</i>	'to cry'
CVCV	:	<i>kape</i>	'to sleep'
CVCCV	:	<i>warpo</i>	'two pole-like objects'
CVCCVC	:	<i>sorsik</i>	'backwards'

etc.

The maximal canonic shape with regard to consonant clusters is:

#C1 V C2 C3 V C4 VCn#

It is possible to represent every Cuna word as having this maximal phonological structure if those places where consonants can potentially occur but happen not to are filled in with zeros: Ø. This would not entail a boundless or unstructured use of Ø but rather a logical one based on the canonic shape of Cuna words (6). In the following examples the Ø will be placed *in front of* single, intervocalic consonants. This will enable the proper generation of game forms in the rules to be stated below (7).

Examples:

<i>ia</i>	'older brother'	(ØiØØaØ)
<i>ope</i>	'to bathe'	(ØoØpeØ)
<i>kape</i>	'to sleep'	(kaØpeØ)
<i>uwaya</i>	'ear'	(ØuØwaØyaØ)

The rule for game 1 can now be rewritten in terms of the canonic shape of the Cuna word; i.e., in terms of a shifting of consonants and vowels and without reference to syllables.

#CIVC2C3VC4...VCn# → #C3VC4...VCnCIVC2#

Repeating the examples of the game form above with inserted zeros:

<i>osi</i>	'pineapple'	(ØoØsiØ)	>	<i>sio</i>
<i>ope</i>	'to bathe'	(ØoØpeØ)	>	<i>peo</i>
<i>takke</i>	'to see'	(takkeØ)	>	<i>ketak</i>
<i>take</i>	'to come'	(taØkeØ)	>	<i>keta</i>
<i>ipya</i>	'eye'	(ØipyaØ)	>	<i>yaip</i>
<i>uwaya</i>	'ear'	(ØuØwaØyaØ)	>	<i>wayau</i>

The resulting 'backwards' words for the most part fit the phonological canons of ordinary Cuna speech. They could be and at times actually are perfectly good words in Cuna. This gives the hearer of the game the superficial impression that the player is speaking normal Cuna.

1.1.1.2.

ottukkuar sunmakke 'concealed talking'. This game consists of inserting a sound sequence after the initial consonant-vowel sequence of each syllable. The inserted sequence consists of *pp* plus the vowel of the

preceding syllable. In terms of the canonic shape of Cuna words, the canonic shape of Cuna words, the rule for game 2 is:

$$\#CIVIC2C3V2C4 \dots Cn\# \rightarrow \#CIV1ppVIC2C3V2ppV2C4 \dots Cn\#$$

Some examples are:

<i>merki</i>	'North American'	(<i>merki</i> Ø) >	<i>mepperkippi</i>
<i>pia</i>	'where'	(<i>pi</i> ØØ <i>a</i> Ø) >	<i>pippiappa</i>
<i>ua</i>	'fish'	(Ø <i>u</i> ØØ <i>a</i> Ø) >	<i>uppuappa</i>
<i>perk*aple</i>	'all'	(<i>perk*aple</i> Ø) >	<i>pepperk*appappleppe</i>

Although the forms used in this game theoretically fit Cuna phonological canons, the constant repetition of *ppV* gives them a marked alliteration and rhyme.

1.1.1.3.

The third game has no name; it is exactly the same as the second except that the inserted sound sequence is *r* plus the vowel of the previous syllable. The rule is thus:

$$\#CIVIC2C3V2C4 \dots Cn\# \rightarrow \#CIV1rVIC2C3V2rV2C4 \dots Cn\#$$

Examples are:

<i>merki</i>	'North American'	(<i>merki</i> Ø) >	<i>mererkiri</i>
<i>pe</i>	'you'	(<i>pe</i> Ø) >	<i>pere</i>
<i>pia</i>	'where'	(<i>pi</i> ØØ <i>a</i> Ø) >	<i>piriara</i>
<i>tanikki</i>	'he's coming'	(<i>ta</i> Ø <i>nikki</i> Ø) >	<i>taranirikkiri</i>

Like those of game 2, the forms of game 3 fit Cuna phonological canons but have a marked alliteration and rhyme.

