This paper examines spatial deixis in Chiwere (Siouan) in the framework of two theories of deixis. Denny (1978) attempts to define a set of distinctive features for spatial deixis, while Rauh (1983) uses spatial deixis as a template for organizing all deictic dimensions. Chiwere data suggest language and dimension specific expansion of both theories to include the features verteitive versus non-verteitive and location/stationary versus direction/motion. (Contains 16 references.) (Author)
Abstract: This paper examines spatial deixis in Chiwere (Siouan) in the framework of two theories of deixis. Denny (1978) attempts to define a set of distinctive features for spatial deixis, while Rauh (1983) uses spatial deixis as a template for organizing all deictic dimensions. Chiwere data suggest language and dimension specific expansion of both theories to include the features vertitive vs. non-vertitive and location/stationary vs. direction/motion.

The phenomenon of deixis presents theorists with one of the most challenging areas of cross-language investigation. Although there is no single comprehensive theory of deixis at present, this paper examines two provocative perspectives on the topic in light of data from Chiwere (Siouan).

Denny's Approach

The first of these theories is a distinctive feature framework for spatial deixis developed by Denny (1978) as shown in Figure 1. He compares the spatial adverbials of 3 languages, English, Kikuyu (Bantu) and Eskimo, which have seemingly very different deictic systems, and he develops a feature hierarchy that accommodates all of these languages. English has the minimal system possible with (1) the primary contrast between 'here' (speaker's location) and 'there' (all other locations). Both Kikuyu and Eskimo add the following features:

2. Extended vs. non-extended. This means a stretch or area of space as opposed to a particular spot in space. A house would be classified as non-extended while a field or river might be extended. The distinction can apply to both speaker's and other locations.

3. In field vs. out of field. This typically refers to those locations in the 'there' category which can be seen or pointed to, in contrast with indefinite or

unspecified locations (e.g. 'that place where X happens' vs. 'wherever X happens').

(4) Speaker-centered deictic field vs. other-centered deictic field. This distinction is between the normal ego-centered use of deictic terms and those with a different orientation as center, especially addressee's location or previously mentioned locations (Denny 1978:72-73). The latter case is prevalent in discourse, where a speaker may refer back to a location established earlier with the implication of being centered in that place, rather than in the situation of utterance.

Finally, Eskimo adds two more features to 'there' not present in Kikuyu and English, thereby delimiting five locations through distinct roots, including (5) verticality ('up there' vs. 'down there'), and (6) boundedness ('in there' vs. 'out there'), with (7) an 'over there' as the unmarked category for unbounded locations in the horizontal plane. The following case endings may also be added to these locative roots: locative (at), source (from), goal (to), and path (via) (Denny 1978:74).

In Eskimo, a prefix marking the 'other' centered deictic field may be added to all forms, so that the 'other' field is as fully differentiated as the egocentric one, unlike Kikuyu, which has only one undifferentiated 'other' field (Denny 1978:75).

```
speaker's field
  ↓
here

other field
  ↓
there
   ↓
here [there etc.]
       ↓
+vertical
     ↓
up

down

+bounded
     ↓
in

unmarked
     ↓
out

locative
nonext.
extended
[3 other cases]
```

Figure 1: Spatial Deictic Feature Hierarchy (Denny 1978:76).
Schmid and Rauh Theory

A more comprehensive approach is presented by Rauh (1983), who expands work by Schmid (1972, 1983). Rauh begins by adopting Lühler's (1934:102) egocentric localistic base for deixis, with the *origo* or zero point of the indexical field rooted in the speaker (the ego), and the place and time of the utterance (Rauh 1983:24). However, while Bühler deals separately with each dimension, Rauh advocates an approach called deictic determination. Unlike Denny's feature system which is limited to spatial deixis, deictic determination is an alternative to language and dimension-specific deixis said to underlie all deictic dimensions due to the egocentric and localistic nature of language (Rauh 1983:12).

As shown in Figure 2, the criteria for deixis are: a) point of orientation, b) in connection with point of orientation, and c) not in connection with point of orientation (Rauh 1983:16). Languages may further segment these distinctions in particular ways, but at least these three criteria are believed to be necessary for universal deictic description.

