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Source: *Ethnology*, Vol. 6, No. 4 (Oct., 1967), pp. 381-404

Published by: [University of Pittsburgh- Of the Commonwealth System of Higher Education](#)

Stable URL: <http://www.jstor.org/stable/3772826>

Accessed: 26/01/2015 10:00

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Some Northern Paiute Native Categories¹

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During the past decade, certain ethnographers² have refocused our attention on problems of ethnographic methodology. They have emphasized the need for close examination of field procedures, in order to insure maximum objectivity in description, analysis, and interpretation. They have suggested certain guidelines for investigators, designed to produce more culturally relevant information, avoiding *a priori* biases. Through structural approaches employing the native language as an ethnographic tool, they attempt to go beyond the sterile descriptive level and to discover how phenomena are organized and communicated (Goodenough 1956a: 36; Frake 1962: 75; Metzger and Williams 1966).

Some of the principles of "ethnoscience," the "new ethnography," or "semantic ethnography" have been derived from linguistics, systematic biology, and psychology (Frake 1962; French 1963; Goodenough 1964a, 1964b; Sturtevant 1964). Others were founded on the writings of early ethnographers, such as Boas (1911) and Malinowski (1922). Contemporary structuralists have provided additional impetus (Lévi-Strauss 1951, 1963; Leach 1961; Lounsbury 1956, 1964a, 1964b; and others). Two reviews of the basic concepts and principles of the approach and their origins have already appeared (Sturtevant 1964; Colby 1966.) There is also a growing body of literature illustrating the applications of these principles to various ethnographic problems.³

As part of a Northern Paiute ethnobotanical study, we have investigated the taxonomic relationships of a corpus of 125 plant species, following some of the suggestions of ethnoscience methodologists. The results of the work show: (1) the operation of a taxonomy with fundamental divisions based on use, which applies not only to plants, but to animals; (2) certain problems in formally eliciting the taxonomy along some of the suggested lines (these may reflect some aspects of the interplay of verbal and nonverbal behavior in Northern Paiute); and (3) the usefulness of native texts, not only in providing the elements of the taxonomy, but also in supplying other information not easily obtained by formal questioning. These three points will be discussed in order in the sections to follow.

THE CLASSIFICATION⁴

The informants segregated the natural phenomena of the world, glossed "from people (Indian) on down, everything on or above the earth" [nimí-

FIGURE 1: OVER-ALL CLASSIFICATION

| | | | | |
|-------------------------|----------------------------------|---------------------------------------|-----------------------|---|
| Things in the ground | | Things that Grow in Place [náad̥i] | Things That Are Eaten | FROM PEOPLE ON DOWN, EVERYTHING ON OR ABOVE THE EARTH |
| | | | | |
| Things that crawl | Things that Move [yíçíŋ·ad̥i] | Things that Grow in Place [náad̥i] | Things That Are Used | |
| Things that have claws | | | | |
| Things that have hooves | | | | |
| Things that fly | | | | |
| Things under the water | | | | |
| Things in the ground | | | | |
| Things in the water | | | | |
| Things that crawl | Things that Move [yíçíŋ·ad̥i] | | | |
| Things that have claws | | | | |
| Things that fly | | | | |
| Things in the water | | | | |

weimanagwan·a tuʔíhi kadípigubagweiti] into three major categories: (1) *things that are eaten* (as food), (2) *things that are used*, and (3) *things that are not used*. The corresponding Paiute terms are, in order, [náad̩i], [nahán·id̩i], and [káí nahán·id̩i]. (The taxonomies of each of these are given in Figures 2-7. The over-all scheme is presented in Figure 1.)

Differences in use outweigh similarities on other grounds. For example, although the Northern Paiute use a single term [náad̩i] to describe what English speakers call "plants," plants are not a single system in the taxonomy but are divided among the three major categories. Plants are classified in a different way under each of the three main divisions, thereby reinforcing our impression that groupings based on use are of primary importance.

Although Frake (1962: 78-79) states that on any level of a classification the members have equal status, our data suggest that in addition to the usual hierarchy from top to bottom, the three main divisions of the Northern Paiute system represent a hierarchy from left to right. The category [náad̩i] is always discussed first by informants, even in highly structured eliciting situations, such as suggested by Metzger and Williams (1966). The other two categories are of less importance, with *things that are used* perhaps operating covertly as well as overtly.

1. Things That Are Eaten

The major category *things that are eaten* has two primary subdivisions: *things that grow in place* [náad̩i] and *things that move* [yic̩ij·ad̩i]. Mathiot (1964: 158) found a similar division in Papago, a related Uto-Aztecan language, corresponding roughly to inanimate *vs.* animate. As we have not fully investigated ideas of "living" *vs.* "non-living," we cannot say with certainty that this is the designation represented in the Paiute concepts. Informants were reluctant to apply the English term "living" to the category [náad̩i].

Things that grow in place are of two major types: those found *in the water* [páaweit̩i] and those *in the earth* (implying rooted in the earth) [t̩ipinat̩i]. To designate plants specifically, as opposed to animals, rocks, etc., the terms [t̩ipinanaad̩i] and [páawei náad̩i] can be used.

The plants that grow *in the ground* are grouped at this level according to the part of the plant that is eaten: *seeds* (literally "eye") [ap̩ii], *roots* (tuber or expanded stem [at̩iná], *berries* [kam·ád̩i], *greens* [puináad̩i], and *flesh* [atukú]. The category *seeds* illustrates one of the problems of taxonomic studies, that of finding the criteria for category inclusion (Frake 1962: 77). A list of members alone does not always make the criteria obvious. *Seeds* has the largest number of individual plant members in all the classifications thus far. Size is apparently not a determining factor, as the seeds range in size from acorn to tansy mustard (smaller than the head of a pin). All the members do have a hard outer layer. Informants discussed similarities in terms of preparation: all are winnowed, either to remove shells or chaff, ground into flour, and later liquefied into a porridge or gruel. Only one member is leached: the acorn. No one volunteered information relating these plants on any other basis, e.g., physical appearance of the

FIGURE 2: THINGS THAT ARE EATEN (A)

| Things That Are Eaten | | | | [nadákadt] | |
|---|---|--|--|--|---------|
| Things that Grow in Place | | | | [náadi] | |
| Things in the Ground | | | | [tipinat] | |
| | | | | Things in the Water [paaweit] | |
| seeds [apui] | berries [kam·add] | greens [puinaadt] | roots [atna] | flesh [atuku] | [pimup] |
| [aca] tansy mustard [akt] mule's ears | [ciábui] wild rose berry [hub·ú] elderberry | [fítzʔi] Allium sp. [kam·f·s·igí] | [hun·fui] [yapá] Indian potato [yadfcil] | [tuhú] "Indian Asparagus" [nimé n·aká] mushrooms | |
| [kóogil] sego lily [kubá] blazing star | [hun·ábi] huckleberry [hupui] | [padzil] wild onion [síigil] Allium sp. | [kayftya] | | |
| [tthá] pinenuts [wáada] seep weed [wai] rice grass [wfa] acorn etc. | [ttháui] Sarovis berry [tō'isabui] chokecherry [wíapui] buck berries | | [kóogil] sego lily [payapá] | | |
| | | | [tam·áciwa] nut grass etc. | | |

plant structure. The used portion of the plant seems more important than any other over-all physical characteristic.

