PART FOUR

SYNTAX

UNIT 14

Introduction

In the phonology and morphology sections, we saw that languages combine smaller units to create larger units. In phonology, the building blocks are individual features; in morphology, the building blocks are units of meaning. Now we turn to *syntax*, where the building blocks are words and signs and the structures we are building are phrases and sentences.

Just as phonology is the study of the rules for combining features and phonemes, and morphology is the study of the rules for combining morphemes, syntax is the study of the rules for combining words to form sentences. Remember that linguistic rules are not *prescriptions* of what is right or wrong, but rather *descriptions* of what users of a language do and do not do, based on scientific analysis.

One of the features of language that makes it distinct from other communication systems is its productivity. The number of sentences that can be produced in a language is infinite, but each language has a finite set of rules for making sentences. Users of a language know these rules and use them to produce new sentences and to understand the sentences used by other people. The set of rules in a language is called *grammar*, and the linguistic study of these rules is called *syntax*.

Sometimes the users of a language cannot explain the rules of their language, but they know when a rule has been broken. They recognize grammatical and ungrammatical sentences. People sometimes make mistakes when they are using their language, and very often they correct themselves as they are using language. But just because they make mistakes does not mean that they do not know the rules. There is a difference between a user's competence in a language and a user's performance in a language. Competence is what a person knows about the language and performance is how the person uses the language. One part of a user's competence is knowledge of the rules for making sentences, or the syntax of the language.

It is important to recognize that theories about syntactic structure are continually developing and evolving. The most currently cited theories include transformational generative grammar (Chomsky 1965, 1981), cognitive grammar (Langacker 1987, 2008), and functional grammar (Dik 1978). The discussion of ASL syntax in this book is based on the work of Scott Liddell (1980, 2003).

We will start our exploration of syntax with a discussion of the basic sentence types that occur in ASL. Once we have an overall understanding of the ways that sentences are structured, we can take a closer look at the syntactic features that are unique to ASL. The grammatical rules for how signs combine to create sentences are often based on the category of the individual lexical items, so we will introduce lexical categories in unit 16, and then consider the order in which these elements combine to form grammatical sentences in unit 17. Later units will discuss aspect and verb types, and we will conclude this part with a discussion of the many functions of space in ASL, which ties together examples from phonology, morphology, and syntax.

References

Chomsky, N. 1965. *Aspects of the theory of syntax*. Cambridge, MA: MIT Press.

——. 1981. *Lectures on government and binding*. Dordrecht, Holland: Foris Publications.

Dik, S. C. 1978. *Functional grammar*. Amsterdam: North-Holland.

Langacker, R. W. 1987. *Foundations of cognitive grammar*. Theoretical Prerequisites, vol. 1. Stanford, CA: Stanford University Press.

——. 2008. *Cognitive grammar: A basic introduction*. New York: Oxford University Press.

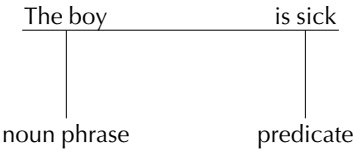
Liddell, S. K. 1980. *American Sign Language Syntax*. The Hague: Mouton.

——. 2003. *Grammar, gesture, and meaning in American Sign Language*. New York: Cambridge University Press.

UNIT
15

Basic Sentence Types

Languages have ways of referring to things or activities, and those ways are called *nouns* or *noun phrases*. Languages also have ways of saying something about those nouns or noun phrases, and those ways are called *predicates*. In the English sentence *The boy is home*, *the boy* is the noun phrase and *is home* says something about the boy. In this sentence, *is home* is the predicate. Predicates can have different forms; they are not limited to verbs. In fact, in the English sentence *The boy is home*, the predicate is a verb (*is*) plus a noun (*home*). In the English sentence *The boy is sick*, the predicate is a verb (*is*) plus an adjective (*sick*). We can look at the sentence like this:



Many languages do not use the verb *to be*. In those languages, a predicate may consist of simply a verb, a noun, or an adjective. In ASL, for example, the sentence BOY EAT consists of a noun (BOY) and a predicate, the verb EAT. The ASL sentence BOY HOME consists of a noun (BOY) and a predicate that is a noun, HOME. The ASL sentence BOY SICK consists of a noun and a predicate that is an adjective, SICK. These ASL sentences do not include the verb *is*, but the noun HOME and the adjective SICK function as predicates; they say something about the noun BOY. Verbs, nouns, and adjectives can be predicates in ASL.

In this unit, we will look at some basic sentence types in ASL, focusing specifically on the role that nonmanual signals play in ASL syntax. These six basic sentence types are questions, negations, commands, topicalization, conditionals, and declaratives.

Vocal intonation in English can mark different sentence types. For example, questions have a rising intonation at the end, while declarative statements have a falling intonation. In ASL, this kind of sentence-type marking is done using

nonmanual signals—movements of the face, head, and body that differentiate the different types of sentences and the clause units within them.

When we gloss ASL sentences, we need to be sure to include a written label for the grammatical nonmanual signals as well as the English words we have chosen to represent each sign. The typical way of representing nonmanuals is by writing the label on a line above the glosses with which the nonmanual co-occurs. An alternative method is to enclose the glosses in angle brackets and place the nonmanual label outside the right bracket. We will see examples of the first method throughout this unit as we discuss several of the sentence types used in ASL.

QUESTIONS

Yes-No Questions

Yes-no questions are questions that are answered with either a yes or a no; for example, *Is John home?* When a speaker of English asks a yes-no question, his voice usually rises at the end of the question. This specific vocal inflection is used in English to mark yes-no questions. Yes-no questions in ASL are marked using specific nonmanual signals. When someone asks a yes-no question in ASL, the eyebrows are raised, the eyes are widened, and the head and body may tilt forward; sometimes the shoulders are raised and sometimes the last sign is held (see Figure 31). To represent the nonmanual signal in writing, we draw a line over the signs that are produced at the same time as the face and body are producing the yes-no question nonmanual. The label that goes with the yes-no question nonmanual is *y/n*, so we write *y/n* at the end of that line. An example of a yes-no question is as follows:

y/n
MAN HOME

This sentence would be translated into English as "Is the man home?"

Sometimes yes-no questions in ASL include a sign that is glossed as QUESTION-MARK. These questions are often asked when the signer is surprised by the information she is being given, or when the signer wants to check what the other person is saying. The QUESTION-MARK sign is made with an X handshape with internal move-

y/n
MAN HOME

Figure 31. Nonmanual signals as part of a yes-no question.

y/n
THINK TEST EASY QUESTION-MARK

Figure 32. An example of a yes-no question with the sign QUESTION-MARK.

wh
MAN WHERE

Figure 33. An example of a Wh-question.

ment (wiggling). The resulting emphasis added by the QUESTION-MARK sign conveys unexpectedness. A similar English example would be the sentence *You really think that the test is easy?* (see Figure 32).

Wh-questions

Wh-questions involve the use of the words *who*, *what*, *where*, *when*, *why*, and *how*. Examples of Wh-questions in English are *Where is John?* and *When is class finished?* When a speaker asks a Wh-question, his voice usually goes down at the end of the question. This is the specific intonation that marks Wh-questions in English. Wh-questions in ASL also include the use of the signs WHO, WHAT, WHERE, WHEN, and WHY, and a very specific nonmanual signal. The nonmanual used to mark a Wh-question includes squinting the eyebrows and tilting the head; also, the body may lean slightly forward and the shoulders may be raised (see Figure 33). The label used for a Wh-question is *wh*, so we write *wh* at the end of the line marking the signs that include the nonmanuals. For example, the English sentence *Where is the man?* is glossed as follows:

wh
MAN WHERE

rh
PRO-1 TIRED WHY STUDY ALL-NIGHT

Figure 34. An example of an utterance containing a rhetorical question.

Rhetorical Questions

Sometimes a sentence contains a question that the asker does not really expect the other person to answer. These embedded questions are called *rhetorical questions*. The function of these structures is to provide the connections between related comments. They are called rhetorical questions because while they look like questions, they are not seeking a yes or no answer or any information from the other person. The signer provides both the question and its answer as part of her comment. The label that is used for rhetorical questions is *rh*, and an example of how it is used with a rhetorical question in ASL is as follows:

rh
PRO-1 TIRED WHY STUDY ALL-NIGHT

A literal translation of this sentence could be, "I'm tired. Why? Because I studied all night," but the overall meaning of the ASL sentence is actually more parallel to the English sentence, "I'm tired because I studied all night." The question WHY functions to connect the two comments, which is similar to the function of *because* and other conjunctions in English.

The nonmanual signal used with rhetorical questions is slightly different than the nonmanuals used with yes-no or Wh-questions. For rhetoricals, the nonmanual includes raised eyebrows and a slight shake or tilt of the head (see Figure 34).

Negation

Sentences can be *affirmative* or *negative*. The process of changing an affirmative sentence to a negative sentence is called *negation*. A negative sentence states the opposite of the affirmative statement. For example,

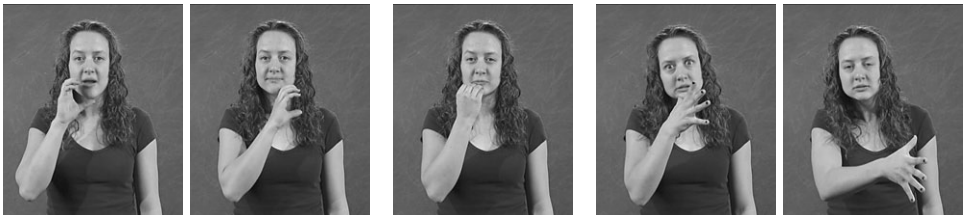
affirmative: The man is home. negative: The man is not home.

In ASL, negative sentences have specific nonmanual signals that include shaking the head from side to side and, possibly, frowning or squinting. The symbol used for glossing negation in ASL is *neg*. An example, which could be translated to English as "The man is not home," is as follows:

neg
MAN HOME

neg
MAN HOME

Figure 35. An example of a negated utterance.



CAFETERIA FOOD DISGUSTING

Figure 36. An affirmative grammatical sentence with negative connotation.