1.1.1.4.

The fourth game, which has no name, involves the prefixation of *ci*-before every syllable. Furthermore, each syllable in the source or original Cuna word receives primary stress in the game form. The rule for this game, stated in terms of syllables, is:

$$\#S1 S2 S3 \dots Sn\# \rightarrow \#ciS1 ciS2 ciS3 ciSn\#$$

or stated in terms of the canonic shape of Cuna words:

$$\#CIVC2C3VC4 \dots VCn\# \rightarrow \#ciCIVC2ciC3VC4 \dots Cn\#$$

Examples are:

<i>ina</i>	'medicine'	(ØiØnaØ)	>	<i>ciichiná</i>
<i>ai</i>	'friend'	(ØaØØiØ)	>	<i>ciáchii</i>
<i>naipe</i>	'snake'	(naØØiØpeØ)	>	<i>cináchitichipé</i>
<i>maceret</i>	'man'	(macheØret)	>	<i>cimácicécirét</i>

The forms of this game ring quite differently from ordinary, spoken Cuna, because of both the repeated *ci* and the positioning of the stressed syllables.

1.1.1.5.

The fifth game, like the first, is called *sorsik sunmakke*, although it is quite different from the first. It is the only one of the five Cuna linguistic games which is not based on the syllable. Rather it is based on the vowel (8). In this game, every vowel becomes *i*. Stated in terms of the canonic shape of Cuna words, the rule is:

$$\#CIVIC2C3V2C4 \dots Cn\# \rightarrow \#CiIC2C3iC4 \dots Cn\#$$

or, more simply, without reference to context:

$$V \rightarrow i$$

Examples are:

<i>pia</i>	'where'	>	<i>píi</i>
<i>pe</i>	'you'	>	<i>pí</i>
<i>tanikki</i>	'he's coming'	>	<i>tinikki</i>
<i>iki</i>	'how'	>	<i>iki</i>
<i>nuka</i>	'name'	>	<i>niki</i>

The forms used in this game have a strange ring to them due to the fact that *i* is the only vowel used.

1.1.2.

A complicated French linguistic game.

French backwards talk is called *langage á l'envers* 'backwards language', *parler á l'envers* 'speak backwards', or, in the code itself, *verlen* or *larper*. There are variants of this game, one of which involves a switching of syllables. Dubois et al. (1970: 65) describe this version.

In it:

<i>l'envers</i>	'backwards'	>	<i>verlen</i> (9)
<i>pédés</i>	'pederast'	>	<i>dépés</i>
<i>mari</i>	'husband'	>	<i>rima</i>
<i>copains</i>	'friends'	>	<i>painsco</i>
<i>cul</i>	'ass'	>	<i>luc</i>

Notice that French orthography plays a role in this game. The *s* of *copains*, for example, is not pronounced in ordinary French; but it is pronounced in the backwards *painsco*. Similarly with regard to the *l* of *cul*. Some function words, such as prepositions, are not affected and are deleted in the game outputs. Thus *peau de balle* 'nothing' becomes *balpeau*. This variant of the game has three rules, which operate in the following order:

1. Delete those words not to be affected.

By this rule, *peau de balle* > *peau balle*

2. Number the pairs of syllables which are to be switched.

By this rule, *peau balle* > *peau¹ balle²*

3. Switch each syllable numbered 1 with the following syllable numbered 2.

By this rule, *peau¹ balle²* > *balpeau* which is the desired game output. Another variant of this game is even more complicated. Basically, it consists of switching the initial consonants or consonant clusters of two consecutive syllables (10). *Parler* 'to speak', for example, becomes *larper*. In words of a single syllable, it is the initial and final consonants or consonant clusters of this syllable which switch. Thus:

<i>boire</i>	'drink'	>	<i>roib</i> and
<i>mec</i>	'guy'	>	<i>quem</i> .

As in the version of this game described above, certain classes of words are not affected; in this version, however, they still appear in the game outputs. Thus *je bouffe pas* (11) 'I'm not eating' > *je foub pas*, only the verb being affected. Pronouns and definite articles are generally not affected, except when they are phonetically linked with the next form by vowel elision (*j'* and *l'*).