The category *berries* illustrates Frake's (1962: 179) principle that "it is the use of terms, not their linguistic structure that provides evidence for inclusion." Most of the member terms end with the morpheme [púi]:

[tóʔisabui] (chokecherry), [wíapui] (buckberry), [ciábui] (wild rose berry), and [tiábui] (sarvis berry). Riddell (1960) transcribed a term for red raspberry as [atsapui] from Honey Lake Paiute informants, thereby adding another possible member. Two members of this grouping do not end in the morpheme: [hub·ú] (elderberry) and [hun·ábi] (huckleberry). One member of the grouping *roots* does contain [-pui]: [hun·ípui] (unidentified). Dependence on linguistic criteria alone would lead to possible confusion. It is, however, interesting to note possible linguistic reasons for grouping plants.

The category *greens* includes onion-like plants whose tops were eaten and an unidentified leafy green [kam·í s·igi], said to grow flat on the ground and to be succulent in character. The term [kam·í s·igi] has an obvious etymology, the literal meaning being "rabbit's intestine."

The category *flesh* includes only two members thus far: the parasitic *Orobanche* [tuhú], whose fleshy stalk was roasted and eaten, and mushrooms [nimí n·aká], literally "Indian's ear." We have not collected a range of mushrooms to see if there is further differentiation.

The water plants [páaweiti] in the *eaten* category are not further subdivided, and include named varieties, such as cattail, tule, and watercress.

The category *things that grow in place* contrasts with *things that move*. (Detail for this category is given in Figure 3.) *Things that move* [yicíŋ·adi] is divided into *things that crawl* [nuyúadi], *things that have claws* [sidúkaʔyu], *things that have hooves* [tosígigaʔyu], *things that fly* [yozídi], and *things under the water* [padúhati]. Means of locomotion may be the common element, although this is not entirely clear.

The category [yozídi] includes two primary subdivisions: [huzíba] *birds* and [muíbigwaʔniʔyu] or *fly-like things*. An alternative term for *fly-like things* is [tiágiciʔyu yozídi], "tiny flyers," indicating that size is a criterion for division. The category *birds* includes the English taxonomic designation "birds" as well as bats, and has two subdivisions according to flight pattern and habitat: [paʔágweiti], high flyers, and [típinagweiti], low or ground birds. Birds that spend most of their time on the ground and fly for only brief periods at low altitude are grouped in the ground category. Those that spend more time in high flight, or off the ground and in the trees, are classed as high flyers. One informant said the birds called low flyers "can't get up more than 20 or 30 feet off the ground." The high category includes ducks, swans, geese, etc. (also, in the *not used* category, robin, hawk, pinyon jay, etc., and bats). The edible ground birds include sage hen, mountain quail, mud hen, etc. Mathiot (1964: 156) has noted a similar high *vs.* low distinction for birds in Papago.

The category *fly-like things* includes small flying creatures such as locusts. In the major division *things that are not used* the category has other subdivisions (see Figure 7).

The edible [padúhati] or *things under the water* include several types of native fish. The boundaries of this category have not been established as yet. One of the terms has an obvious etymology: [musúibag·wi] (catfish), or "moustache fish." Another, [tocíbag·wi], is said to mean "shiny or trans-

parent fish." The term [točí] is also applied to spring water bubbling up (especially hot-water springs) and to fields of white flowers waving in the wind. The application to minnows apparently derives from their transparent appearance and their habit of darting from bottom to surface in schools, creating flashes and seeming turbulence in the water.

2. Things That Are Used

The category *things that are used* contrasts with that of *things that are not used* and is illustrated in Figures 4 and 5. The groupings are the same to the heavy horizontal line indicated on the figures. Plant categories will be stressed, and [yicáj·adi] or *things that move* merely outlined. The same procedure will be followed for the category *things that are not used*.

As compared with *things that are eaten*, the organizational principles for plants that are used are different below the level of *things in the ground* and *things in the water*, the segregates being based on a mixture of use, appearance, growth association, and other criteria. The divisions shown are illustrative, not exhaustive, and do not form contrast sets in all details (the subdivisions under *medicine*, for example).

Two divisions at this level are made according to use. The first is [natísua] *medicine*, and the second is [sanákoʔo] *gum*. The gums include several named types, the name being usually followed by the term for the appropriate part of the plant yielding the gum, such as [sawábonoʔo] "sage brush balls" (actually galls) and [siŋábi púi] cottonwood tree seeds. Medicines are grouped according to how they are prepared and administered to the patient, i.e., chewed, liquefied to make a poultice, sprinkled to asperge, sucked or dissolved in the mouth, smoked, drunk, used as a shampoo, etc. Several alternative classifications were suggested for medicines. This seems to be an area where specialized knowledge influences constructs.⁵ Since many medicinal plants can be used in various ways for various purposes, some are listed under more than one subdivision. The plants do not form contrast sets; it is the uses that contrast.

Forest [wogópi] is defined for the growth association of a number of tall, woody-stemmed plants or trees perceived to grow together in a mountain environment. The *forest* designation does not include understory plants, such as manzanita, found in the same environment. The members include only the tall trees, such as [katáabi] (fir tree), [pawápi] (cedar tree), [wía] (oak tree), [sóobi] (aspen tree), and [wogópi], here used at a different level of contrast to refer to long-needled pine trees and specifically Jeffrey pine. Frake (1962: 82) points out that terms frequently contrast at more than one level, and that the investigator must be prepared to deal with these complexities. Pinyon and juniper are excluded from the *forest* category, because, informants say, they grow apart from the other trees mentioned and are scattered on the hillsides. Cottonwood trees and large willow trees, [siŋábi] and [sagápi], also fall outside this grouping. The term for cottonwood tree can include the willow tree at one level and can also be used in popular speech for any deciduous tree. Trager (1939) has also noted

this feature in the Southwest, where, as in the Great Basin, the cottonwood is almost the only native deciduous tree.

The category *grass* [wahábi] groups together a number of plants on the basis of physical appearance. The member species have slender parallel-sided leaves and grow in clumps. Part of the Linnaean taxonomic family *Gramineae* is included here, in the *things that are used* category, but in the category of *things that are not used* small rushes and other slender stemmed plants are also included.

One other grouping of plants at this level is that of [síibi] or willow. This classification has several named types, not nearly as specific as taxonomic species designations. Only certain willow species were valued for basketry.