The sign NOT is not required in negative sentences and may be used more for emphasis. The nonmanual signal is sufficient to produce a negative sentence (see Figure 35).

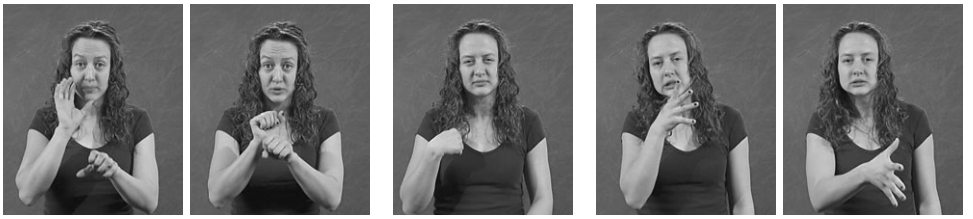
It is important to understand that grammatical negation does not mean that the words in the sentence are describing something bad or unwanted. Words that have negative connotations can be used in grammatically affirmative sentences and vice versa. For example, the sign DISGUSTING has a meaning that is understood as bad or negative, but the sentence shown in Figure 36 is grammatically affirmative.

Commands

The sentences that people use to give commands are different from other kinds of sentences. In English, commands (or imperatives) often occur with vocal stress for emphasis, as in *Sit down!* or *Come here!* In ASL, imperatives have particular nonmanual signals, including making direct eye contact with the person being talked to and possibly frowning. An example of an imperative in ASL is *SIT*. The asterisk (*) is used before and after nonmanually marked signs to indicate an imperative.

Topicalization

Topicalization occurs in ASL when information is expressed at the beginning of the sentence to draw specific attention to it or to emphasize it. Often the topic names



t
HOMEWORK PRO-1 DETEST

Figure 37. An example of topicalization.

what the rest of the sentence will be about. For example, in the ASL sentence PRO-1 DETEST HOMEWORK, PRO-1 is the subject, DETEST is the verb, and HOMEWORK is the object. If a signer wants to emphasize "homework," she might produce the sentence with HOMEWORK nonmanually marked as a topic. The topicalized signs are marked by particular nonmanual signals, including raised eyebrows, a head tilt, and, possibly, a short pause. The label used for glossing the nonmanuals of topicalization is *t*, as shown in the following example.

t
HOMEWORK, PRO-1 DETEST

This could be translated literally into English as *Homework, I detest it*; it also could be translated, *As for homework, I really hate it* (see Figure 37).

Conditionals

Sentences with conditionals express an if-then situation. In English, words such as *if* indicate a conditional, and the if-phrase can come at the beginning or end of the sentence. For example, in English you can say *If it rains tomorrow, the game will be cancelled*, or you can say *The game will be cancelled if it rains tomorrow.* In ASL, conditional phrases can begin with #IF and SUPPOSE, but they don't have to include these signs; it is the use of conditional nonmanual signals that mark the phrase as conditional. These nonmanual signals include raised eyebrows, a head tilt, and possibly a short pause. If the nonmanuals are used, the phrase is conditional, with or without the use of particular signs. The symbol used for conditionals is *cond*, and the English sentence *If it rains tomorrow, the game will be cancelled* is glossed as follows:

cond
TOMORROW RAIN, GAME CANCEL

It is important to note that the second part of the sentence is not conditional. In ASL the conditional phrase is expressed first, and the statement that follows it may be negative or affirmative, a question, or a command (see Figure 38).

cond
TOMORROW RAIN, GAME CANCEL

Figure 38. An example of a conditional clause in an utterance.

Declaratives

Declarative sentences are statements that convey referential information. As a group, declarative sentences in ASL do not seem to be marked by a nonmanual signal, so when we gloss them, we do not include a line over the signs.

The Importance of Nonmanual Signals

In ASL, nonmanual signals, and not the signs, determine the sentence type. The signs of a sentence can be identical, but the nonmanuals make the difference in sentence type. Consider, for example, the signs HOME PRO. These two signs can occur in four different sentence types. The signs themselves are the same; the nonmanuals are different. In each of the following examples, the nonmanual signal is vital in conveying the signer's intended message.

Declarative:	HOME PRO	*You are home.*
	y/n	
Yes-no question:	HOME PRO	*Are you home?*
	neg	
Negation:	HOME PRO	*You aren't home.*
Command:	*HOME PRO*	*Go home.*

Summary

We have seen how different types of sentences are structured and how important nonmanual signals are in ASL syntax. Table 6 summarizes the information on sentence types and nonmanual signals in ASL.

Table 6. Sentence Types and Accompanying Nonmanual Signals

Sentence Type	Nonmanual Signals	Example
1. Questions		
a. Yes-No Questions	Eyebrows raised, eyes widened, head and body may be tilted forward; shoulders may be raised; last sign may be held	y/n MAN HOME
b. Wh-Questions	Eyebrows squinted, head tilted; body may be forward; shoulders may be raised	wh MAN WHERE
c. Rhetorical Questions	Eyebrows raised, head may be tilted or may shake slightly	rh PRO-1 TIRED WHY STUDY ALL-NIGHT
2. Negation	Head shakes side-to-side; may have frown or squint	neg MAN HOME
3. Commands	Direct eye contact with addressee, may frown	*SIT*
4. Topicalization	Eyebrows raised, head tilted, possibly a short pause	t HOMEWORK, PRO-1 DETEST
5. Conditionals	Eyebrows raised, head tilted; possibly a short pause and eye gaze shift	cond TOMORROW RAIN, GAME CANCEL
6. Declaratives	None	PRO-1 DETEST HOMEWORK

REFERENCE

Baker-Shenk, C., and Cokely, D. 1980. *American Sign Language: A teacher's resource text on grammar and culture*. Washington, DC: Gallaudet University Press.

Homework Assignment 11

1. Watch the Kansas and Louisiana conversations and the "Brotherhood," and "House" stories on the DVD and see how many sentence types you can identify. You should be able to find examples of declaratives, topicalizations, negations, and questions. Gloss one example of each.

UNIT 16

Lexical Categories

Now that you are familiar with the basic sentence types used in ASL, we can begin to explore additional aspects of ASL syntax. Before we do this, however, we need to take a look at how signs function in sentences. That is, do the signs function as nouns, verbs, adjectives, or adverbs? These different categories of signs are called *lexical categories*.

Large groups of lexical signs in ASL have very similar properties. These shared characteristics allow us to organize lexical signs into lexical categories. There are two types of signs in ASL. The signs that contribute to the substantive meaning of sentences are called *content signs*, and they include nouns (N), verbs (V), adjectives (Adj), and adverbs (Adv).The other type of signs are *function signs*, and they include pronouns (Pro), prepositions (Prep), and conjunctions (Conj). Content signs are included in the *open* lexical category because new signs can be added to them. In contrast, function signs are a *closed* lexical category because they do not allow new signs to be added.

Each lexical category has a unique set of morphological frames (the position of a sign with respect to the bound morphemes that can be attached to it with a sign) and syntactic frames (the position in which a sign occurs relative to other classes of signs in the same phrase). Both frames of a given sign can be used to determine the lexical category of that sign. The characteristics of the lexical categories in ASL are explained in the following section. Even though there are some universal tendencies across languages in the area of lexical categories, it is important to note that the lexical categories in ASL have unique characteristics that are not applicable to other languages. It is also important to point out that signs can be members of more than one lexical category. A sign's lexical category can only be identified when we see how it is used in a sentence.

Open Lexical Categories

Nouns

Noun signs identify entities such as individuals (name signs like DAVID-on-temple, #ANN), places (CHICAGO, #SEARS, #DENNY'S), and concrete and abstract things (COMPUTER, TABLE, THEORY).

Nouns have some common characteristics that can be used to identify them. One is whether or not they refer to things that can be counted. While many English nouns form the plural by adding the bound morpheme *-s* (*door/doors*), noun signs in ASL tend to occur only in the syntactic frame. That is, unlike English nouns, it seems that there are no bound morphemes that attach to nouns in ASL to pluralize or to otherwise modify them. A small number of ASL nouns form the plural by *reduplication*. That is, the noun is repeated two or three times in an arc or linear movement path. Some examples of noun reduplication are BROTHER++, SISTER++, WORD++, TREE++, and PLANT++. Most nouns, however, cannot be reduplicated. Another characteristic of nouns is that they can be modified with descriptive signs (adjectives). This will be explained later in the section on adjectives.

Verbs

Verb signs are actions, events, processes, and states of being: RUN, WALK, ENJOY, LIKE, HELP, INFORM. ASL has a dynamic verb system that will be explained in unit 19.

Adjectives

Adjectives are signs that describe nouns. Adjectives can describe an opinion, size, age, or color, among other qualities of a noun, and they usually appear before the noun. Figure 39 contains examples of adjectives paired with nouns.

Adjectives in ASL can also function like a verb or *adjectival predicate*. For instance in the sentence <MOVIE>t FUNNY, the adjective follows the noun and acts as a verb (see Figure 40). English adjectives can function in a similar way, except that they are used with a form of the verb *to be*, as in *That movie is funny*.

Adjectives can also be modified. The difference in meaning between TALL MAN and VERY-TALL MAN is that the first sentence describes a tall man and the second sentence describes a man who is very tall. The example on the left side of Figure 41 shows that the sign TALL is a two-handed sign in which the active hand moves from the base to the fingertips of the passive hand. When the sign begins well below the passive hand, brushes it, and ends above the fingertips, along with a marked facial expression, the sign can be glossed VERY-TALL (see right side of Figure 41).

