Chapter 7

SERIAL VERB LANGUAGES
AND
THE FATE OF COMPLEXITY

1. Introduction

A PROPOSITION may become so closely related to another that its own identity as a PROPOSITION/Clause is ignored, and it is taken as representing a term in the other. When one attempts to understand the behavior of languages as they give expression to the more integrated end of the scale of propositional complexity, we find that the syntax becomes more diverse. It is as if the semantics of the integrated PROPOSITION becomes increasingly pressured as its relation to the host PROPOSITION is tightened until finally portions of its content are split off and lost, leaving a remainder. One stage in that semantic compac-tion, a Rubicon from beyond which there is no return, is that of ‘nominaliza-tion’. Nominalization does not itself require this semantic and syntactic defor-mation, but nominalization does appear to be a prerequisite for this further change to occur. The presence of such a condition may be recognized grammatically in a large number of formal ways (cf. Spruiell 1991); but behind the forms, one may in general identify two trajectories in that process. If we assume that simple PROPOSITIONS are arrangements of EVENTS, PARTICI-PANTS, and PERIPHERAL material (e.g. locations, times, manners, etc.), then we may broadly expect the result of this integration to be either the syntactic manifestation of a PARTICIPANT or of some PERIPHERY. In what follows we shall briefly examine the diachronic fate of sentential complexity in serial verb languages.

2. Serialization versus chaining

Among the ways of typing languages in addition to word order classes, there exist divisions according to how the relations of clause linkage are implemented. Thus, there are the so-called switch reference languages, clause chaining languages, serial verb languages, etc. Some of these types may overlap, but there is no necessary connection. For instance, clause chaining languages may frequently also be thought to exhibit switch reference; but this is not constant, since Newari is considered to be a clause chaining language,
but is not a switch reference language (Genetti 1988). And a language like Alabama contains the mechanism for switch reference, but does not exhibit the formal characteristics of a clause chaining language. The serial verb class and the clause chaining class of languages do not intersect. The latter phenomenon is associated with languages which are SOV (Haiman & Munro [1988.x] say the languages are ‘mostly verb final’), and the serial verb method of linkage appears in SVO languages. Those languages assigned to the serial verb type (Sebba 1987.209):

... are found in three geographically well-defined groups; Kwa languages of West Africa, Atlantic Creoles (those of the Caribbean and West Coast of Africa and offshore islands) and South-East Asian languages (Chinese and possibly Vietnamese).

and these are all SVO languages.

Myhill and Hibiya (1988.363) offer a general characterization of the clause chaining construction:

Clause-chaining will here be defined as the use of non-finite forms not headed by a conjunction with temporal or circumstantial meaning. Clauses headed by dependent or independent forms meaning, e.g. before, after, if, when, because, etc. are therefore considered not to constitute clause-chaining. Clause-chaining may occur in English, although it generally has a bookish ring to it as in (1):

\[
(1) \text{ Sitting down, taking out a pencil, he began to write.}
\]

This does not imply that English is thereby a clause chaining language. A language may be said to belong to that type when it “is characterized by extensive clause chaining within the bounds of a prosodic sentence” (Haiman 1988.49). Nor is a clause chaining language confined to using that device in connecting its clauses; for example, the ‘inconsequential’ clause and the conditional clause in Hua are not considered to be instances of clause chaining.

A language may be said to belong to the serial verb class if it, then has a serial verb construction (or constructions) which it frequently relies upon to link clauses. Sebba (1987.1 et passim) notes that “It is not at all clear that all authors are referring to the same thing when they speak of ‘serial verbs.’ Very few of them are actually explicit about what they mean by the term, usually applying it fairly indiscriminately to constructions in which there is a sequence of the form V NP V NP or V NP V, where V is not obviously an infinitive”. Li and Thompson (1981.594) describe such a construction in
Mandarin in this way:

We will use the term *serial verb construction* to refer to a sentence that contains two or more verb phrases or clauses juxtaposed without any marker indicating what the relationship is between them. What this means is that in Mandarin there are many sentences that all have the same form, namely, this (where NP = noun phrase, V = verb, and the NPs in parentheses are all optional):

\[(1) \ (NP) \ V \ (NP) \ (NP) \ V \ (NP)\]

but that convey different types of messages because of the meanings of the verbs involved and the relationships that are understood to hold between them. That is, the property they all share is that the verb phrases in the serial verb construction always refer to events or states of affairs which are understood to be related as *parts of one* overall event or state of affairs.