In addition to the groupings of plants just reviewed, there are several other plants that do not fall under any subcategory designation. These named varieties include rose bush and chokecherry used for baby basket frames, greasewood for the hard tips of foreshafted arrows, hemp for cordage and string, etc.

The used plants classed as *things in the water* [páaweiti] are individually named varieties which are used in many ways but form no apparent subgroupings. These include [páahi] (algae), [sóipwipi] (equisetum), [tóibi] (cattail), [sáibi] (tule), [wokókobi] (cane), etc. They are used for mats for houses, blankets for cradle baskets, arrow shafts, whistles, etc.

The used *things that move* [yiciŋ·adi] are classified in the same way as *things that are eaten*: things that crawl, things that fly, things that have hooves, things that have claws, things in the water. The clawed animals have a further subdivision covering felines [tuhú?u]. The names applied to individual feline members are compounds of this term plus a descriptive one.

The *things that fly* in this category include only high-flying birds. The other subdivisions are not represented, according to data gathered thus far. The used *things in the water* include minnows, for fish bait, and the cui-ui (bladder used for glue).

3. Things That Are Not Used

The last general division of natural phenomena to be summarized is the class of materials that are not used. An alternative term for this grouping, according to some informants, is [sig·wí ca?ábi] or *just trash*. Others apply the *just trash* designation only to [náadi], excluding *things that move*. Plants in this division are called [sig·wí náadi] *just growth*, comparable to the English designation "just a weed." The land plants are grouped into the following segregates: [sig·wí tonigá?a], *just flowers*, further subdivided according to color or some other distinguishing characteristic such as smell. Examples of the latter are: [izá?asin·a] "coyote's urine" (prickly poppy) and [pug·úsin·a] "horse's urine" (no common name), for their strong odor. A second grouping is [sig·wí wahábi] *just grass*, and includes numerous named and unnamed grasses along with a few that are named but useless, such as [tis·íbi] salt grass, [pozídapi] clover (also applied to alfalfa and other introduced clovers), and [monóbi] or fox tail. The term [sig·wí síibi] covers undifferentiated willows. Other terrestrial and water plants can be

FIGURE 6: THINGS THAT ARE NOT USED (A)

| | | | | | | | |
|---------------------------------|-----------------------------|-------------------------------|-----------------|------|-------------------------------------|-------------------|-------------------------------------|
| Things That Are Not Used | | | | | [kái nahán·ídt̩] | | |
| Things that Just Grow in Place | | | | | [st̩g·wí náadt̩] | [st̩g·wí caʔádt̩] | Things that Move [y̩t̩c̩ɛŋ·adt̩] |
| things in the ground | | | | | | | |
| [t̩t̩ip̩nat̩t̩] | | | | | | | |
| just flowers | just grass | just willows | Indian stickers | ... | Things in the Water [paawelt̩t̩] | | |
| [st̩g·wí tonigáʔa] | [st̩g·wí wahnádt̩] | [st̩g·wí síhbi] | [n̩tḿ̩ c̩hída] | etc. | unnamed | | |
| [l̩z̩áʔasin·a] prickly poppy | [t̩ts·l̩h̩t̩] salt grass | [l̩z̩íst̩t̩bi] gray willow | unnamed | | | | |
| [pugusín·a] | [pozídaɸt̩] clover | other unnamed | | | | | |
| other unnamed | [m̩onóɸt̩] fox tail | | | | | | |
| | other unnamed | | | | | | |

FIGURE 7: THINGS THAT ARE NOT USED (B)

| Things that Grow in Place [naadt] | | Things that Are Not Used [k'ai nahān·id̄i] | | Things that Move [ytc̄ŋ·ad̄i] | | Things that Fly [yoʒ̄d̄i] | | Things under the Water [paduhat̄] | |
|------------------------------------|--|--|-----------------------|-------------------------------|-----------------|---------------------------|--------------------|-----------------------------------|--|
| | | things that crawl [nuyūd̄i] | | things that crawl [nuyūd̄i] | | birds [huz̄iba] | | fly-like things [mibi-gwa ni ʔu] | |
| | | ants [nuída] | lizards [tab·íciɓaʔa] | (snakes) | spiders [soáda] | etc. | high [paʔágweitt̄] | flies [mibi] | |
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called by any of the designations, *just trash* [sɨg·wí caʔábi], *just growth* [sɨg·wí náadi], or *just green growth* [sɨg·wí puináadi]. Thorny plants can also be called [nimá cihídi] “people stickers.”

The water plants within the division *things that are not used* [kai nahán·idi] include a few named varieties and numerous other unnamed types that can be called [páawei náadi] or *water growth*.

The category *things that move* has some additional subdivisions not recognized in the other main divisions. The *crawlers* [nuyúadi] are divided into: [huída] *ants*, with several types named for the color, size, etc.; *lizards* [tab·ícibaʔa] (excluding the horned lizard), and *snakes*, recognized as a subgrouping but without a designating term. (Some informants applied the name of the rattlesnake [togóg·wa] to the entire class, but others did not agree.) Spiders, ticks, beetles and other small *crawlers* are grouped together as [soáda], although the term is generally translated by informants to the English equivalent “spider.” There are other crawlers that do not fall into any of these subdivisions, such as worm [woʔábi], louse [puzíʔa], and turtle [kóʔya].

Fly-like things, a subdivision of *things that fly*, has as one member the designation [muíbi] *flies*, including “big fly,” [pabáʔyu muíbi] (bottle fly), deer fly or “gray fly” [izímuibi], etc. Other *fly-like things* are named without further subdivisions; examples are mosquito, yellow jacket, butterfly, and moth.

The water creatures under *things that are not used* [káí nahán·idi] include frogs and unnamed fishes. Some of the frogs [pamógo] are named for color [túupamogo] “black frog,” [izípamogo] “gray frog,” or for other characteristics. Pollywogs are recognized as frogs.

DISCUSSION OF THE CLASSIFICATION AND ELICITING TECHNIQUES

Recent papers on folk taxonomies have devoted some attention to discovery procedures (Frake 1964: 143-144; Metzger and Williams 1963a, 1963b, 1966; Perchonock 1965; Bright and Bright 1965). Some of their suggestions were followed during the Northern Paiute study, with varying results. Figure 8 illustrates a classification scheme (for plants only) derived from informants in the early stages of the study, using a variety of techniques. Figure 9 represents an application of the Metzger and Williams (1966) approach (see below). These schemes, along with the one just outlined, have certain elements in common. They also diverge at some points. Each classification is a native construct. The differences seem to be the result of the particular set of contrasts in the minds of informants at the time they were questioned. The details of classificatory schemes probably differ slightly in any culture, and the ethnographer can knowingly or unknowingly guide his informants along one or more avenues depending upon his approach. In the presentation of data, however, the ethnographer faces a dilemma: Is a construct derived solely from what a native speaker says readily about the phenomena a better representation of cultural reality than one that is in a sense the ethnographer's average of what several people have said in various contexts. plus what he has observed in nonverbal situations?