Thus,

	<i>le mec</i>	'the guy'	>	<i>le quem</i>
but	<i>l'école</i>	'the school'	>	<i>qu'étole</i>
	<i>je bouffe pas</i>	'I'm not eating'	>	<i>je foub pas</i>
but	<i>j' entends</i>	'I hear'	>	<i>l'enjends</i>

This variant of talking backwards requires the following ordered rules:

1. Mark all words as to whether or not they are to be affected. By this rule (using parentheses to mark unaffected words),

<i>je vois</i>	'I see'	>	(<i>je</i>) <i>vois</i>
<i>je parle</i>	'I speak'	>	(<i>je</i>) <i>parle</i>
<i>le mec</i>	'the guy'	>	(<i>le</i>) <i>mec</i>
<i>je te pissais à la raie</i>	'I pissed in your face'	>	(<i>je</i>) (<i>te</i>) <i>pissais</i> (à) (<i>la</i>) <i>raie</i>
<i>passe moi la bouteille</i>	'pass me the bottle'	>	<i>passe</i> (<i>moi</i>) (<i>la</i>) <i>bouteille</i>
<i>je te crache à la gueule</i>	'I spit in your face'	>	(<i>je</i>) (<i>te</i>) <i>crache</i> (à) (<i>la</i>) <i>gueule</i>

2. Number the initial consonant or consonant cluster of each affected word: 1 and the initial consonant or consonant cluster of the second syllable of each affected word: 2. If the affected word has only one syllable, number the terminal consonant or consonant cluster of this syllable: 2.

By this rule,

(<i>je</i>) <i>vois</i>	>	(<i>je</i>) ¹ <i>vois</i>
(<i>je</i>) <i>parle</i>	>	(<i>je</i>) ¹ <i>par</i> ² <i>le</i>
(<i>le</i>) <i>mec</i>	>	(<i>le</i>) ¹ <i>mec</i> ²
(<i>je</i>) (<i>te</i>) <i>pissais</i> (à) (<i>la</i>) <i>raie</i>	>	(<i>je</i>) (<i>te</i>) ¹ <i>pissais</i> (à) (<i>la</i>) ¹ <i>raie</i>
<i>passe</i> (<i>moi</i>) (<i>la</i>) <i>bouteille</i>	>	¹ <i>pass</i> ² (<i>moi</i>) (<i>la</i>) ¹ <i>bout</i> ² <i>eille</i>
(<i>je</i>) (<i>te</i>) <i>crache</i> (à) (<i>la</i>) <i>gueule</i>	>	(<i>je</i>) (<i>te</i>) ¹ <i>crach</i> ² (à) (<i>la</i>) ¹ <i>gueul</i> ²

3. If any affected word has only one number, erase the first set of parentheses to its left and renumber, beginning with the newly affected word (12).

By this rule

(<i>je</i>) <i>vois</i>	>	¹ <i>je</i> ¹ <i>vois</i>
(<i>je</i>) (<i>te</i>) ¹ <i>pissais</i> (à) (<i>la</i>) <i>raie</i>	>	(<i>je</i>) (<i>te</i>) ¹ <i>pissais</i> (à) ¹ <i>la</i> ² <i>raie</i>

4. Switch each consonant or consonant cluster numbered 1 with the next consonant or consonant cluster numbered 2.

By this rule,

(je) ¹ vois	>	ve jois
(je) ¹ parle	>	je larpe
(le) ¹ mec	>	le quem
(je) (te) ^{1,2} pissais (à) ¹ la ² raie	>	je te sipais à ra laie
^{1,2} passé (moi) (la) ¹ bouteille	>	sap moi la toubeille
(je) (te) ¹ crache (à) (la) ¹ gueule ²	>	je te chacre à la lueugue

1.1.3.

Javanese linguistic games of increasing complexity. The following Javanese linguistic games are described by Sadtono (1971).

1.1.3.1.