Adverbs

Adverbs are signs that are used to express manner, indicate temporal frequency, or modify adjectives and other adverbs. English marks adverbs most often (although not always) by adding the suffix *-ly* to a word (*quick/quickly*). ASL signs are modified in a different way to express adverbial information. The articulation of a sign (how it

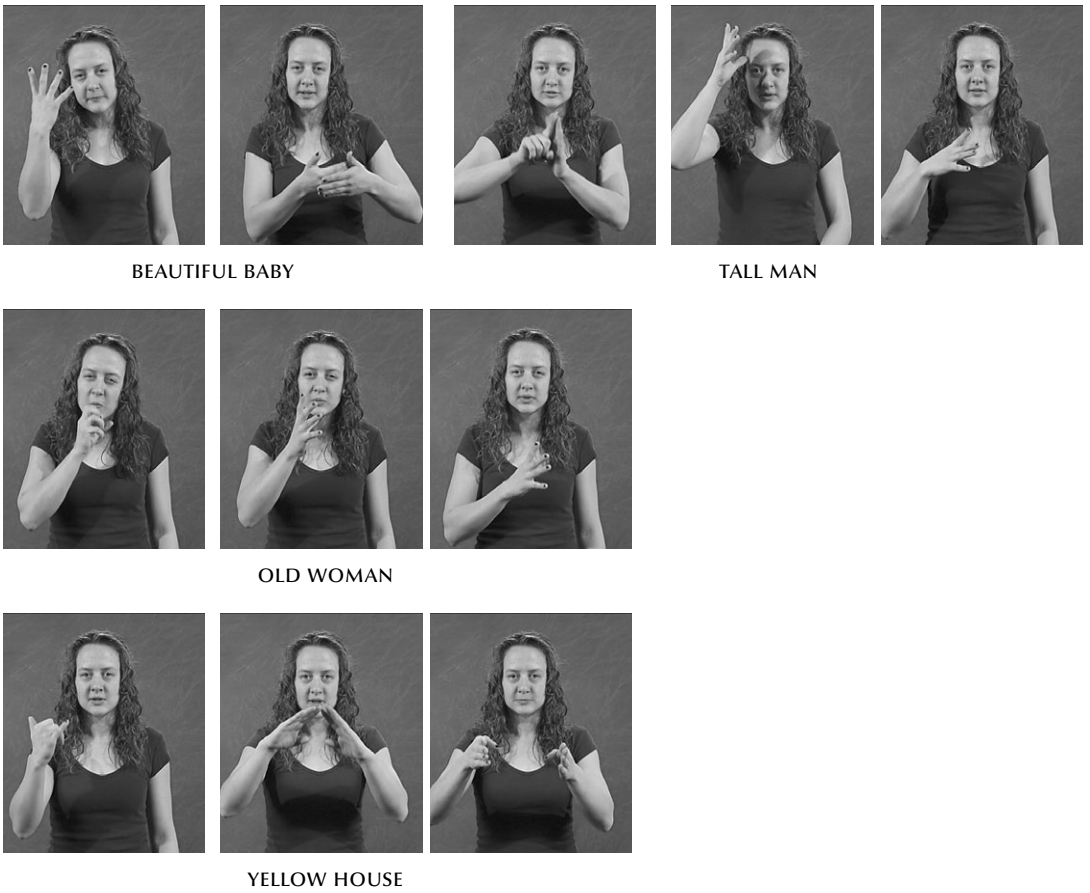


Figure 39. Examples of adjectives paired with nouns.

Figure 40. An ASL adjective functioning as a predicate.

is produced) can be altered and a nonmanual signal added, as in <CHILD>t SIT-FOR-LONG-TIME (see Figure 42). The sign SIT is produced with a repeated arc while the signer simultaneously puffs her cheeks. This sentence conveys the meaning that the child sat for an extended period of time.

Adverbs can also indicate when an action or event took place—YESTERDAY, TWO-WEEKS-AGO, NEXT-TWO-DAYS, and STILL. They tend to occur at the beginning of a sentence. Figure 43 shows a sentence with this syntactic frame.

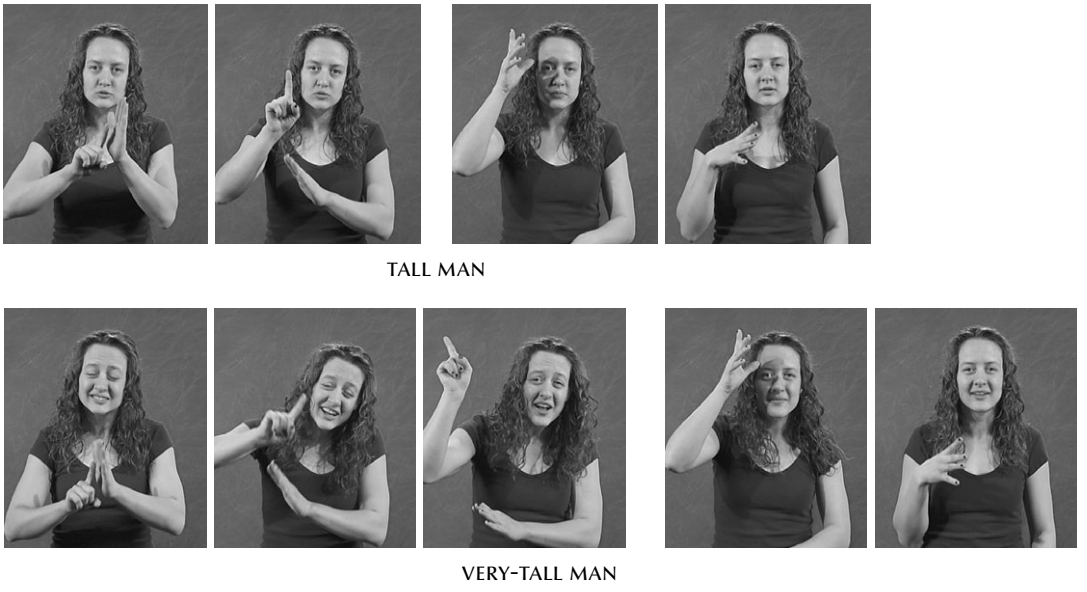


Figure 41. An example of adverbial meaning incorporated into an adjective sign.

Figure 42. An example of altering the articulation of a sign accompanied by a nonmanual signal.

Closed Lexical Categories

The members of closed lexical categories often are used to relate various types of phrases to other phrases. They have little meaning outside of their grammatical purpose. These groups consist of pronouns (Pro), modal verbs (Mod), prepositions (Prep), and conjunctions (Conj).

Pronouns

A pronoun represents a person, place, or thing that has already been identified in a sentence. Languages vary in what information their pronoun systems encode (gender, number, person, case). Examples of pronouns in English are *he*, *she*, *it*, *them*, and *us*. Examples of English sentences with pronouns are *He came home early* and *She gave it to us*. When reading or hearing those sentences, we must know to what or to whom *he*, *she*, *it*, or *us* refers. If we do not know, we cannot understand the sentence. We understand the sentence because the referent (the noun that the pronoun represents) has been introduced earlier in the conversation or because we guess from the context. For example, if one sentence describes *the boy* and the next sentence uses the

t
TOMORROW PRO-1 WORK

Figure 43. An adverb indicating when an event will occur.

PRO-1 PRO PRO-1 PUNISH PRO

Figure 44. First- and nonfirst-person pronouns in ASL.

pronoun *he*, it is safe to assume that the pronoun *he* represents *the boy*. Or suppose three people are seated at a table. If one person looks at the person on her right and points to the person on her left and says *He told me something interesting*, the meaning of *he* comes from the context, and we can assume that *he* refers to the person on the left.

ASL also has pronouns, but its pronoun system differs from English in a number of ways. The first difference is that ASL only has first-person (PRO-1) and nonfirst-person pronouns (PRO) while English has first- (*I/me*), second- (*you*), and third-person (*he/him*, *she/her*, *it*) pronouns. For example, the ASL sentence PRO-1 PUNISH PRO has two pronouns, one that points toward the signer and usually contacts the chest (glossed as PRO-1), and one that points away from the signer (glossed as PRO). The English translation of this sentence could either be "I punished you" or "I punished him," depending on where the signer was looking. Both sentences use the same ASL sign, PRO because there is not a distinct form separating second- and third-person pronouns (see Figure 44).

ASL and English also differ in how they distinguish between subject and object pronouns. English uses different words—*he* (subject pronoun) and *him* (object pronoun), *we* and *us*, *she* and *her*, *they* and *them*, and so forth. ASL pronouns, like the pronouns in many other languages, do not show this distinction. Instead, subject and object are indicated in the sequence of signs. For example, if the initial and final signs in Figure 45 were reversed, the meaning would change.

One similarity between ASL and English is that both languages distinguish between singular and plural pronouns. For example English speakers can say *I want a drink* or *we want a drink*, depending on how many people are thirsty. ASL makes the same distinction (PRO and PRO-PL). Compare the sentences in Figure 46.

PRO$^{\rightarrow X}$ PUNISH PRO$^{\rightarrow Y}$

Figure 45. Distinguishing between subject and object pronouns in ASL.

PRO-1 WANT DRINK

PRO-PL-1 WANT DRINK

Figure 46. Distinguishing between singular and plural nouns.

PRO-MULTI-THREE (first-person)

PRO-MULTI-THREE (nonfirst-person)

PRO-MULTI-FOUR (first-person)

PRO-MULTI-FOUR (nonfirst-person)

Figure 47. Pronouns specifying number.

In addition, ASL has pronouns that are produced with numeral morphemes. This allows the pronouns to identify a specific number. These pronouns are produced with a horizontal circular motion, as can be seen in Figure 47. English can express the same concept that these ASL signs do, but it requires a phrase rather than a single pronoun, *the three of us* or *the four of us*. Table 7 summarizes the pronoun system described in this section.

Table 7. The Pronoun System in ASL.

	First-person Examples		Nonfirst-Person Examples	
PRO-1		PRO	
PRO-DUAL-1		PRO-DUAL	
PRO-MULTI-THREE		PRO-MULTI-THREE	
PRO-MULTI-FOUR		PRO-MULTI-FOUR	
PRO-MULTI-FIVE		PRO-MULTI-FIVE	
PRO-PL-1		PRO-PL	

Figure 48. Examples of modals.

Modal Verbs

Modal verbs like WILL, CAN, MUST, and SHOULD express the idea of necessity or possibility. Modal verbs are produced with other verbs; the modal comes first, followed by the main verb. Occasionally the modal is also repeated after the verb for emphasis. Figure 48 illustrates some examples in the syntactical frame.