![Figure 2: Deictic Dimensions: a) point of orientation; b) related to (a); c) not in contact with (a) (Rauh 1983:19).](image_url)

Schmid (1983:67) uses these principles to develop a four-feature system of deictic dimensions: a) topic a; b) direct relation to (a); c) domain of (a b); and d) determination in (c). The combination of these features (both positive and negative) results in six
categories which Schmid and Rauh propose as the general, perhaps universal potential of deictic categories (Rauh 1983:20):

\[
\begin{align*}
D_1: & \ [+a, -b, -c, -d] \text{ 1st person 'I'} \\
D_2: & \ [-a, +b, -c, -d] \text{ 2nd person 'you, you-all'} \\
D_3: & \ [-a, -b, +c, +d] \text{ 1st p. inclusive 'we (all of us)'} \\
D_4: & \ [+a, -b, +c, -d] \text{ 1st p. exclusive 'we (some of us)'} \\
D_5: & \ [-a, -b, +c, -d] \text{ 3rd p. 'he/she/it/they'} \\
D_6: & \ [-a, -b, -c, -d] \text{ 3rd p. obviate proximate}
\end{align*}
\]

It is difficult to illustrate these categories in terms of the English system of deixis, which is relatively impoverished in the distinctions made. A rough approximation using the pronominal system will perhaps illustrate its potential. Since the speaker is the origo or point of orientation, those categories with either +a or +c will represent the first person forms, while +b stands for second person, and those categories with -a, -b, and -c are the third person forms. The variable d allows for language or dimension specific subclassification, such as position of addressee, degrees of distance (Rauh 1983:19-21), inclusivity, and proximate (3rd person form used for person near the center of attention) and obviate (any subsidiary animate 3rd person which may come into the discourse). The latter two distinctions are found in Algonquian (Hockett 1965:234). While four dimensions may not suffice in all cases, items which are fully described by such features make up the core of deictic expressions, and subcategorization features may be added for residual terms (Rauh 1983:27-28).

Introduction to Chiwere

Historically, the Siouan language Chiwere was comprised of three dialects, the Ioway, Otoe, and Missouria. However, the Missouria tribe merged with the Otoe at the end of the eighteenth century, and the separate Missouria dialect is considered extinct. The two tribes, the Ioway and the Otoe-Missouria, were relocated to Oklahoma in the late 1880’s, and the few fluent speakers alive today live in the area between Red Rock and Shawnee, Oklahoma. (Approximately 10 Otoe-Missouria and 6 to 10 Ioway are fluent; they range in age from mid-sixties to mid-nineties.)

The sources of data include several weeks of
original fieldwork conducted in 1988, plus the work of earlier scholars, including Dorsey (1880), Marsh (n.d.), Whitman (1947), Robinson (1972), and Taylor (1976).

Spatial Deixis in Chiwere

This paper centers on a description of spatial deixis in Chiwere, the presumed "base" of deictic determination by Rauh and Schmid. The core of spatial deixis in Chiwere as presented in Table 1 consists of a set of morphemes, primarily demonstratives, which may combine with suffixes denoting location or direction.

The demonstratives include je 'this/these [here]', ga/go 'that/those [there]', and gōši 'that one [there]'. Hāri means 'far'.

The locational suffixes -gi 'in the vicinity of 1st person', -da 'at' (Whitman 1947:240) or 'location', and the directional suffix -gu 'motion toward' may be added to these demonstratives and other morphemes to specify location, especially proximity to/distance from the speaker, and direction of movement.

<table>
<thead>
<tr>
<th>In vicinity of:</th>
<th>location/</th>
<th>direction/</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>stationary</td>
<td>motion</td>
</tr>
<tr>
<td>1st p. je</td>
<td>-gi</td>
<td></td>
</tr>
<tr>
<td>2nd p. se'</td>
<td>-da</td>
<td></td>
</tr>
<tr>
<td>1 &amp; 2 p. i-</td>
<td>-gi, -da</td>
<td></td>
</tr>
<tr>
<td>next to ga i</td>
<td>-da</td>
<td>-gu*</td>
</tr>
<tr>
<td>1 &amp; 2 gōši</td>
<td></td>
<td></td>
</tr>
<tr>
<td>far from 1 &amp; 2 p. hári</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*-gu as 'far from 1 & 2 p.' is unattested.