In the first game, every vowel of the source word is followed by a syllable which consists of *f* plus a repetition of the vowel. The rule for this game is as follows:

$$V \rightarrow VfV$$

An example is

<i>aku arep tuku klambi</i>	'I want to buy a dress'
>	<i>afakufu afaresep tufukufu klafambifi</i>

This game is actually based on the syllable, as are many linguistic games. Here, every open syllable is followed by *f* plus the vowel which is the nucleus of the syllable. Every closed syllable inserts such a new syllable (eg. *fV*) before its final, terminal consonant.

1.1.3.2.

The second game is identical to the first, except that the inserted syllable begins with *p*.

The rule is thus:

$$V \rightarrow VpV$$

Example:

<i>kikik anak nakal</i>	'kikik is a naughty boy'
>	<i>kipikipik apanapak napakapal</i>

1.1.3.3.

The third game is similar to the first two but a bit more complicated. Analogous to the first two games, each non-initial syllable of each word adds *s* plus a repetition of the vowel which is the nucleus of the syllable. The first syllable of the word is treated as follows. If the syllable is open, it is closed with *s*. If the syllable is closed, the closing consonant is replaced by *s*, the replaced consonant in turn becoming the initial consonant of the following syllable, sometimes preceding the original initial consonant of this syllable, sometimes replacing it. This game is probably best described in terms of two rules, which can be stated as follows.

1. $\#CV - CVC \dots \# \rightarrow \#CVs - CVsVC \dots \#$

where - signifies syllable boundary and # signifies word boundary.

2. $\#CVC^o - C^oVC \dots \# \rightarrow \#CVs - C(C^o)sVC \dots \#$

where parentheses signify that C^o is sometimes deleted.

Example:

aku arep tuku klambi karo sepatu kembaran karo bocah akeh
 'I want to buy a dress and a pair of shoes which are
 identical with those of my friends.'

>

askusu asresep tuskusu klasmbisi kasroso sespasatusu
kesmbasarasan kasroso boscasah askeseh

The two rules are not ordered with respect to one another but rather deal with two different possibilities; the first accounts for initial syllables which are open, the second accounts for initial syllables which are closed. The two rules could of course be conflated into a single one; but in any case, this game involves more complicated operations than the first two described.

1.1.3.4.

In the fourth game, every syllable of every word except the initial one is deleted. Furthermore every syllable in the game output must be closed; this is done by retaining the initial consonant of the second syllable of the source word, if needed.

The two rules for this game are.

1. $\#CIVI - C2V2C3 \dots \# \rightarrow \#CIVIC2 \dots \#$
2. $\#CIVIC2 - C3V2C4 \dots \# \rightarrow \#CIVIC2 \dots \#$

Example:

aku arep lunqo 'I am going to go' > *ak ar lunq*

1.1.3.5.

The fifth game involves a switching of the kind already encountered in one version of French backwards talk. The consonant or consonant cluster (or Ø) which begins each word is switched with the consonant or consonant cluster which begins the second syllable of the same word.

The rule for this game is thus

$$\#CIVCC2V \dots \# \rightarrow \#C2VCCIV \dots \#$$

where C signifies consonant or consonant cluster.

Examples:

<i>nduwe</i>	'have'	>	<i>wunde</i>
<i>rupiah</i>	'rupees'	>	<i>puriah</i>

1.1.3.6.

The sixth game is based on the Javanese word; in it every word is pronounced completely backwards. The rule is

$$\#CIVIC2C3V2C4 \dots Cn\# \rightarrow \#Cn \dots C4V2C3C2V1C1\#$$

Example:

<i>bocah iku dolanan asu</i>	'The boy is playing with a dog.'
>	<i>hacob uki nanalod usa</i>

1.1.3.7.

The seventh game is based on the order of the Javanese consonant alphabet. This alphabet is as follows:

1.h	2.d	3.p	4.m	5.n	6.t	7.d	8.g	9.c	10.s	11.j
12.b	13.r	14.w	15.y	16.l	17.k	18.l	19.ñ	20.ŋ		

The game associates with every consonant an equivalent derived by superimposing the alphabet in reverse order onto the normal order. Game equivalent consonants are thus

h:ŋ	d:ñ	p:l	m:k	n:t	t:y	d:w	g:r	c:b	s:j
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In the game, vowels are unaltered and all consonants are replaced by their alphabetically derived equivalents.