The answer is far from simple. Several studies (Brown and Lenneberg 1954; Lenneberg and Roberts 1956; Bright and Bright 1965; Carroll and Casagrande 1958; and others) have attempted to deal with the influences of verbal and nonverbal behavior on cognitive mapping. Their results suggest certain correlations, but these are difficult to quantify. Their reports indicate that both aspects do play some part in cognitive and communicative processes and should be considered equally in any inquiry dealing with native conceptualization. Bright and Bright (1965: 255) offer a model that they feel brings together some of the interrelationships of these factors. All authors agree that additional work is needed to shed more light on these interrelationships. The Northern Paiute study does not offer any concrete correlations between these points, but it does suggest certain areas where an interplay of verbal and nonverbal behavior can be recognized. We will discuss the procedures employed in eliciting the taxonomies presented with these various points in mind.

Initial hints of the operation of a taxonomy came while collecting plant specimens in the field toward a general Northern Paiute ethnobotany. We asked informants to describe plants for which they could not supply a name. They volunteered such terms as: [sɨg·wí tonigáʔa] *just a flower*, [sɨg·wí wahábi] *just grass*, [sɨg·wí náadi] *just growth*, [sɨg·wí caʔábi] *just trash*, and [puináadi] *greens or green growth*.

We explored "named" plants in a similar fashion, using simple questions in Paiute (that elicited short descriptions) such as: [suhun·íbui híi] "what is hun·íbui?"—[atiná] "a root"; [suwáada híi] "what is wada?"—[yáhu sunímídkasan·a] "that's what the Indians eat," or [wáada sonadíkadi] "wada is eaten," or [udinahán·a ʔudiká] "they get it and they eat it."

Replies to the question "where does it grow?" asked about plants suggested a contrast between *in the ground* and *in the water*. Texts recorded in Paiute with individual plants as the foci provided information for formulating these questions and more complex ones, and validated categories as well. (Most of the information is in the form of native texts—discussions of plants led by a bilingual interpreter, instructed to ask questions of his choosing. In most cases, informants were looking at specimens of plants as the texts were recorded. The texts were later translated with the help of a bilingual, and transcribed.)

From these lines of inquiry, we began to construct portions of taxonomies, incorporating the body of named and unnamed plants and asking additional questions in Paiute about them. Some lines led to ambiguities; others produced contrasts that were offered on other occasions by different informants. An interesting example of a term that was thought at first to contrast, but was shown later to be optional in the taxonomy is [niníʔí].⁶ Another inquiry led to a paradigm of plant-gathering techniques, but it was not suitable for ordering plants in a taxonomy.

Applications of the Metzger and Williams (1966) scheme, using the initial frame [híi tuʔíhi kadíipigubagweiti] "what is everything on or above the earth," substantiated an early hunch that the domain "plants" was inappropriate as an initial focus. Responses indicated that a category *things*

that are eaten took precedence over [náadi]; [náadi] was translated as "plant," but was seldom used without a modifying term to separate it from other kinds of things that grow.

The most inclusive terms—[nadíkadi] *things that are eaten*, [nahán·idi] *things that are used*, and [kái nahán·idi] *things that are not used*—were derived from the texts and discussions. The term [nadíkadi] was also elicited independently through the Metzger and Williams (1966) technique (see Table 1). Discussions about the term at first prompted informants to divide plants between the categories [nadíkadi] and [kái nadíkadi] *things that are*

TABLE 1

Data for One Case Derived by the Technique of Metzger and Williams (1966)

| | | |
|----|--|---------------------------------------|
| Q. | [híi tuʔíhi kadíipígubagweití] | |
| | <u>What is everything on or above the earth?</u> | |
| A. | [tidíkásan·a] | <u>Things we eat</u> |
| Q. | [him·ádiwazu] | <u>What else?</u> |
| A. | [tidíhóawaisan·a] | <u>Things we hunt</u> |
| Q. | [him·ádiwazu] | <u>What else?</u> |
| A. | [padúhatí] | <u>Things under the water</u> |
| Q. | [him·ádiwazu] | <u>What else?</u> |
| A. | [yozídí] | <u>Things that fly</u> |
| Q. | [him·ádiwazu] | <u>What else?</u> |
| A. | [óʔnosaba] | <u>That's all</u> |
| Q. | [híi tikásan·a] | <u>What is eaten?</u> |
| A. | [akí, tibá, kuhá, acá, kam·f,]. | |
| | <u>Sunflower, pine nut, blazing star, tansy mustard, rabbits, . . .</u> | |
| Q. | [híi tíhóawaisan·a] | <u>What is hunted?</u> |
| A. | [tíhíʔya, kóipa, tín·á] | <u>Deer, mountain sheep, antelope</u> |
| Q. | [híi yozídí] | <u>What flies?</u> |
| A. | [huzíba, p̄hí, páanosa, wohítya] | |
| | <u>Birds, duck, pelican, swan</u> | |
| Q. | [híi padúhatí] | <u>What is under the water</u> |
| A. | [aqái, kuyúil] | <u>Trout, cui-ui</u> |
| Q. | [him·á sunámí kái tikásan·a] | <u>What don't the Indians eat?</u> |
| A. | [togóg·wa, mugúzu, pamógo, soáda, pipúzi, tib·óca, kagwíduhuʔu] | |
| | <u>Rattlesnake, lizard, frog, spider, stink bug, lizard, mountain lion</u> | |
| | | |

not eaten, as illustrated in Figure 8. However, after they began to discuss plants such as hemp, used for twine and cordage, and willows, used for basketry, another grouping emerged to which the term [nahán·idî] was applied, [kái nahán·idî] then being applied to the remainder.

Although the term [nahán·idî] occurs spontaneously in the texts, neither the Metzger and Williams (1966) technique nor our initial "simple question" approach produced it in a formal situation. Questions about hemp and willows, set up to derive negative replies (Frake 1964; Bright and Bright 1965), such as [hii suwihá, nadákadi] "what is hemp, eaten?" directed informants' attention to the possibility of another category. Through the modification, one interesting association of plants was blurred by reallocating its members to other categories. This grouping is a desert brush association to which the term for one member, sagebrush [sawábi], can be applied. It includes sagebrush, rabbit brush, bitterbrush, greasewood, atriplex, etc. (see Figure 8).

Modifying the scheme did not worry informants, as they apparently felt the phenomena could be viewed in this way as well as the way offered earlier (we checked this in three cases). They grouped categories such as medicine, gum, etc., under the new term without hesitation. Throughout the taxonomic study, informants reworked some of their constructs as additional data were recalled. Each new scheme was diagrammed and matched to previous ones to note changes. We avoided checking taxonomies with new informants until they had given us one of their own.