Table 2:
Spatial Deixis in Chiwere.

Both ǰe and ǰi are translated as 'here', and sēda and ñda are sometimes translated 'here', sometimes 'there'. Gařda and gōšida are glossed as 'over there', while hārida is glossed as 'over yonder'. Hārida is not necessarily within the visual field, and position or activity (standing, walking, etc.) may be unknown or indefinite.
This analysis presents some problems, including the exact difference between ga- and goši-. It is possible that the former is specific or definite while goši- is indefinite; on the other hand, ga- could be a separate prefix, giving ga- + i- and ga- + u- > go. Such a form could be related to the i- and u- locational prefixes mentioned by Whitman.

Verbs of Motion in Chiwere

Other grammatical categories reflect a similar feature distribution to that of the demonstratives. Taylor (1976) uses data from a number of Siouan languages, including Chiwere, to reconstruct a Proto-Siouan system of motion verbs (Table 2). The set of motion verbs illustrates further the importance of the features location and direction in Chiwere, as well as adding another feature, the vertitive. Vertitive is the term Taylor uses for verbal stems which "relate the motion to one's home or to an earlier location" (1976:288). The Siouan languages distinguish between home and an unspecified location as destination, as well as between the end point of arrival (the act of arriving) and the inception and/or the continuation of motion, and between 'here' and 'there' as location or goal.

<table>
<thead>
<tr>
<th>Destination:</th>
<th>arriving motion</th>
<th>motion prior to arrival</th>
</tr>
</thead>
<tbody>
<tr>
<td>here...</td>
<td>jí; grí</td>
<td>hú; gu</td>
</tr>
<tr>
<td>there...</td>
<td>hí</td>
<td>rá; grá</td>
</tr>
</tbody>
</table>

Table 2: Chiwere Nonvertitive/Vertitive Motion Verb Stems (Taylor 1976:293).

Although Taylor does not classify jí as vertitive, its use implies that the agent has left home or a previously mentioned location in order to arrive here at the place of the speech event. Thus, the vertitive in Chiwere functions semantically to distinguish source as well as goal. My primary consultant associates use of the vertitive with humans, and nonvertitive with objects or animals. He further explains that Chiwere speakers assume people are going home unless told otherwise.
Discussion

I’d like to examine the models of universal deixis proposed by Denny (1978) and Rauh and Schmid (1983) in light of the Chiwere data. Figure 3 represents local deixis in Chiwere within Denny’s feature system. The first feature is clear-cut, that of speaker’s position vs. all others. I hypothesize that gafl and gōši represent extended vs. nonextended, and hāri may be represented by the category ‘out of field’, since the referent may or may not be visible, and since the normally obligatory grammatical category of the position/activity of the referent may be unspecified.

Unlike Eskimo which recognizes verticality, present-day Chiwere does not seem to find the up/down dimension relevant. Nonetheless, the set of motion verbs provides an additional feature important to Siouan languages, that of vertitive vs. non-vertitive. This distinction may be classed as a subcategorization of the case features of goal (to), that of +/- motion toward home (grā, gū / hū, rā) and location (at) +/- home (grī/ ū, hī). These are also differentiated according to Denny’s first feature, speaker’s location vs. all others.

If the category of +/- home is extended to the two other cases, there would be such a distinction in "source" (having left from one’s home or not) and "via" (path by or through one’s home). This distinction may not be overtly marked in Chiwere grammar, but it seems to be semantically implicit, paralleling the general grammatical tendency to require specification of source and destination. For example, the Chiwere sentence /ikįwarq ji khe/ ‘One came to visit me’ is said to imply that the visitor came from his home to visit [Ø third person, -ki- reflexive, ḫi ‘arrive here’, khe masculine declarative particle]. Furthermore, as mentioned previously, the distinction between vertitive and non-vertitive can only apply if the subject is human, implying the importance of the distinction +/- human in the language, even if it is covert in the deictic system.
To interpret the Chiwere data according to the Rauh and Schmid theory, I have slightly modified their local deictic diagram (Figure 2) to accord with Schmid's four part distinction of (a) topic, (b) indirect relation to (a), (c) the domain of (a b), and (d) not determined in (c). Spatial deixis in Chiwere is presented in Figure 4. This dimension displays an interesting parallel with personal deixis by differentiating between 1st and 2nd person, as well as having an inclusive form (i-) (Hopkins 1988). The additional feature necessary is case: location (-gi, -da) vs. direction or motion towards a destination (-gu).
Figure 4: Spatial deixis in Chiwere in Schmid and Rauh deictic template.