Example:

<i>aku gawe layan</i>	'I'm writing a letter'	>	<i>ŋamu raðe patan</i> (13)
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At first glance, this game seems extremely complicated; in fact, so complicated that it is hard to believe that individuals actually speak it rapidly. However, there are several facilitating factors. First, the alphabet contains twenty letters; therefore only ten interchanges must be learned. The second ten are merely the reverse of the first ten. Second, if all twenty sounds are grouped into two classes:

- 1) all non-nasal stops
- 2) all other sounds: nasal stops, semivowels, affricates, fricatives, and r sound

then eight of the ten interchanges involve exchanges from class 1) to class 2) or vice versa. The exceptions are *s:j* and *h;ŋ*, both within class 2). These involve however shifts from fricative to homorganic voiced affricate and from fricative to almost homorganic nasal stop. The remaining eight interchanges involve some homorganic or almost homorganic shifts and some not at all homorganic shifts. Finally, all but three interchanges (*d:ñ* *d:w* *g:r*) involve shifts in voicing. Thus, although this is undoubtedly an intriguingly complicated linguistic game, there are nonetheless some regular patterns which facilitate its learning.

1.2.

All of the linguistic games described here are rule governed in the precise sense that this notion is currently used in generative phonology. The rules operate on a particular phonological or phonetic input, changing the order or sequencing of sounds and/or their nature (constituent features), thereby producing new outputs. Furthermore, the order in which the rules apply may be crucial. (For a discussion of generative phonological rules and their occurrence in linguistic games, see Halle, 1962 and Haas, 1960).

Haas (1967) provides a taxonomy of the mechanisms or rules generally involved in linguistic games. These are addition, subtraction, reversal, and substitution. Of the Cuna games, game 1 illustrates reversal, games 2, 3, and 4, addition; and game 5, substitution. French backwards talk is a reversal game. Javanese games 1 and 2 involve addition; game 3, addition and subtraction; game 4, subtraction; games 5 and 6, reversal; and game 7, substitution. But other phenomena are also involved in these games. In French backwards talk, for example, there is first a rule which marks which categories of words are to be affected by the later reversal rule and which not. It is interesting that this rule must operate after the ordinary French rules of elision. The seventh Javanese game depends on knowledge of the Javanese alphabet and an ability to

associate with each consonant in this alphabet another consonant, derived by superimposing a backwards order of the alphabet onto the normal order. The substitution rule applies after the alphabetic operation. That the orthographic representation of a word (rather than its pronunciation) sometimes plays a role in linguistic games is demonstrated by the first version of French backwards talk described above. (See also Foley, 1971; Johnson, 1971; and Johnson, 1971).

Although the forms that the rules for linguistic games take are very much like those written by generative phonologists in their descriptions of language (whether synchronic or diachronic), the actual substance or details of the rules are unlike that typically found in ordinary language (again, viewed from either a synchronic or a diachronic perspective). That is, there are no documented cases of the syllables of all or most words being reversed or of the same sound sequence being prefixed to all or most syllables of words -- as ordinary linguistic processes. The explanation for this difference between ordinary linguistic processes and those that occur in linguistic games can not be given in purely linguistic terms. Rather it has to do with one of the common social functions of linguistic games: concealment. Most ordinary phonological rules (eg. the voicing of intervocalic consonants or the merger of two similar vowels) do not result in a new language so different from the original as to be difficult for native speakers to understand. On the other hand, most linguistic games are unintelligible to persons who do not know them (even if they are native speakers of the source language). Thus one major linguistic task of a linguistic game is to produce distinct and hard to recognize forms by means of one or two relatively simple rules. This is done most efficiently by making use of the rule structure or rule format of ordinary language but at the same time filling in this structure or format with possibilities not exploited in ordinary language. This is a particularly striking case of creativity in language use, especially when one considers that the games in question are usually played by relatively young children (14). It is also interesting that although the games typically involve only one, two, or three rules, these rules can be somewhat complex, as is illustrated above in the French and Javanese examples.