Emphasis can be added to modal verbs by incorporating nonmanual signals. For example, the difference between *should*, *need to*, and *absolutely must* can be conveyed by the intensity of the nonmanual signal. The last example in Figure 49 playfully shows intensity by the use of all four fingers in the sign MUST.

Prepositions

Prepositions (Prep) show relationships between nouns and predicates or pronouns. English has many words to express these relationships (e.g., *under*, *on*, *in*, *above*, *with*, and *to*). In ASL these relationships are typically expressed through depiction, indicating and depicting verbs, and the index finger pointing to mean "at." Compared to English, ASL does not have many independent prepositions, but it does use some signs—IN, UNDER, and BEHIND. However, these signs have a different function in ASL in that they typically incorporate more information than English prepositions do. Signs including prepositional information often function as predicates. For example, when the sign INSIDE is produced on the chest with repeated

nodding
PRO-1 MUST EAT

nodding
PRO-1 MUST EAT

nodding
PRO-1 MUST EAT

nodding
PRO-1 MUST EAT

Figure 49. Use of nonmanual signals to intensify modals.

Figure 50. An example of prepositional predicate.

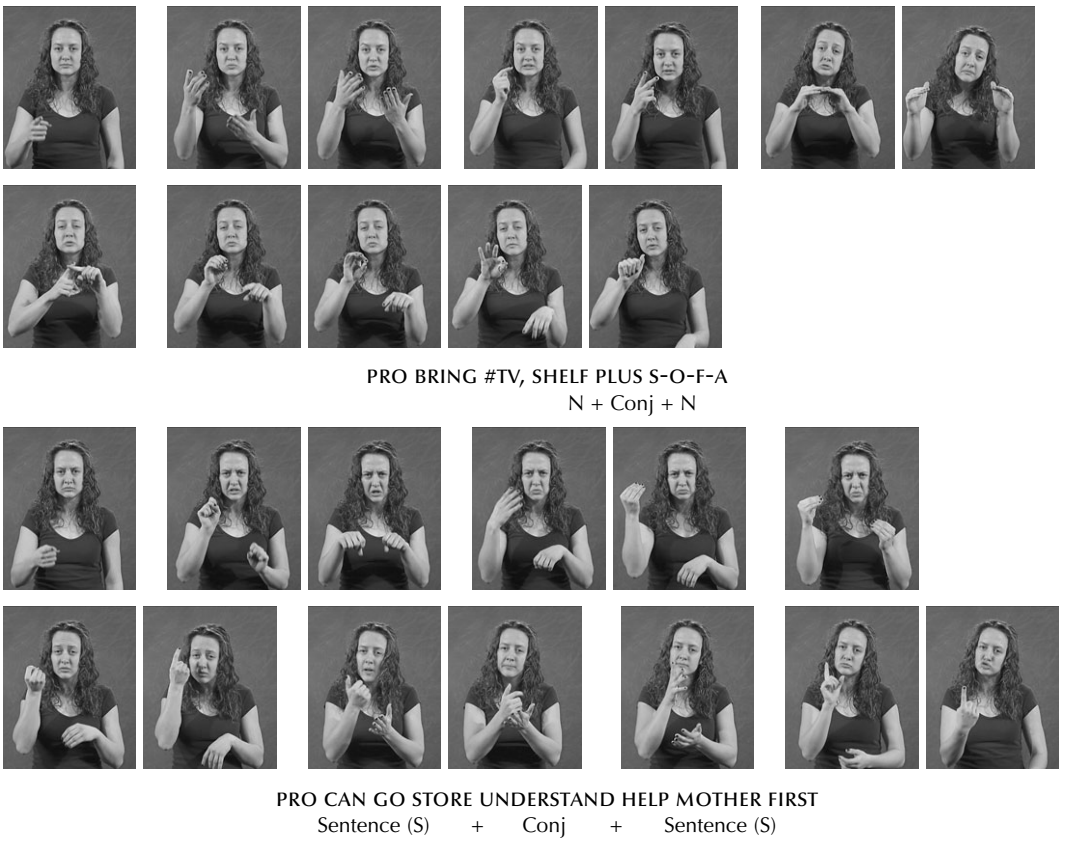


Figure 51. Examples of conjunctions.

movement to talk about inner feelings, it becomes the predicate of the sentence (see Figure 50).

Conjunctions

Conjunctions join words or phrases of the same category. ASL conjunctions include BUT, UNDERSTAND, #OR, and PLUS. Examples of conjunctions in the syntactic frame are shown in Figure 51.

Supplemental Reading

"Syntax: The Analysis of Sentence Structure," by William O'Grady (2005); pp. 401–430

References

Chomsky, N. 1965. *Aspects of the theory of syntax*. Cambridge, MA: MIT Press.
Dik, S. C. 1978. *Functional grammar*. Amsterdam: North-Holland.
Jannedy, S., Poletto, R., and Weldon, T., eds. 1994. *Language Files: Materials for an introduction to language and linguistics*, 6th ed. Columbus: Ohio State University Press.
Langacker, R. W. 1987. *Foundations of cognitive grammar*. Vol. 1 of Theoretical Prerequisites. Stanford, CA: Stanford University Press.
Liddell, S. K. 1980. *American Sign Language syntax*. The Hague: Mouton.
Liddell, S. K. 2003. *Grammar, gesture and meaning in American Sign Language*. Cambridge: Cambridge University Press.
O'Grady, W., Dobrovolsky, M., and Aronoff, M. 1989. *Contemporary linguistics: An introduction*. New York: St. Martin's Press.

Homework Assignment 12

1. Watch the Kansas and Louisiana conversations on the DVD. Gloss two sentences from each conversation and explain how you know that they are sentences. For example, what is it about the signs and the non-manual features that tells you where a sentence begins and ends?

2. Think of two ungrammatical (unacceptable) sentences in ASL and explain why they are ungrammatical.

3. Find one example of someone self-correcting while signing. How does the person indicate that he is correcting himself? What is the mistake?

4. Using your gloss of "The Snowmobile," identify the lexical category of the signs in the first five sentences.

5. Look at your gloss of "The Snowmobile" and see how you would improve it based on what you know now about the structure of sentences in ASL.

UNIT 17

Word Order

In Unit 16 we introduced lexical categories in ASL. The lexical category determines how a sign can combine with other signs to create phrases or sentences. The way a language chooses to organize lexical categories in phrases or sentences is called *word order*. In this unit, we will outline the most common word orders used in ASL.

Sentences can be divided into specific parts. The *subject* (S) is the person or thing that is the primary actor or agent in a sentence. The *verb* (V) is the action, process, or state that occurs in the sentence. The *object* (O) is the person or thing that receives the action. The order in which these occur varies across languages, but the most common word order is SVO. Forty-four percent of the world's languages primarily use SVO order. Both English and ASL have SVO word order as the basic or most neutral order in main clauses.

Basic Word Order in ASL

As we just said, in main clauses in ASL the basic word order is Subject-Verb-Object (SVO). This structure may be used with *transitive* verbs or verbs that allow objects. Take for example the English sentence *The father loves his child*, or its ASL equivalent, FATHER LOVE CHILD. The word order in both sentences is SVO. The same word order is used whether pronouns or nouns are used in the sentence. For example, during the course of a conversation, non-first-person pronouns (glossed as PRO) may be used to refer to the father and the child (see Figure 52).

Additions to this basic word order for main clauses can be made outside the main clause through subject pronoun copy and topicalization. The additions are marked with nonmanual signals such as raised eyebrows, head nods, etc. Even when these additions occur, the main clause order is still the same; the subject will always come before the verb, and the object will always come after the verb.

Subject Pronoun Copy

One potential addition to the main clause is called *subject pronoun copy*. This occurs when a signer uses a pronoun after the main clause to refer back to the subject.

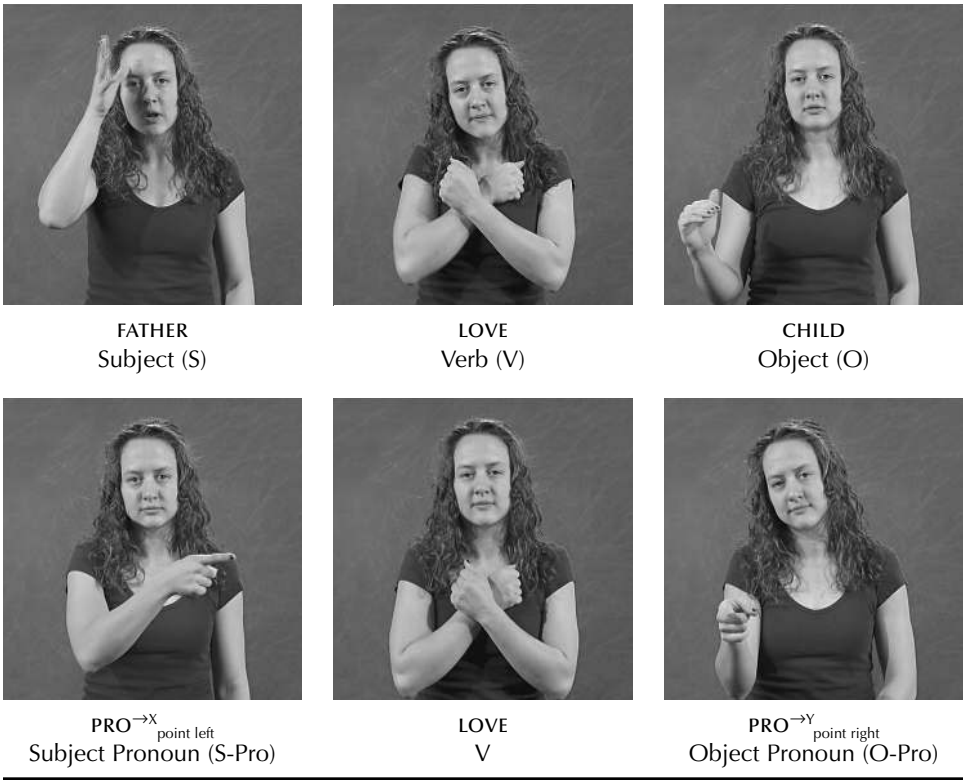


Figure 52. Basic word order in ASL.