There are six morphemes which may take -da or -gu, (although *hari-gu is only a hypothetical form); this fits well with Rauh and Schmid’s possible permutations of deictic determination.

\[
\begin{align*}
D_1: \ [+a, -b, -c, -d] &= \text{\textit{ja}} \\
D_2: \ [-a, +b, -c, -d] &= \text{\textit{se}} \\
D_3: \ [-a, -b, +c, +d] &= \text{\textit{gai}} \\
D_4: \ [-a, -b, +c, -d] &= \text{\textit{i-}} \\
D_5: \ [-a, -b, -c, +d] &= \text{\textit{goji}} \\
D_6: \ [-a, -b, -c, -d] &= \text{\textit{hari}} 
\end{align*}
\]

To summarize briefly, the Chiwere system of spatial deixis consists of a set of demonstrative and adverbial affixes and motion verbs which delimit particular areas of space in relation to the situation of utterance. The principle organizing features are: 1) speaker’s location vs. all others ('here' vs. 'there'), 2) in field (can point to if necessary) vs. out of field (not necessarily visible), 3) 2nd person’s 'there' vs. all other 'theres' which can be pointed at. These categories may be further distinguished by the feature 4) non-extended vs. extended, 5) location/stationary vs. direction/motion, and a final distinction, 6) vertitive vs. non-vertitive, which implies the importance of the category +/- human.
In a pragmatic sense, one important factor in explaining spatial deixis involves representing the terms of a particular language in a heuristically useful way. Both theories provide adequate methods of presenting the Chiwere system. Denny's universal feature set worked well, needing only slight modification for Chiwere, including the addition of the features 2nd person vs. all other 'theres', location /stationary vs. direction/motion, and vertitive. His hierarchical arrangement has the advantage of listing all the features and their inclusiveness, including the vertitive. Furthermore, there is the possibility of eventual discovery of a universal implicational hierarchy of these features.

In regard to the other theory, part of the attractiveness of the Rauh template as modified for Chiwere data in Figure 4 is that it clearly locates the different domains as they relate to the origo. Furthermore, the use of a template which is not specific to a particular dimension of deixis (spatial, temporal, personal) allows similarities within a particular language's system to be more clearly illustrated, as well as providing an iconic representation of a potentially simpler, more elegant universal theory of deixis. Finally, the psychological implications of Bühler's egocentric/localistic approach intuitively favor the Schmid and Rauh theory which incorporates it as a base.

In conclusion, the two theories of deixis appear to be complementary rather than competitive. In fact, Rauh (1983:25-30) uses Denny's (1978) data to illustrate language and dimension specific features. The crucial distinction between the two appears to be that Denny did not explicitly organize his system around the total situation of utterance, but concentrated on the local deictic system, which inevitably led to both greater detail and less universal applicability.

NOTES

1. se may also function as an independent demonstrative, but there is not evidence yet to support this.
2. Whitman names three positional prefixes, a-, i-, u-. "They locate the action of the verb with reference to a third point not that of the subject or object;" a- means 'on, upon, over,' u- 'in, within, into, and i- 'at, to, by and any general locative not in the other two' (1947:241).

3. The vertitive corresponds to the cis-locative/translocative distinction made in Iroquoian languages by the addition of verbal prefixes. The cislocative indicates motion toward the speaker and the translocative signals motion away from the speaker. This distinction and its extended uses are discussed at length in Abbot (1981:50-51), Chafe (1967), and Bonvillain (1981:65).

4. It is uncertain at this point whether this is the same prefix i- described by Whitman; my interpretation is based upon the glosses given by native speakers.

5. Schmid 1983 also used a generalized hierarchical representation of his system of deictic determination, which Rauh 1983 transformed into the tabular form used in this paper.
REFERENCES