2.

Linguistic games are relevant to the concerns of theoretical linguists for a number of reasons. First, they are a valuable source of data crucial to the solution of such basic problems as the structure of syllables, the abstract representation of sounds, and the grouping of morphemes and words into classes. Many of these games are based on the

syllable. The permutation of syllables or the insertion of a sound sequence at the boundaries of syllables aids the analyst of a particular language to arrive at a definition of this basic phonological unit. For example, the Cuna games discussed above demonstrate that the Cuna syllable has a basic *CVC* structure; and that words of the shape *CVCVC* are always syllabically *CVC-CVC*; and words of the shape *CVCVC, CV-CVC*. Thus in Cuna talking backwards, which moves the first syllable of every word to the end of the word, *ipya* 'eye' becomes *yaip* and *ome* 'woman' become *meo*.

By throwing sounds into new environments (in which they usually undergo the ordinary morphophonemic rules of the particular language)(15) the games provide rich evidence of the kinds of patterned phonetic alternation used by linguists to posit abstract phonemes or morphophonemes. The Cuna word [*in · a*] 'chicha', when pronounced backwards, becomes *nain*. We have here evidence for the argument that a lengthened *n* at the surface phonetic level is represented by two short *n*: *nn*, at a more abstract phonological level. At this abstract level [*in · a*] is represented *inna*.

Games, such as French backwards talk, which affect certain words in sentences and not others, effectively group all words into two classes. It is interesting that in the French game the affected words are MAJOR or CONTENT words : nouns, adjectives, verbs, and adverbs; while the unaffected words are relatively MINOR or FUNCTION words : articles and prepositions, but also pronouns, which straddle the content-function fence. The distinction between major and minor classes of words is of course one that has been made by many theoretical linguists. (See, for example, Weinreich, 1966:432; Lyons, 1968:435-442 discusses the related question of grammatical vs. lexical meaning).

Linguistic games also provide insights concerning the psychological reality of linguistic descriptions, a subject which is of increasing interest to linguists and psychologists. Much of the discussion of this issue has tended towards a circular trap. The most popular view is probably that the best or in some sense the most economical linguistic description *must* be the one employed by native speakers. (See for example Chomsky, 1964, 1965). This argument must be accepted or rejected on faith. Linguistic games, on the other hand, in which native speakers manipulate such linguistic units as syllables and abstract phoneme, offer direct evidence of how the speakers themselves actually represent these units. It is rather interesting then that careful investigation of variation in the playing of linguistic games strongly suggests the possibility that there is a corresponding variation in native speaker

linguistic models : from the perspective of both the individual speaker and the speech community at large. Thus, for example, there is in Cuna a surface distinction between voiceless and voiced stops intervocalically: [*dage*] 'to come'; [*dake*] 'to see'. In talking backwards (game 1 above), all speakers say *geda* for [*dage*]; but for [*dake*] some speakers say *gedag* and others *geda* or *keda*. It is as if some speakers represent voiceless stops as underlying or abstract sequences of two identical voiced stops, while others do not. The first model is probably a more efficient and economical one from the point of view of Cuna grammar as a whole; both models, however, are descriptively adequate (16). A particularly interesting example of the existence of variation in underlying models of linguistic structure is the following, revealed by an investigation of the playing of two games. The Cuna word for 'mangrove' is [*aili*]. It does not alternate with any other form. There are three possible underlying phonological representations (written here with dashes to indicate syllable boundaries):

- (1) *ak-li* (since *k* becomes *i* before any consonant other than *k*).
- (2) *ai-li*
- (3) *a-i-li*

In *sorsik summakke* (game 1 above) there are two ways of saying [*aili*]: *liak* (which supports solution (1) above) and *liai* (which supports solution (2)). In game 4 there are also two ways of saying [*aili*]: *ciaicili* (which supports solutions (1) or (2)) and *ciaciicili* (which supports solution (3)).