Some informants hesitated in placing *things that move* in the new category [nahán·idî]. All agreed that pelts, feathers, hooves, etc., were used, and that one could say in Paiute "the deer is used," but they did not offer the categorization as freely.⁷ This section of the taxonomy has been marked with diagonal lines to indicate their hesitancy (see Figure 5). The focus on certain parts of the animals may be one disturbing influence. However, our notes indicate that very little of any animal hunted for food was wasted. As materials used from animals are, for the most part, the natural by-products of hunting activities, the category may be operating only covertly. The entire category [nahán·idî] may function in this manner, having less importance in the day-to-day routine than that of food, and being less frequently verbalized. The behavioral aspects may be more important in these situations than the verbal ones.

The initial contrast sets established early in the study, with *eaten* and *trash* as the polar points, seem to reflect this tendency as well (see Figure 8). The taxonomy derived through the Metzger and Williams technique also stressed the *eaten* category (see Figure 9). As Hymes (1964b: 97) has pointed out:

To achieve the goal of mapping a people's cognitive world, . . . one must map also the speech economy within which the linguistically mediated rules operate. . . . One must study not only the structure of the code (or codes), but also the patterning and distribution of its (or their) use. . . . The situations in which language is used, and the importance of language in those situations differs among different groups.

The literature on discovery procedures does not note that general terms were difficult to elicit in any of the situations described. In the Metzger and Williams (1966) system, for example, informants apparently move without

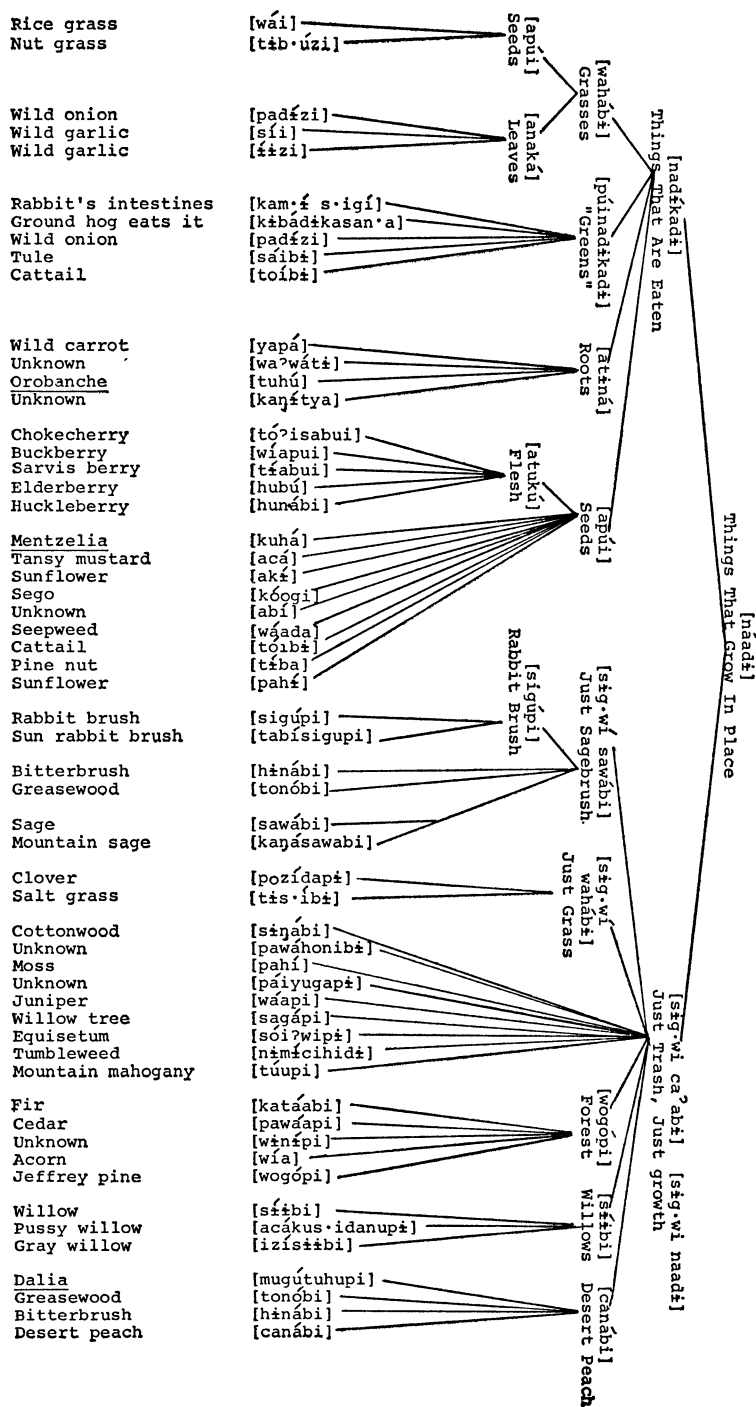


FIGURE 8: THINGS THAT GROW IN PLACE

hesitation from one level to another. Replication of the taxonomy is easily obtained (Metzger and Williams 1966: 389). Other writers, such as Conklin (1954) and Frake (1961), do not describe in detail their experiences in this regard, and the reader is left to suppose that no difficulties were encountered. In the Northern Paiute study, the most inclusive terms and the least inclusive terms were easily elicited. The terms at intermediate levels were elusive and required a variety of eliciting procedures.

Phrasing questions to elicit intermediate-level relationships has been a major obstacle in the study. Questions for determining class inclusion centering on the "kind of" relationship (Conklin 1962b: 129) have been basic in the eliciting frames of Frake (1962; 1964), Metzger and Williams (1966), and others. They suggest: "Is X a kind of Y?" and "How many other kinds of Y are there?" In spite of hypothetical situations and other stubborn efforts, we could not elicit questions that made these relationships explicit. Most frequently offered was "Is (X) like (Y)?" "-waʔniʔyu." This frame was clearly inappropriate for upper-level interrogation. Even for obtaining lowest-level groupings, the concept of "like" was unsatisfactory. From the replies, it was clear that the question "Is X like Y?" is ambiguous, just as it is in English. We were told that "[wái] (rice grass) is like [acá] (tansy mustard) because it is prepared the same way, but it is unlike [acá] because it is a different color." By direct questioning, we were unable to discover a hierarchy of likeness, i.e., whether one thing is more "like" another on the basis of one criterion or another.

One informant offered the term [-matɨ] "related to" in a situation where plants were being compared: [híi kuwaháɨmatɨ] "what is related to grass?". The term can be applied to people, as well as plants and animals. A man and wife are not [-matɨ]. Siblings are [-matɨ]. Although the use of the term in expressing kinship relations has not been fully investigated as yet, it is fairly clear that [-matɨ] implies consanguineal relationship. Affines are not included. On the level of individual plant names, the question "Are X and Y [-matɨ]?" is pertinent, and readily elicits groupings of related plants. But since the divisions at the upper levels are not based on ideas of genetic relationship, but on use, habitat, etc., a question such as "Are *things that move* 'related to' *things that grow in place*—are they [-matɨ]?" is not meaningful to informants.