Figure 53. An example of subject pronoun copy.

For example, as shown in Figure 53, the pronoun copy PRO refers to the subject of the sentence, the father.

Topicalization

In Unit 15, we introduced sentences with topicalized components. Topicalization occurs when information is expressed at the beginning of the sentence to draw specific attention to it or set it up as prominent, and it results in an adjustment to the basic word order. Often the topic names what the rest of the sentence will be

about. The topic, or prominent information, is signed before the main clause of the sentence and is accompanied by a nonmanual signal. The nonmanual signal used in topicalization is raised eyebrows, slight forward head tilt, and a possible short pause. The use of topicalization allows for structures like the following to occur:

Topic S V
t
CHILD, FATHER LOVE

The sign CHILD is the topic, and the signer makes a comment about the child. As we saw before, this same sentence can occur with pronouns instead of nouns, as follows:

Topic S V
t
PRO$^{\rightarrow Y}_{\text{point right,}}$ PRO$^{\rightarrow X}_{\text{point left}}$ LOVE

The direction where the signer points for PRO provides information about who is being referred to (see Figure 54).

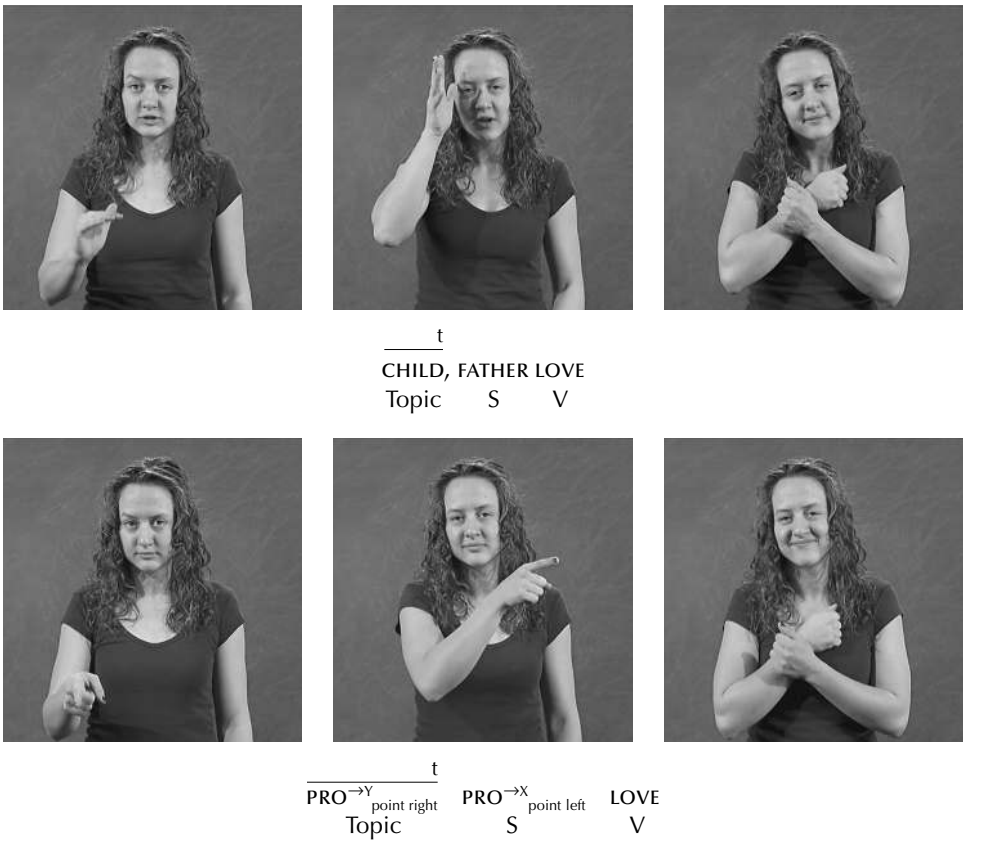


Figure 54. An example of topicalization.

Subject and/or Object Omission

Within the main clause, ASL allows signers to omit the subject and/or object in certain situations. Signers may choose not to express the subject or object when people in a conversation understand it from earlier statements in that conversation. For example, in response to a question about where the dog is, a signer might answer with PRO-1 SEARCH+; CAN'T FIND. The first clause includes a subject and a verb, but the object, which is understood to be *the dog*, is omitted. In the second clause, both the subject (now understood as *I*) and the object (still understood as *the dog*) are omitted (see Figure 55).

Subject and/or object omission in main clauses can occur even with topicalization or subject pronoun copy. For example, the subject may not be signed, and a subject pronoun copy may still be used to refer to the understood subject. A signer might use the following structure:

LOVE CHILD PRO$^{\rightarrow x}_{\text{point left}}$

Figure 55. An example of subject and object omission.

LOVE CHILD PRO$^{\rightarrow X}_{\text{point left}}$
V O Pronoun Copy

Figure 56. An example of pronoun copy with subject omission.

In this example, we know from the earlier context that PRO$^{\rightarrow X}_{\text{point left}}$ refers to the subject, which is understood to be the father (see Figure 56).

WORD ORDER WITH INTRANSITIVE VERBS

Verbs or predicates that do not allow objects are called *intransitive verbs*. The basic word order for an ASL main clause with an intransitive verb is Subject-Verb (SV), as in BOY SILLY. In this case, the subject is a noun, but it could also be a pronoun. The English sentence *He is silly* would be signed in ASL as PRO SILLY. The pronoun in this case is represented by the index finger pointing in the direction of the space already established as referring to that person, often with eye gaze accompanying the pointing. Once you understand this type of sentence, it is easy to think of other intransitive predicates, such as FUNNY, BEAUTIFUL, SMART, and UGLY.

As with transitive verbs, intransitive verbs can be used in main clauses with additions and with subject omission. When subject pronoun copy is added, the complete word order structure is Subject-Verb-Pronoun copy (SVPro), where the pronoun copies the subject and is accompanied with head nodding (nd). This can be written as follows:

$$\underline{\text{nd}}$$
S V Pro

An example of this structure is demonstrated in Figure 57, which can be written as

$$\underline{\text{nd}}$$
BOY SILLY PRO$^{\rightarrow X}_{\text{point left}}$ (subject pronoun copy)

This same structure can also be used when the signer chooses to omit the subject, resulting in an utterance that is Verb-Pronoun, where the subject is understood and the subject pronoun copy includes head nodding.

$$\underline{\text{nd}}$$
V Pro

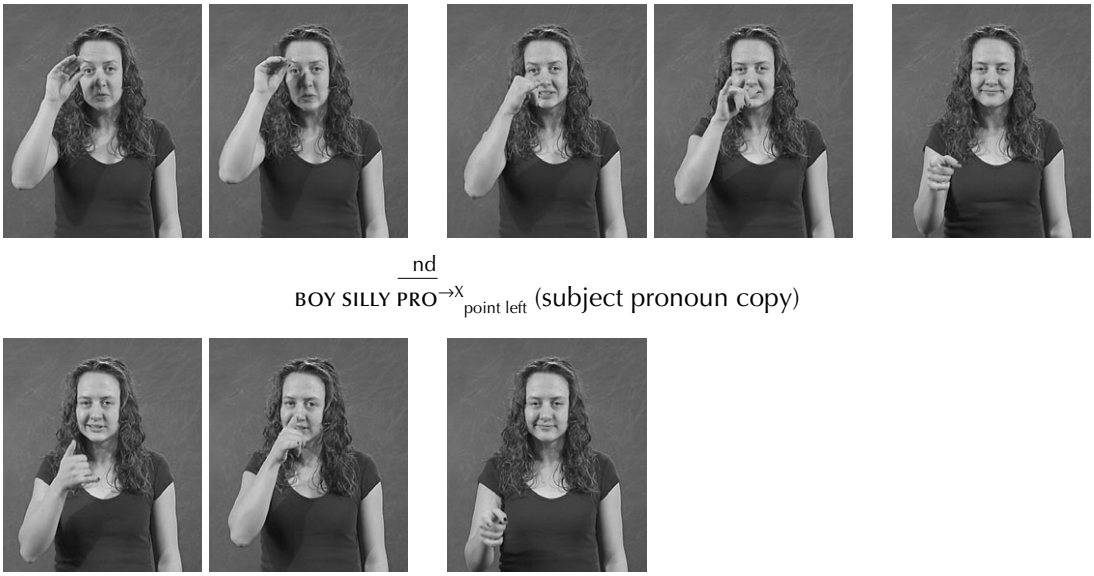


Figure 57. Sentences with intransitive verbs can include subject pronoun copy and subject omission.

The sample sentence then becomes

nd
SILLY PRO→X point left (subject pronoun copy)

Like spoken languages, ASL does not permit certain sentence structures. In ASL, the subject cannot follow the verb. Therefore, the sentence *silly boy (*VS) is ungrammatical in ASL (the asterisk in front of the sentence indicates that the sentence is not acceptable in ASL).

SUMMARY

This unit introduced the word order of ASL sentences. The most important points can be summarized as follows.

1. The basic word order of ASL sentences with transitive verbs is Subject-Verb-Object. The basic word order of ASL sentences with intransitive verbs is Subject-Verb.
2. When additions to the main clause are included, they are marked in some way. For example, if the subject is repeated as a pronoun after the main clause, the repetition will be accompanied by nodding. If topicalization is used before the main clause, the eyebrows are raised, the head is tilted, and there may be a slight pause before the rest of the sentence is signed.

3. The following chart lists the word orders that are acceptable in ASL sentences.

	Main Clause			
Topic	Subject	Verb	Object	Subject Pronoun Copy
	DOG	CHASE	CAT	
	DOG	CHASE		
		GIVE		
	DOG	CHASE		<PRO>nd
		HAPPY		<PRO>nd
<DOG>t		CHASE	CAT	
<DOG>t		CHASE	CAT	<PRO>nd
<CAT>t	DOG	CHASE		<PRO>nd

Homework Assignment 13

1. Apply object topicalization and subject pronoun copy to the following SVO sentences. What new word order do you get?

KID LOVE PIZZA
PRO-1 LOSE PAGER

2. What changes to the basic word order are applied in the following sentences, and in what order (i.e., topicalization, subject pronoun copy, subject and/or object omission)?