In French backwards talk, there is variation with regard to which words are affected and which are not. For all speakers, nouns, verbs, adjectives, and adverbs are always affected; articles (17), prepositions, object pronouns, emphatic pronouns, and the negative particle *pas* are typically not affected. An interesting category of words in this game includes subject pronouns, possessive pronouns, and demonstrative adjectives. For some speakers these are affected; for others, they are not. Furthermore the same speaker will sometimes treat them as affected, sometimes as not. Thus, *ce conard* 'that idiot' becomes either *ce nocard* or *que sonard*. *Môn pinard* 'my booze' becomes either *pon minard* or *mon nipard*. Thus, at least as far as this game is concerned, subject pronouns, possessive pronouns, and demonstrative adjectives straddle the fence between the major and the minor word classes. Linguists have alternated between treating these morphemes as prefixes (thus more grammatical, functional, or minor) and as separate, independent words (thus more content or major); it is not surprising that the same variation exists in the minds of native speakers.

The data from linguistic games thus enables us to reformulate the problem of psychological reality in a way that is socially more sensible. The *sociolinguistic* reformulation asks, for a particular speech community: what are the areas and aspects of linguistic structure for which there is variation in native speaker models. One suspects that it is in aspects of rather superficial linguistic structure (such as those made use of in linguistic games) that there is such variation and in aspects of deeper structure that there is not.

3.

Any investigation of linguistic games should pay attention to the social functions that the games serve. It is interesting that all of the games discussed here are derived from an extremely colloquial variety within the repertoire of linguistic varieties in use in the speech community. Thus no Cuna game forms are derived from words used in the formal historical-political-religious or curing varieties. (See Sherzer and Sherzer (in press) for a discussion of the various linguistic varieties in use among the Cuna). The Javanese games are played at the *ngoko* level, the lowest level of Javanese varieties on the scale of formality. (See Geertz, 1968 for a description of Javanese linguistic varieties). French talking backwards is based on the extremely colloquial slang of French adolescents. When used by French gangs, many of the source words are in an argot limited to the particular gang. Thus a double code is involved - in order to decipher what is said in the game, one must first move back up the game derivation rules to the source word and then translate the source word from the special gang argot into standard French.

A common function of linguistic games is concealment and a corresponding delimitation of social groups and subgroups. That is, a major and public means of demonstrating that one is a member of a particular group is the fluent use of its linguistic game. Children often use such games to keep secrets from other children and at times from their parents. Linguistic games may also play a role in language learning. Some Thai linguistic games are used by Thai children to help them learn new words and generally improve their competence in speaking. (See Haas, 1957; Palakornkul, 1971). Another possible social function is pure fun. For the Cuna, the primary purpose of the linguistic games described above is not concealment. They are not used by certain groups of children to keep secrets from others. Rather, the games seem to be a form of linguistic play for play's sake.

Finally, linguistic games provide insights into general patterns and themes of speech use and of the role of speaking in the community.

Parisian youth gangs are extremely concerned with publicly marking their distinctness as a group. (See Monod, 1968) A major way of doing this is through language : by means of both a special and elaborate argot and the frequent use of the complicated talking backwards games, often based on the argot. For the Cuna, play and creativity with language are highly valued. With regard to adults, this play and creativity includes expressively altering Cuna sounds, introducing non-Cuna sounds, making use of foreign words, altering the names of people and things, developing metaphors, and inserting relevant jokes and anecdotes (18). Although adults do not play the linguistic games and usually claim not to understand them, they generally consider them acceptable behavior for children and seem amused when they are played. It is as if they recognized them to be a children's variety of Cuna linguistic play. Some traditional ceremonial leaders are against the playing of such games, however, especially if they think that obscene words are being concealed in them (19).

I have argued here that linguistic games, although interesting in and for themselves, also have relevance for various issues that students of language confront today : the nature of linguistic rules, the psychological and sociological reality of linguistic descriptions, and the ethnographic patterns involved in speech use.