Neither [-waʔniʔyu] nor [-matɨ] expresses exactly the concept of "kind" suggested for eliciting taxonomies. Criteria for designating plants as [-matɨ] vary, including ideas of growth associations (e.g., the forest trees, the desert brush), form of the plant (e.g., the grasses), color, method of preparation, etc. And [-waʔniʔyu] has similar ambiguities. Bright and Bright (1965: 253) have suggested that the Yurok, Smith River, and Karok speakers of northwestern California have nonhierarchical biotaxonomies, based on likeness relationships. They offer a means of diagramming these relationships with a "sphere of influence" model (see their Figure 1, p. 254). They do not present an entire scheme, so it is difficult to visualize how the models interconnect, if they do in fact connect. Similar models could be worked out for some of the Northern Paiute data, but the hierarchical principles that do

exist would be obscured. We feel that the entire body of Northern Paiute data represents a mixed hierarchical-nonhierarchical scheme, and thus offers special problems to the elicitor. The materials suggest that even when a hierarchical structure is present, it may not be reflected in the language by morphemes that express the "kind of" relationship. Constructing eliciting frames based on this principle may then be highly elusive or impossible.

Another problem in eliciting intermediate-level terms in the taxonomies may reflect the ecological situation in the Great Basin. Since the time of early explorers, the Great Basin has been characterized as an area with meager food resources. In the comparative culture-area approach, it fared similarly. Wissler (1922) described the population as eking out a living from scant resources. Underhill (1953) termed the people "Those Who Have Little to Lose." On the contrary, however, a close examination of the ethnographic data (Kelly 1932, 1964; Steward 1933, 1938, 1941, 1943; Steward and Voegelin 1954; Stewart 1941, 1942) suggests that food resources were varied. The Great Basin is better characterized by its ecological variations and the resulting adaptations than by notions of resource poverty (Fowler 1966).

Downs (1967) concludes that the same resources were not necessarily chosen for exploitation throughout the Basin, nor even within a single linguistic group. Even where resources were similar, food choices varied. Spoehr (1956) recognized that cultures define what is edible, and that these definitions do not necessarily exhaust the potential of the environment. Our study substantiates these points for the Great Basin and reveals that resource exploitation was far from exhaustive. However, it also suggests that the number of alternatives may have been limited at a particular season. Food plants of different varieties ripen at different times, and do not always grow close together. The seasonal round of exploitation concentrates on these factors.

We have noted that the informants tended to respond to questions which ask for amplification of categories with specific plant and animal names. We can speculate that there may be a connection between the ease with which a taxonomy is verbalized and the existence of a situation, such as Frake's (1962: 77) example of the lunch counter, which stimulates verbal organization of foods into levels of classification. If, at a particular time and place, the Great Basin did not offer a wide choice of available foods, perhaps the occasion for grouping foods did not frequently arise. The relationships of various plants seemed far less important than being able to recognize specimens and name them. The varied ecological situation and adaptation to the variety of food resources by the Northern Paiute may have fostered a classification scheme that concentrates attention on a highly specific level rather than on general terms.

There are also indications in our data that informants' concentration on specific names may have additional behavioral correlates, being again an example of the interplay of verbal and nonverbal behavior. When informants are asked questions such as "How would we know that plant?" (hoping for a description of physical characteristics), they frequently respond: "If you don't know it, you can't find it." Informants are more willing to show

us what the plants look like and where they grow than to describe their structure.⁸ We also have additional ethnographic indications that the knowledge of plant forms and their habitats is impressed upon children through demonstration rather than verbal expression. Through following parents in gathering activities, children learned the names of plants, what they looked like, and where to find them. A very important aspect of this communication system was impressing upon the children the ability to recognize plants by smell. (Informants did not give many descriptive terms for plant odors, except to say that a plant smelled like another plant or some other substance, such as "horse's urine.")

If pressed for verbal expression of plant characteristics, informants can make highly specific characterizations, such as [títádigici?yu húupi mas·ába?apín·í] "has small sticks, like hand spread out" referring to the umbel on [tóoza?á], one of the Umbelliferae. However, these comments are less common in text discussions than comments about knowing specific plant names. Informants say, "Oh, I know that one. It is eaten." When one person does not recognize the name, another does not press him for information by describing the physical characteristics of the plant. He simply says, "If they don't know it, they don't know it." As Hymes (1964b: 98) has stated:

Among some peoples, language acts as a central medium of transmission of adult roles and skills, while among others, situations of training contain little or no explicit verbal instruction. The situations are ones of nonverbal observation and practice. Such differences may affect the import of linguistic categories for other behavior.

CONCLUSIONS: THE VALUE OF TEXTUAL MATERIALS AND GENERAL OBSERVATION

It is clear that the Northern Paiute taxonomy as presented could not have been constructed merely from the eliciting frames we have used so far. The text material and observations of nonverbal behavior were essential. If we had limited our investigation to questions about verbal classification, we would not have obtained the additional information necessary for a comprehensive ethnobotany, such as ideas of plant reproduction, conservation of resources, the social relations of food gathering, plant associations, microhabitats, optimum gathering times, effects of soil and water on types of growth, and other effects of the environment. For example, it is hard to imagine how question frames such as those suggested by Metzger and Williams (1966) would lead to a response such as: [sugwíipi kudába kwasí-g·wad·i tazá] "the haze is cooking the pine nuts this summer," which is certainly pertinent to an understanding of how the Northern Paiute view the relationship between plants and the environment.

Such realms may have their own structure, if we agree with Frake (1962: 81) that "the use of taxonomic systems . . . is a fundamental principle of human thinking." They also may be interlinked with other domains in a network of relationships (Frake 1964: 140-141). Such a network is said to be the key to the structural approach to ethnography. But, as Sturtevant (1964: 123) states, "the full ethnoscientific description of a single culture would require many thousands of pages published after many years of intensive field work based on ethnographic methods more complete and more ad-

vanced than are now available." One of Parkinson's laws might be modified to state: "Taxonomies expand to fill the time allotted to do them."

Groupings within a taxonomy only indicate that the members contained have something in common. The identity of the common element is seldom obvious from inspection of the members. Without extensive knowledge of the connotations of the terms for the groupings, and certain nonverbal aspects of the communication system, used in many contexts in addition to that of the taxonomy, one cannot discover the organizational principles of the taxonomy. Without understanding the organizational principles behind it, a taxonomy is trivial. In the Northern Paiute case, we have found that native texts provide more information than formal elicitation on the taxonomy itself and on organizational principles. Continued observation of informants in their dealings with the plant world, and concentration on other ethnographic domains, are also essential.