TERRIFIED PRO-1
I'm terrified!

<TEST>t, FAILED PRO-1
The test, I failed it!

UNIT 19

Verbs

The function of verbs in a language is to encode meaning related to action and states. There are three main categories of verbs in ASL: *plain*, *indicating*, and *depicting*. Liddell (2003a, 2003b) first introduced the terms *indicating* and *depicting verbs*. We have found them valuable for describing the different types of verbs in ASL. All linguists do not use this terminology, however. In particular, depicting verbs have been referred to as *classifier predicates*, and the handshapes associated with certain classifier predicates are called *classifier handshapes* (Supalla 1978).

Plain Verbs

Plain verbs are produced in a static location that cannot be altered without changing the meaning of the sign. The location feature is simply a part of how the sign is made, making the function of the location merely articulatory. In these signs, location does not have independent meaning. Similarly, plain verbs do not contain information about the subject or object of a sentence. Examples of plain verbs include EAT, ENJOY, FORGET, HAVE, LIKE, LOVE, PUNISH, and UPSET (see Figure 68).

Indicating Verbs

Indicating verbs are more dynamic than plain verbs. They move toward specific people, objects, or spatial locations, and in doing this, they incorporate additional information about the subject and object of the sentence. Generally, these signs move from the signer toward a person or location or from the person/location to the signer. Examples of indicating verbs include GIVE, INFORM, TELL, PICK-ON, SEND, and PAY (see Figure 69). The example illustrated in Figure 70 shows how the sign GIVE can mean either *I give to you* or *you give to me*, depending on the starting and ending locations of the sign.

The orientation of the indicating verb can also contribute information about the subject and object of the sentence. With the sign HATE (the form made with an 8 handshape), the palm faces the entity detested and the back of the hand faces the

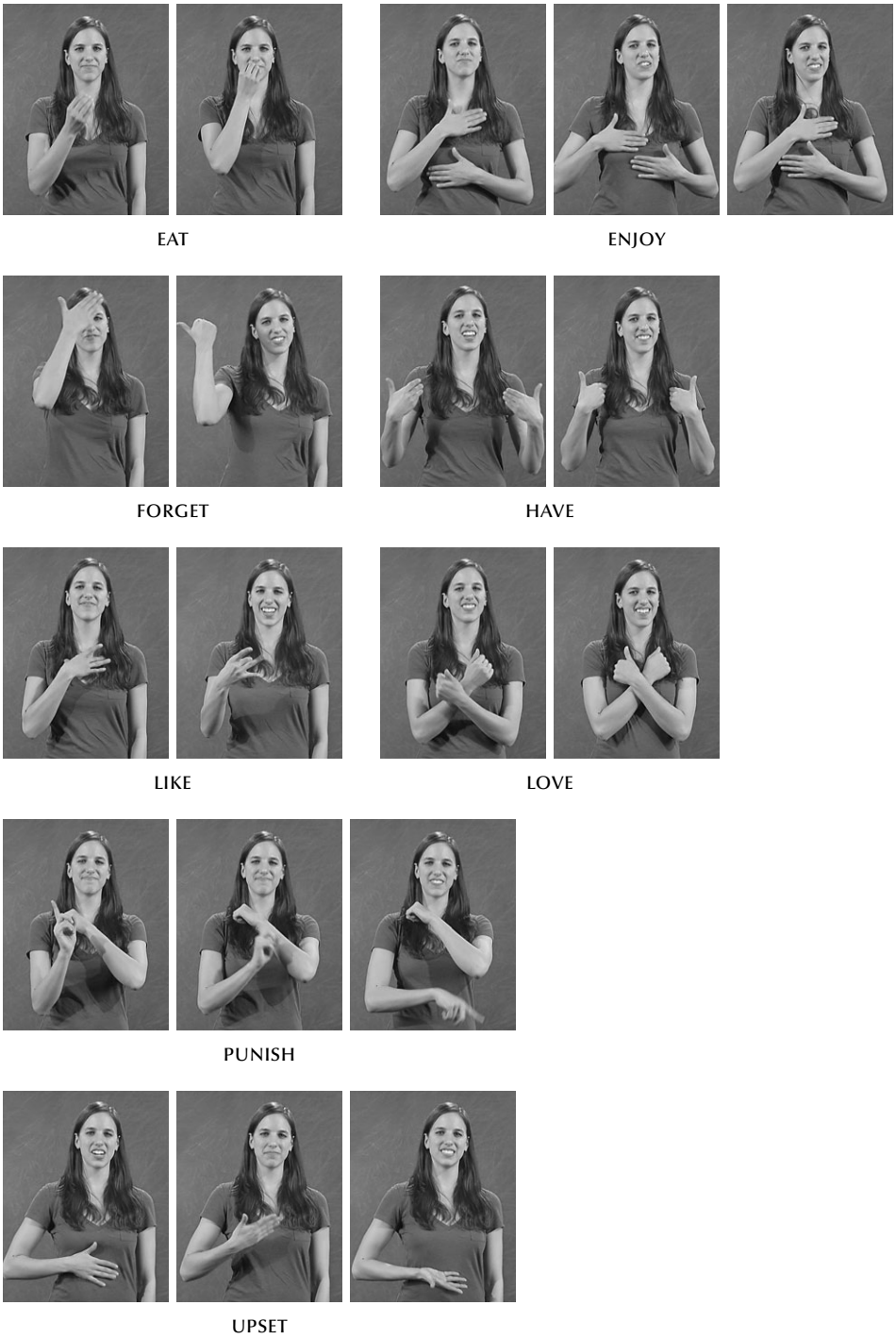


Figure 68. Examples of plain verbs.

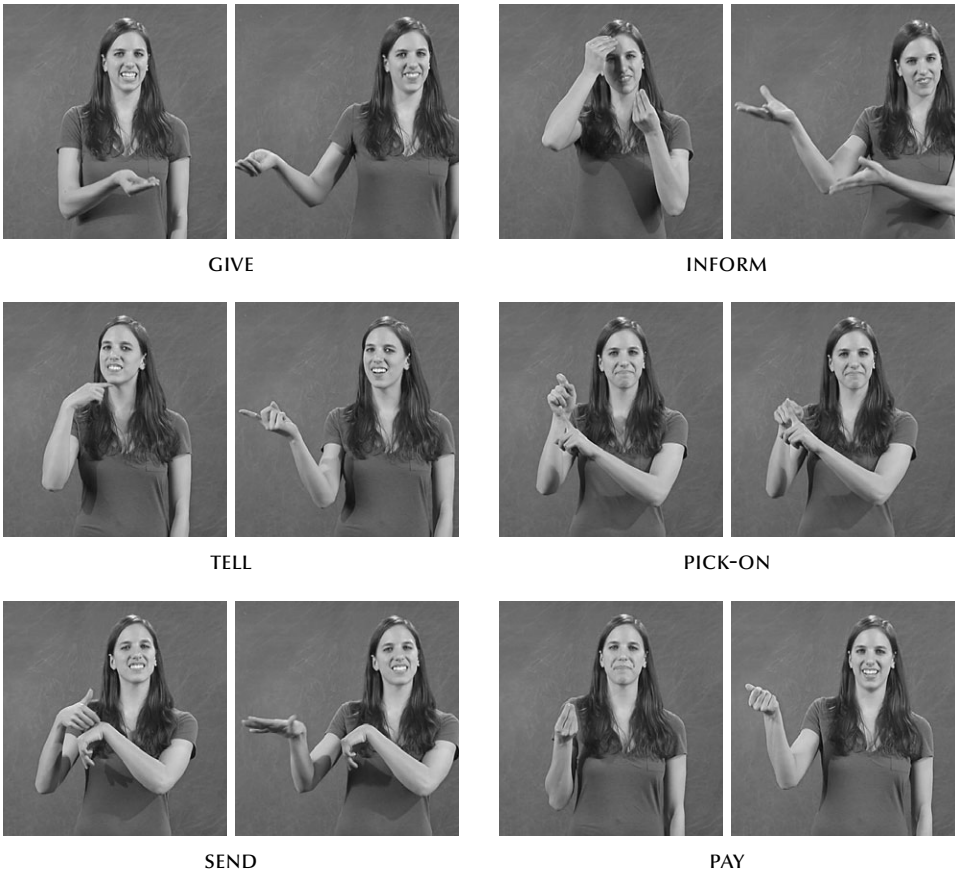


Figure 69. Examples of indicating verbs.

Figure 70. Subject and object information contained in the location of an indicating verb.

entity that is doing the detesting. In the ASL translation of the English sentence *I hate him*, the back of the hand faces the signer and the palm faces the location where the hated person has been established. Separate signs for *I* and *him* are unnecessary because the direction of the verb contributes this information. In the sentence *He hates me*, the situation is reversed (see Figure 71). For some verbs like

HATE$^{\rightarrow X}$
I hate him.

HATE$^{\rightarrow 1}$
He hates me.

Figure 71. Subject and object information contained in the orientation of an indicating verb.

SAY-NO-TO$^{\rightarrow X}$
I say no to him.

SAY-NO-TO$^{\rightarrow 1}$
He says no to me.

Figure 72. Subject and object information contained in the location and orientation of the indicating verb.

INVITE and HIRE, the first location of the verb is related to the object and the second location refers to the subject.

Orientation and location may be combined to contribute information about the subject and object. The ASL verb #SAY-NO-TO can be used to express the English sentence *I say no to him*. The signer would begin the sign near his or her body, with the palm facing the other person's location, and then the hand would move in the direction of the other person. To convey the meaning in the English sentence *He says no to me*, the orientation and beginning and ending locations of the verb #SAY-NO-TO are reversed. In this articulation, the sign would begin in the location of the other person and the palm of the hand would face the signer; the sign would end near the signer (compare the signs in Figure 72).