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FOOTNOTES

(1) Speech play thus defined can be understood in terms of what Jakobson (1960) calls the poetic function of language. For Jakobson, this poetic function (which occurs in many verbal genres in addition to poetry) involves the projection of paradigmatic linguistic axes onto syntagmatic axes, resulting in a focus, foregrounding, and/or manipulation of any aspect of language (phonetics, lexicon, syntax, etc.) for its own sake. In speech play, the poetic function of language becomes so predominant that one might say it is on display. There is an interesting relationship between speech play and verbal art. Speech play is one possible manifestation (but one only) of verbal art. But it also occurs in speech usages which particular societies may not consider to be verbal art, for example, linguistic games. For further discussion of the definition of speech play and its relationship to verbal art, see the introduction to this volume of B. Kirshenblatt - Gimblett, *Speech Play on Display* (in the press) and the paper by Sanches and Kirshenblatt-Gimblett.

(2) I use the term linguistic game rather than «disguised speech» (see Haas, 1967, 1969) because I do not want to imply that concealment is the *only* function of these speech usages.

(3) The Cuna data for this paper were gathered on the islands of Mulatupu and Niatupu in San Blas, Panama. The research was supported by NSF Grant GU-1598 to the University of Texas.

(4) *arepecunmakke* is derived from Spanish *al revés* 'backwards' plus Cuna *sunmakke* 'to speak'. This game and especially its implications for sociolinguistic theory is investigated in greater detail in Sherzer (1970).

(5) The examples are according to one of the various ways of playing this game. (See Sherzer, 1970). They are represented in a more phonological than phonetic form. Cuna phonemes are *p, t, k, k', s, m, n, w, y, r, l, a, e, i, o, u, c* results from a cluster of *s* plus *s*. Stress usually falls on the penultimate syllable of the word.

(6) I suggest then another use of nothing, following Hoenigswald (1959).

(7) The placing of the \emptyset is of course directly related to the fact that single, intervocalic consonants serve as the first consonant of the following syllable and not the final consonant of the preceding syllable.

(8) It is important to note, however, the following relationship between Cuna vowels and syllables. Each short vowel forms the nucleus of a single syllable. Long

vowels are phonologically two vowels and are two syllables in length. There is variation within the Cuna speech community, however, in the treatment of long vowels. For a discussion of this variation see Sherzer (1970: 346-347).

(9) All French game forms are written here in normal French orthography and the ordinary orthographic to pronunciation canons can be followed in reading them.

(10) The examples which appear here were collected by the author in August, 1970.

(11) This game is derived from an extremely colloquial variety of French. (See discussion below.) Thus the rather formal negative *ne* is not involved.

(12) Notice that the rules for this game are then cyclic in the sense that this notion is currently used in transformational grammar. I am grateful to Lawrence Foley for calling this fact to my attention.

(13) In Javanese orthography *aku* 'I' is written *haku*. Therefore in this game *aku* > *namu*.

(14) This kind of linguistic creativity is not discussed by Chomsky, who wants to limit the concept of creativity to the ability to produce novel sentences. For a more creative approach to the problem of creativity in language use, see Hymes (1971: 52-59).

(15) But see Haas (1969: 283) for a Burmese game in which no morphophonemic rules apply after the application of the game rule.

(16) See Sherzer (1970) for additional examples of variation in the playing of this game.

(17) Notice though that according to the rules for the game articles *are* affected when they are linked by elision to the noun or when the noun consists of a single, open syllable. I am talking here then about the initial marking rule.

(18) One way to classify Cuna genres of speaking is according to the types and degrees of linguistic creativity and play (both serious and humorous) involved in them.

(19) At the traditional congress held in Mulatupu-Sasardi in June, 1970, a visiting official from an extremely traditional village complained publicly about one of the games and claimed that it was obscene. Since then I have at times heard Mulatupu parents stopping their children from playing the games, reminding them that village officials had declared them obscene. The traditional leaders might have been struck by a similarity between linguistic games and Cuna *sekreto*s. *Sekreto*s are short, charmlike utterances which are used to control objects in nature, animals, and human beings. They are considered both powerful and dangerous. Their effectiveness resides in language, by means of which the origin of the object or individual to be controlled is revealed. The language of each *sekreto* (considered obscene because it deals with sexual origins) is not comprehensible to anyone who has not learned it because it is a secret code - usually containing nonsense syllables or words from languages other than Cuna.

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 Sémiotiques auditives.
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