NOTES

1. The field work for this paper was sponsored by the Desert Research Institute Committee for Research Planning in the Humanities, through a grant-in-aid to Professor Wayne Suttles, Department of Anthropology, University of Nevada. The Center for Western North American Studies of the University allowed time for field work and writing. The data were gathered from the spring of 1965 to the present, as part of a larger study of Northern Paiute ethnobotany and linguistics. A preliminary report of findings was presented at the Great Basin Anthropological Conference, May 7, 1966, in Reno. Professor Suttles' encouragement and criticism, throughout the project, are gratefully acknowledged.

2. Bright and Bright 1965; Conklin 1954, 1955, 1957, 1962a, 1962b, 1964; Frake 1960, 1961, 1962, 1964; French 1956, 1963; Goodenough 1951, 1956a, 1956b; Lounsbury 1956, 1964a; Metzger and Williams 1963a, 1963b, 1966; Ray 1952; Romney and D'Andrade 1964; Voegelin and Voegelin 1957; Wallace 1962, 1965; Wallace and Atkins 1960.

3. See bibliographies in Sturtevant (1964), Hammel (1965), and Colby (1966) for applications to studies of color categories, kinship terminologies, residence rules, disease, ethnobiology, psychology, etc.

4. Transcription of Northern Paiute terms is broadly phonetic. Translations were supplied by informants. Informants were from the food areas where people were called [kuyúitkad̥] "cui-ui eaters" (Pyramid Lake) and [t̥b·úzit̥kad̥] "nut grass eaters" (Dayton, Nevada and vicinity).

5. A number of alternatives to the classification for medicine have been noted. One was a grouping according to the type of illness which could be treated with the plant, subdivided according to the part of the body affected, or by symptoms (fever, cough, sores, etc.). A second had a dual division: "good" *vs.* "bad" medicine. The latter are called [nám̥ t̥ázigit̥], literally "Indian freezers," and are medicinal plants which, if used incorrectly, can numb or even kill the patient. This category includes wild parsnip, said to have been used for committing suicide.

Another alternative classification is "people's medicine" *vs.* "doctor's medicine." Three or four cure-all plants were widely known and are still generally used. These are plants that did not have to be prescribed. On the other hand, one informant stated, the prescription of most other medicinal plants was the shaman's job. He chose medicines to fit each situation, according to a number of criteria, including what the people had on hand or was generally available in their area, what they recognized, his own personal preferences, etc. An individual ordinarily would know only a few cure-alls, plus the plants which he had known a shaman to prescribe. The prescriptions varied even for perceptibly the same disease. The entire category of medicine should be further investigated, as it is undoubtedly a very complex one.

6. During the initial stages of the study, one informant suggested the term [níníʔí] for animals that were not eaten. She went through lists and pictures of animals and applied the term to those she felt fit her qualifications. None of those she chose were commonly eaten. We began to explore the use of the term in textual materials and noted that it also occurred in myths and tales. Mythological creatures such as "bone crusher" [pahízoʔo], water baby [paʔóŋhaʔa], and ghosts [cáazaʔa] and [coʔápi] are [níníʔí]. Coyote and wolf are called "story níníʔí" in their mythological roles.

Additional checking with other informants uncovered a range of meanings. An elderly woman said that men were [níníʔí]. A male informant did not agree. A woman considered a single mouse to be [níníʔí], while a man said that mice could be called [níníʔí] only if there were so many they "became a pest." A woman called turtles "dime store níníʔí." Any unidentified creature, especially when heard at night, is potentially [níníʔí]. The term is also used in a context for sanctioning children, e.g., "be good or níníʔí will get you!" or "don't go outside at night; níníʔí is out there."

The application of the term varied with informants, and opinions about [níníʔí] seem to depend on the age, sex and personal experiences of the informant. [níníʔí] was not part of a consistent contrast set in the classification. "Wild and dangerous creature" seems to be the core theme running through the meanings thus far derived. Although it is outside the classificatory scheme, it is an important designation to the native speakers.

7. The term [nahán·idí] also can be translated "things that are taken." The sentence "the deer is used" is also "the deer is taken," and it may be in this latter sense that it is acceptable to place deer, etc., under the category [nahán·idí]. It is interesting to note from the dual translations of the term the possible implication that what is taken, is used. The entire category warrants further investigation.

8. One informant led us to locations that he had not visited for 30 years—small microhabitats in the midst of large expanses of country. We are continually amazed by informants' knowledge of these locations.

BIBLIOGRAPHY

- Boas, F. 1911. Introduction. Handbook of North American Indian Languages, ed. F. Boas, pp. 1-83. Bulletin of the Bureau of American Ethnology 40, Pt. 1.
- Bright, J. O., and W. Bright. 1965. Semantic Structures in Northwestern California and the Sapir-Whorf Hypothesis. Formal Semantic Structures, ed. E. A. Hammel, pp. 249-258. American Anthropologist (Special Publication) 67: v, Pt. 2.
- Brown, R. W., and E. H. Lenneberg. 1954. A Study in Language and Cognition. Journal of Abnormal and Social Psychology 49: 454-462.
- Carroll, J. B., and J. Casagrande. 1958. The Function of Language Classification in Behavior. Readings in Social Psychology, ed. E. E. Maccoby, T. M. Newcomb, and E. L. Hartley, pp. 18-31. 3rd edit. New York.
- Colby, B. N. 1966. Ethnographic Semantics: A Preliminary Survey. Current Anthropology 7: 3-32.
- Conklin, H. C. 1954. The Relation of Hanunóo Culture to the Plant World. Ph.D. dissertation, Yale University.
- 1955. Hanunóo Color Categories. Southwestern Journal of Anthropology 11: 239-244.
- 1957. Hanunóo Agriculture. Food and Agriculture Organization of the United Nations, Forestry Development Paper 12: 1-209. Rome.
- 1962a. Comment (on C. O. Frake, The Ethnographic Study of Cognitive Systems). Anthropology and Human Behavior, ed. T. Gladwin and W. C. Sturtevant, pp. 86-91. Washington.
- 1962b. Lexicographical Treatment of Folk Taxonomies. Problems in Lexicography, ed. F. W. Householder and S. Saporta, pp. 119-141. Publications of the Indiana University Research Center in Anthropology, Folklore, and Linguistics 21.