Indicating verbs can also add information by showing reciprocating action. These verbs are called *reciprocal verbs*. In a situation in which two people are looking at each other, they both are looking and being looked at simultaneously. The indicating verb LOOK-AT-EACH-OTHER captures this situation. Each hand represents a person. The fingers of the right hand point directly at the fingers of the left hand, thus showing how each person is surveying the other with their eyes. Another example of a reciprocal indicating verb is UNDERSTAND-EACH-OTHER. In this verb, one hand is placed near the signer's forehead, with the palm facing out. The location of the hand represents the signer, and the orientation points toward the person with whom the signer is conversing. The second hand is on the same level as the first

LOOK-AT-EACH-OTHER$^{[RECIP]X\rightarrow Y}$ UNDERSTAND-EACH-OTHER$^{[RECIP]X\rightarrow Y}$

Figure 73. Two examples of reciprocal verbs.

THROW$^{\rightarrow Y}$-$_{upward}$ THROW$^{\rightarrow Y}$-$_{downward}$

Figure 74. The di3rection of locative verbs reveals specific information.

hand, with the palm facing the signer. The location of the second hand represents the other conversant. Each hand represents a person, and the fact that the palms are facing each other indicates that the signers comprehend what the other is saying (see Figure 73).

Locative verbs are another type of indicating verb. Locative verbs are different from plain verbs like ENJOY, PUNISH, or UPSET, in which the location feature is simply a part of how the sign is made. The function of the location in plain verbs is articulatory; the location does not have independent meaning. With locative verbs, the actual direction or location of the sign contains specific meaning. A good example of a locative verb is THROW. When a signer signs the sentence JOHN THROW$^{\rightarrow}$ ROCK, the direction of the sign indicates the direction in which the object is thrown (in this case, away from the signer towards some location). The direction of the sign can vary, depending on the meaning the signer wants to convey. If the signer is talking about throwing something upward, like shooting a basketball, the direction of the sign is upward; if the signer is talking about throwing something into a trash can, the direction is downward (see Figure 74).

Other locative verbs include the sign HURT and the fingerspelled sign #HURT, in which the location shows the specific area of the body that hurts. While the location or direction of a locative verb represents a place in three-dimensional space, the handshapes of these signs do not have independent meaning. The best way to illustrate the difference is to compare the locative verb #HURT and the depicting verb USE-SCALPEL (see Figure 75). While we would say the handshape in USE-SCALPEL

#HURT USE-SCALPEL

Figure 75. The difference between locative and depicting verbs.

VEHICLE-DRIVE-BY VEHICLE-DRIVE-UP-HILL

Figure 76. Depicting verbs showing the movement of a car.

is related to a hand holding a scalpel, the handshapes of #HURT do not contribute additional meaning.

DEPICTING VERBS

The final category of ASL verbs is *depicting verbs*. What distinguishes this category of verbs is their ability to convey two types of information. Depicting verbs, like other verbs, contain information related to action or state of being. Additionally, the forms of depicting verbs represent aspects of their meaning. In the past, many of the verbs in this category were labeled classifier predicates (see box). Examples of depicting verbs include VEHICLE-DRIVE-BY, PERSON-WALK, FLAT-SURFACE, VEHICLE-DRIVE-UPHILL. The examples in Figure 76 show the movements of a car. In the first sign, the car is being driven on a flat surface and in the second sign the car is being driven up a hill.

One way to describe how the form of depicting verbs represents aspects of their meaning is through *blending* (Liddell 2003a). The concept of blending is not limited to signed languages; it is part of the general way that people conceptualize and make sense of information. For example, if two people were sitting in an office having a conversation, and one wanted to describe the street where she lived, she might set up objects on the desk as a visual representation of her street. She might use a book to represent her house, a folder to represent her neighbors' house, and a pen to represent the railroad tracks at the end of the street. Each of these real items present on the desk would be understood to represent part of the imagined "scene" of the street.

Changing Terminology

In the introduction to this book we explained that linguistics is the scientific study of languages and that science is a process for gaining knowledge. Often our initial explanations of a phenomenon are not accurate and are refined through systematic analysis. In the late 1970s the term *classifiers* was introduced to describe structures noticed in spoken languages. The definition and one proposed classifier type (predicate classifiers) introduced by Allan (1977) seemed to help explain some structures found in ASL. Sign language linguists adopted the term *classifier predicate* to describe certain types of signs in ASL. However, in the mid-1980s sign language researchers began arguing against the label (Engeberg-Pedersen and Pedersen 1985; Brennan 1986).

By the mid-1990s spoken language researchers had significantly redefined classifiers in spoken languages based on the analysis of many languages. The new definition proposed by Grinevald (1996) no longer adequately described the structures found in ASL, especially signs that express motion, location, handling, and description. Sign language researchers have proposed several labels for describing these types of signs: *polycomponential verbs, polymorphemic verbs,* and *depicting verbs*. We have selected *depicting verbs* as this seems to offer the best description of how these signs function.

This brief review helps explain why we no longer use the label *classifier predicates* to describe certain signs and are now referring to them as *depicting verbs*. It is quite possible that in ten or twenty years, after additional systematic analysis of the language, an even more accurate label will emerge. That is why linguistics is so exciting—we are always expanding our knowledge about a language.

Since ASL is a visual language, ASL users take advantage of this same type of conceptual blending by using the fingers, hands, arms, body, and face as the real "objects" representing scenes. To describe a rocket taking off into space, one could use a pen placed on end moving upwards from the surface of the desk; in ASL, signers use a 1 or R handshape instead of the pen. The handshape represents the shape and orientation of the rocket, while the locations of the hand in signing space represent where the rocket is traveling, and the style and direction of the sign's movement represent how the rocket is moving (quickly, jerkily, bouncing, arcing, etc.). Thus, all the features of the form of the sign represent aspects of the event the verb describes through blending.

The choice of how to depict an event or thing in a blend includes what size and shape will represent it most effectively based on what one is trying to communicate. For example, a signer has several ways to show a person walking: by pointing the index finger up to represent a whole person and moving the finger across the signing space; by pointing two fingers down to represent the person's legs and alternatingly moving the fingers forward as the hand moves; or by bending the arms at the elbows and swinging them while rhythmically bouncing the shoulders and head to represent the person's upper body while walking (see Figure 77).

Depicting verbs can be divided into three main types. The first type is used to show where something is in space. Suppose a person wants to share a story about a car ride. The narrator would begin by establishing the fact that he has a car. This

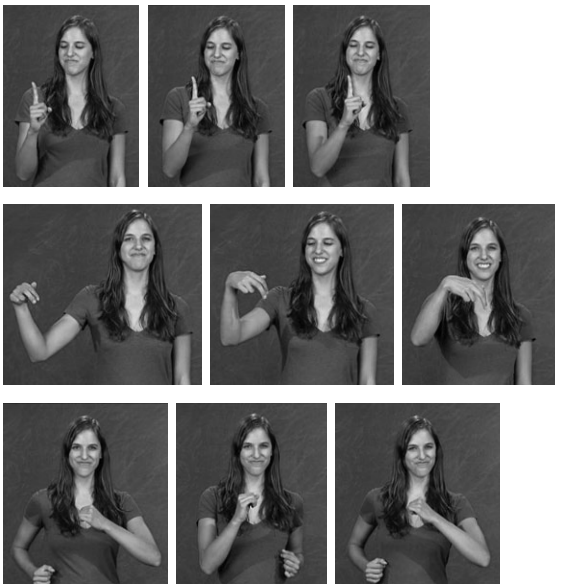
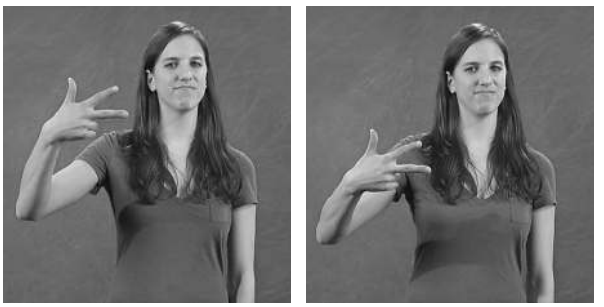


Figure 77. Three possible ways to depict a person walking.



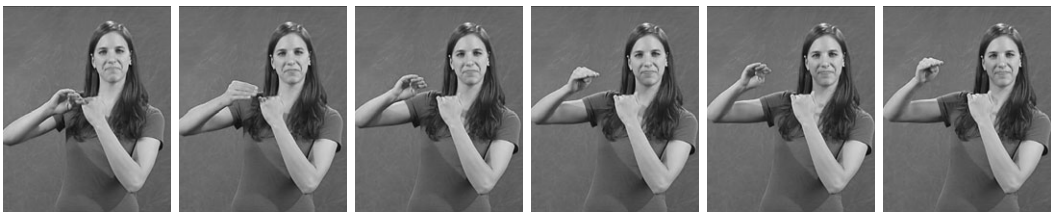
VEHICLE-BE-AT$^{\downarrow L1}$

Figure 78. A depicting verb showing location in space.

is accomplished by using a depicting verb to locate the car in space. The verb is made with a short downward movement followed by a hold, and it is transcribed as VEHICLE-BE-AT$^{\downarrow L1}$ (see Figure 78). The superscript ↓L1 indicates that this depicting verb is placing an entity at a specific location using a downward movement.

The second type of depicting verb shows what something looks like, how it is shaped, or how objects are arranged. Returning to the story about the car ride, the narrator may want to describe the steep mountain that he traveled up. A depicting verb showing the mountain surface could be used. This type of depicting verb differs from the first in that one hand is kept stationary while the second moves away from it. The movement of the second hand shows the steepness of the hill the driver climbed, and it can be expressed as FLAT-SURFACE-EXTEND-UPWARD$^{\downarrow L1\text{-}L2}$. The superscript ↓L1-L2 means that the sign moves from a starting location to an ending location. This type of verb is dynamic in that it can provide two types of informa-

FLAT-SURFACE-EXTEND-UPWARD$^{\downarrow L1\text{-}L2}$



BUMPY-SURFACE-EXTEND-UPWARD$^{\downarrow L1\text{-}L2}$

Figure 79. Depicting verbs can fully describe an object.