- 1964. *Ethnogenaeological Method*. Explorations in Cultural Anthropology, ed. W. H. Goodenough, pp. 25-55. New York.
- Downs, J. 1967. The Significance of Environmental Manipulation in Great Basin Cultural Development. The Current Status of Anthropological Research in the Great Basin, ed. W. L. d'Azevedo, W. A. Davis, D. D. Fowler, and W. Suttles, pp. 39-56. Reno.
- Fowler, C. S. 1966. Environmental Setting and Natural Resources. Southern Paiute Ethnography, by R. C. Euler, pp. 13-31. University of Utah Anthropological Papers 78. Salt Lake City.
- Frake, C. O. 1960. The Eastern Subanun of Mindanao. Viking Fund Publications in Anthropology 29: 51-64.
- 1961. The Diagnosis of Disease Among the Subanun of Mindanao. *American Anthropologist* 63: 113-132.
- 1962. The Ethnographic Study of Cognitive Systems. *Anthropology and Human Behavior*, ed. T. Gladwin and W. C. Sturtevant, pp. 72-85, 91-93. Washington.
- 1964. Notes on Queries in Ethnography. *Transcultural Studies in Cognition*, ed. A. K. Romney and R. G. D'Andrade, pp. 132-145. *American Anthropologist* (Special Publication) 66: iii, Pt. 2.
- French, D. 1956. An Exploration of Wasco Ethnoscience. *Yearbook of the American Philosophical Society* 1956: 224-226.
- 1963. The Relationship of Anthropology to Studies in Perception and Cognition. *Psychology: A Study of the Science*, ed. S. Koch, 6: 388-428. New York.
- Goodenough, W. H. 1951. Property, Kin, and Community on Truk. *Yale University Publications in Anthropology* 66: 1-192.
- 1956a. Componential Analysis and the Study of Meaning. *Language* 32: 195-216.
- 1956b. Residence Rules. *Southwestern Journal of Anthropology* 12: 22-37.
- 1964a. Cultural Anthropology and Linguistics. *Language in Culture and Society*, ed. D. Hymes, pp. 36-39. (Originally published in 1957.)
- 1964b. Introduction. *Explorations in Cultural Anthropology*, ed. W. H. Goodenough, pp. 1-24. New York.
- Hammel, E. A., ed. 1965. *Formal Semantic Analysis*. *American Anthropologist* (Special Publication 67: v, Pt. 2.
- Hymes, D. 1964a. Directions in (Ethno-) Linguistic Theory. *Transcultural Studies in Cognition*, ed. A. K. Romney and R. G. D'Andrade, pp. 6-56. *American Anthropologist* (Special Publication) 66: iii, Pt. 2.
- 1964b. A Perspective for Linguistic Anthropology. *Horizons in Anthropology*, ed. S. Tax, pp. 92-107. Chicago.
- 1964c. *Language in Culture and Society: A Reader in Linguistics and Anthropology*. New York.
- Kelly, I. T. 1932. *Ethnography of the Surprise Valley Paiute*. *University of California Publications in American Archaeology and Ethnology* 31: 67-210.
- 1964. *Southern Paiute Ethnography*. *University of Utah Anthropological Papers* 69.
- Leach, E. R. 1961. *Pul Eliya: A Village in Ceylon*. Cambridge.
- Lenneberg, E. H., and J. M. Roberts. 1956. *The Language of Experience: A Study in Methodology*. *Indiana University Publications in Anthropology and Linguistics* 13.
- Lévi-Strauss, C. 1951. *Language and the Analysis of Social Laws*. *American Anthropologist* 53: 135-163.
- 1963. *Structural Anthropology*. New York.
- Lounsbury, F. G. 1956. A Semantic Analysis of the Pawnee Kinship Usage. *Language* 32: 158-194.
- 1964a. The Formal Analysis of Crow- and Omaha-Type Kinship Terminologies. *Explorations in Cultural Anthropology*, ed. W. H. Goodenough, pp. 351-393. New York.

- 1964b. The Structural Analysis of Kinship Semantics. Proceedings of the Ninth International Congress of Linguists, ed. H. G. Lunt, pp. 1073-1093.
- Malinowski, B. 1922. *Argonauts of the Western Pacific*. London.
- Mathiot, M. 1964. Noun Classes and Folk Taxonomy in Papago. *Language in Culture and Society*, ed. D. Hymes, pp. 154-163. New York.
- Metzger, D., and G. Williams. 1963a. Tenejapa Medicine I: The Curer. *Southwestern Journal of Anthropology* 19: 216-234.
- 1963b. A Formal Ethnographic Analysis of Tenejapa Ladino Weddings. *American Anthropologist* 65: 1076-1101.
- 1966. Some Procedures and Results in the Study of Native Categories: Tzeltal "Firewood." *American Anthropologist* 68: 389-407.
- Perchonock, N. 1965. Navaho Food Taxonomies. Paper read at the Meeting of the American Anthropological Association, November, 1965. (Mimeographed.)
- Ray, V. F. 1952. Techniques and Problems in the Study of Human Color Perception. *Southwestern Journal of Anthropology* 8: 251-259.
- Riddell, F. A. 1960. *Honey Lake Paiute Ethnography*. Nevada State Museum Anthropological Papers 4. Carson City.
- Romney, A. K., and R. G. D'Andrade, eds. 1964. *Transcultural Studies in Cognition*. *American Anthropologist* (Special Publication) 66: iii, Pt. 2.
- Spoehr, A. 1956. Cultural Differences in the Interpretation of Natural Resources. *Man's Role in Changing the Face of the Earth*, ed. W. L. Thomas, pp. 93-102. Chicago.
- Steward, J. H. 1933. *Ethnography of the Owens Valley Paiute*. University of California Publications in American Archaeology and Ethnology 33: 233-350.
- 1938. Basin-Plateau Aboriginal Socio-Political Groups. *Bulletin of the Bureau of American Ethnology* 120: 1-346.
- 1941. Nevada Shoshone. *Anthropological Records* 4: 209-259.
- 1943. Northern and Gosiute Shoshone. *Anthropological Records* 8: 263-392.
- Steward, J. H., and E. W. Voegelin. 1954. *The Northern Paiute Indians*. (Mimeographed.)
- Stewart, O. C. 1941. Northern Paiute. *Anthropological Records* 4: 361-446.
- 1942. Ute-Southern Paiute. *Anthropological Records* 6: 231-355.
- Sturtevant, W. C. 1964. Studies in Ethnoscience. *Transcultural Studies in Cognition*, ed. A. K. Romney and R. G. D'Andrade, pp. 99-131. *American Anthropologist* (Special Publication) 66: iii, Pt. 2.
- Trager, G. L. 1939. "Cottonwood" = "Tree": A Southwestern Linguistic Trait. *International Journal of American Linguistics* 9: 117-118.
- Underhill, R. 1953. *Redman's America*. Chicago.
- Voegelin, C. F., and F. M. Voegelin. 1957. Hopi Domains: A Lexical Approach to the Problem of Selection. *Indiana University Publications in Anthropology and Linguistics* 14.
- Wallace, A. F. C. 1962. Culture and Cognition. *Science* 135: 351-357.
- 1965. The Problem of the Psychological Calidity of Componential Analyses. *Formal Semantic Analysis*, ed. E. A. Hammel, pp. 229-248. *American Anthropologist* (Special Publication) 67: v, Pt. 2.
- Wallace, F. C., and J. Atkins. 1960. The Meanings of Kinship Terms. *American Anthropologist* 62: 58-80.
- Wissler, C. 1922. *The American Indian*. New York.