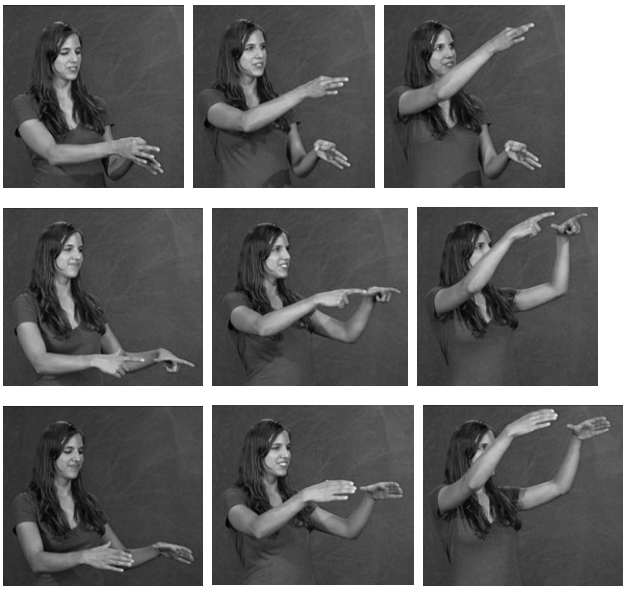


Figure 80. Depicting the size and shape of columns.

tion—what the surface looks like and where it extends. If the driver came to an unpaved portion of the road, the sign could be altered to reflect this (see Figure 79).

Signers also use this second type of depicting verb to describe how things look, including different sizes and shapes. The three examples in Figure 80 all depict columns. The different handshapes represent three different sizes of column, either actual different sizes or differences based on perspective.

The third type of depicting verb shows movement or action. Continuing the example of the narrator talking about his car, he would sign VEHICLE-DRIVE-TO$^{\downarrow L1\text{-}L2}$

VEHICLE-DRIVE-TO$^{\downarrow L1\text{-}L2}$

VEHICLE-WIND-DRIVE-TO$^{\downarrow L1\text{-}L2}$

Figure 81. Depicting verbs showing the movement of a car.

Figure 82. Depicting a person drinking from a teacup.

to indicate that the car moved from point A to point B. As was the case with the second type of depicting verb, this third type can also reflect the path of the motion. If the car traveled on a winding road, the signer could express this as VEHICLE-WIND-DRIVE-TO$^{\downarrow L1\text{-}L2}$ (see Figure 81).

This category of depicting verbs, those that show action, includes depictions in which signers use the whole upper body—hands, arms, face, etc.—to represent people's actions. The example discussed earlier of ways to depict a person walking (Figure 77) falls into this category. Other examples include signs depicting people holding and using objects, such as drinking from a teacup, as shown in Figure 82.

Some depicting verbs have been used widely and consistently over time in the Deaf community, to the point that they have become *lexicalized*. That is, they have assumed a meaning that is separate from the morphemes that make up the sign. They can function like plain verbs or as nouns in ASL utterances. For example, the sign KEY is clearly based on the depiction of a key being placed into a lock and

Figure 83. Depicting a person opening a door with a key.

<PRO-1.poss KEY WHERE>wh
Where is my key?

Figure 84. The noun KEY lexicalized from a depicting verb.

turned. One can express the action as a depicting verb, or the form can be used as a lexicalized noun in a sentence like <PRO-1.poss KEY WHERE>wh, meaning "Where is my key?" (See Figures 83 and 84.) Other examples of depicting verbs that have become lexicalized include DRINK, PACK, and FUNERAL. ASL also has some lexical signs that are understood based on metaphorical depiction, such as FALL-IN-LOVE and TRUST.

Supplemental Readings

"Indicating Verbs and Pronouns: Pointing Away from Agreement," by Scott K. Liddell (2000); pp. 377–389

"Body Partitioning and Real-space Blends," by Paul G. Dudis (2004); pp. 390–400

References

Allan, K. (1977) Classifiers. *Language* 53: 285–311.

Brennan, M. 1986. Linguistic perspectives. In *Signs of life: Proceedings of the second European congress on sign language research*, ed. B. T. Tervoort, 1–16. Amsterdam: Dutch Foundation for the Deaf and Hearing Impaired Child, Institute of General Linguistics, University of Amsterdam, and Dutch Council of the Deaf.

Engberg-Pedersen, E., and Pedersen, A. 1985. Proforms in Danish Sign Language: Their use in figurative signing. In *SLR '83: Proceedings of the III international symposium on sign language research*, ed. W. Stokoe and V. Volterra, 202–209. Silver Spring, MD: Linstok Press; Rome: Instituto de Psicologia CNR.

Grinevald, C. 1996. A typology of classifiers: Issues and perspectives. Paper presented at the Third Australian Linguistics Institute, Canberra.

Liddell, S. K. 2000. Indicating verbs and pronouns: Pointing away from agreement. In *The signs of language revisited: An anthology to honor Ursula Bellugi and Edward Klima*, ed. K. Emmorey and H. Lane, 303–320. Mahwah, NJ: Erlbaum.

Liddell, S. K. 2003a. Depicting verbs. In *Grammar, gesture, and meaning in American Sign Language*, 261–316. New York: Cambridge University Press.

——. 2003b. Indicating verbs and real space. In *Grammar, gesture, and meaning in American Sign Language*, 97–140. New York: Cambridge University Press.

Padden, C. 1988. *Interaction of morphology and syntax in American Sign Language*. New York: Garland Publishing.

Supalla, T. 1978. *Structure and acquisition of verbs of motion and location in American Sign Language*. PhD diss., University of California, San Diego.

Homework Assignment 15

1. Watch the stories "Tobacco" and "Oklahoma City Bombing" on the DVD. Find six examples of plain verbs.

2. Find six examples of indicating verbs from the same stories. Provide an English translation of the sentence each verb appears in.

3. Watch "Cards" and "Reunion" on the DVD. Find six depicting verbs. Identify what type of depicting verb each represents—one that shows where something is located in space; one that describes something's shape or how it is arranged; or one that shows movement or action.

UNIT
20

The Function of Space

In this unit, we will discuss how space is used in a variety of different ways in ASL. Some functions of space are phonological, that is, they are a basic part of how the sign is produced. Some functions of space are morphological in that they are concerned with building new signs. Still other functions of space are syntactic, that is, they are concerned with the structure of sentences. Since space is used in all of these ways in ASL, discussing the function of space provides a nice framework for reviewing many of the concepts that were introduced in previous units. Karen Emmorey (1999) has described some of the key functions of space in ASL and we will summarize her discussion here (see the Supplemental Readings for the full article).

One function of space is simply articulatory. Remember that signs are composed of movement and hold segments and that segments include a bundle of articulatory features. Those features include handshape, location, orientation, and nonmanual signals. The location of the sign (i.e., where the sign is made) may just be part of how the sign is made. As we saw in the phonology units, location is a part of all signs. The location may be a place on the body. For example, BORED is signed on the nose, FEEL is signed on the chest, and DIAPER is signed at the waist. Location may also mean the signing space surrounding the signer—WHERE is made in the space in front of the signer's dominant shoulder, while SHOES and COFFEE are made in the space in front of the signer's torso. Each sign is made in a particular location, and that location is part of the structure of the sign, but the location itself does not have independent meaning. Sometimes, changing the location of the sign changes its meaning, as in the signs SUMMER, UGLY, and DRY, and in this case, space is used to indicate phonological contrasts.

Space can also be important in the expression of morphological meaning in ASL. While verbs in spoken languages are modified to show person and number by adding suffixes to a word stem, sign languages accomplish this partly with the use of space. We see this morphological use of space in verbs such as GIVE, for example. In the ASL sentence meaning "first-person-give-to-second-person" (PRO-1 GIVE PRO; in English, *I give you*), the hand moves from the space associated with the first person (the signer) to the space associated with the second person (the addressee). In the

sentence meaning "second-person-give-to-first-person" (PRO GIVE PRO-1; *you give me*), the hand moves in the opposite direction. We see the morphological use of space also in what are known as aspectual markers. For example, we can show that someone is giving continually or over and over again by the use of movement and space.

Space is also used for referential functions. That is, a location in space can be associated with a person or thing. This may be accomplished by producing the sign for the person or thing and then indexing (pointing to) a particular location in space. Signers may continue to refer to this location during the conversation by repeated indexing. Pronouns in ASL make use of indexing in a similar way. A pronoun sign can be directed at a specific point in space that is understood to refer to the person who has been associated with that location.

ASL signers use space to express locative information. We see a locative function of space in depicting verbs and locative verbs. In this case, space provides information about the location of a person or object in a three-dimensional framework. For example, when a signer is talking about a car moving from one place to another, the sign could be made with a 3 handshape that moves from one part of the signing space to another. Just as the handshape is understood to represent the car (through a conceptual blend), the locations in the signing space are understood to represent the locations where the car started and ended.

Space can also be used to indicate a signer's frame of reference. For example, within a relative frame of reference, a signer usually describes a scene from his perspective. Some signs have intrinsic features (for example, cars have identifiable fronts and backs), and we saw that depicting verbs can make use of the signing space to visually represent these features through blending. Signers also can make reference to absolute frames of reference, as when they use the signs EAST, WEST, NORTH, and SOUTH.

Finally, space in ASL can be related to narrative perspective. In the course of telling a story involving different characters, a signer may assume the role of one of the characters. One of the ways the signer switches to a different role is through the use of space—the signer's body may shift to one side, the eye gaze may shift, and the position of the head may change.

As we can see, space has many functions in ASL. In the previous units, we took a closer look at each of these functions. Now that you have learned about them all, you can take a step back and begin to look at ASL from a more holistic viewpoint, incorporating all of these different functions and features, often simultaneously, to create a rich and complex language.

Supplemental Reading

"The Confluence of Space and Language in Signed Languages," by Karen Emmorey (1999); pp. 348–376.