Lord (1982.282) describes an analogous function for the construction in the Benue-Kwa languages; that is, “the actions or conditions named by the component verb phrases are necessarily related as elements in a single overall event, where the second [or final, PWD] verb signals the intended result or consequence of the first [or preceding, PWD]”. And Stahlke (1970.90) had earlier remarked that “serialization presents us with a structure that behaves in some ways like a complex lexical item and in other ways like a structure containing a number of independent lexical items”. We will return to this below.

A similar condition is attributed to the clause chaining sequence. Cf. Figure 1 (Haiman 1988.50). Haiman attributes to the linkage “the relations between

\[
S_1 \rightarrow S_2 \rightarrow S_3 \rightarrow S_4 \rightarrow \ldots \rightarrow S_n
\]

Figure 1

cause and effect, protasis and apodosis in ordinary (but not concessive!) conditionals, and most generally, anteriority in temporal succession”. These suggest a listing of instances in which we may see a ‘single overall event’, which is constructed from components related by the connections cited; thus, were we to find a relation “where the event denoted by \(S_n\) does not (logically, or temporally) follow the event of \(S_{n-1}\)” (Haiman 1988.50-51), the chaining of Figure 1 is inappropriate, for the necessary bonding of events into a complex whole fails to occur. Furthermore, we see that the specific content (i.e., the
English glosses) for clause chains is as variable as is that of the serial verb constructions. Compare the Hua semantics of ‘cause and effect’, ‘protasis and apodosis’, and ‘temporal succession’ with the semantic variety in Mandarin associated with the serial verb construction, e.g. ‘consecutive’, ‘purpose’, ‘alternating’, and ‘circumstance’ (Li & Thompson 1981:595). In the broadest terms, then, the two appear to accomplish the same task in different manners in different language types (SOV and SVO).

There is one significant difference between them. Examination of the examples of the serial verb construction below will show that all the verbs in a series also share the same Agent (or subject); and in this they differ from the chaining languages, which notably allow same or different subject, and frequently track this alternation. Stahlke (1970:60) states this explicitly in describing for the Kwa languages (a subgroup of Niger-Kordofanian, a family which also contains the Bantu languages) a construction which uses “a series of verbs, all having the same structure subject”. Historically, the serial verb construction appears to be subject to semantic (syntactic) reinterpretation which has not been reported for the clause chaining languages (to my knowledge. But see Tauya [Macdonald 1988]). As a general characterization of the change, we may say that the semantic complexity of two PROPOSITIONS is lost when the EVENT/Verb is reinterpreted as representing other semantics. Khmer presents us with a canonical serial verb construction:

(1) Yŏk əŋkɔ: mɔːk dam bai
    [take uncooked.rice come cook cooked.rice]
    ‘Get and cook the rice!’

(2) Kʰnom əŋkoi ŋam bai
    [I sit eat cooked.rice]
    ‘I sit down to eat dinner’

(3) Kʰnom mɛːl siwpʰɔi ɔwi yei kʰnom
    [I read book give grandmother I]
    ‘I read the book for my grandmother’

(4) Kʰnom ɔwi tɛː yei kʰnom
    [I give go grandmother I]
    ‘I gave it to my grandmother’
The sentences of (1) - (4) are representative of the serial verb construction. One of the characteristics of such a language is the fact that English prepositions tend to gloss its verbs. Compare Khmer ។ ‘give’ with English ‘to’ and Khmer ជ: ‘go’ with English ‘to’. The blending of the verbal and prepositional syntax yields what has been called, especially in Chinese linguistics, **coverbs** (Li & Thompson 1981.360):

Coverbs function as *prepositions*: a coverb and its noun form a phrase [NB not a clause, PWD] that modifies the verb of the sentence. A coverb phrase, therefore, must always occur in a sentence with a verb. If the Mandarin coverbs are essentially prepositions, why, then, are they called coverbs rather than prepositions? The answer is simply that the class of coverbs contains words that are partly like verbs and partly like prepositions; the traditional term *coverb* was coined to avoid labeling them either verbs or prepositions. They have this mixed status because most of these present-day coverbs used to be verbs at earlier stages of the language, and many of them still have characteristics of verbs and can be used as verbs that have similar meanings. For example, the coverb ㅂ was once a verb meaning ‘face’; and 뵣 ‘with’ was once a verb meaning ‘follow’.

Some of these coverbs, may, for example, appear with a mark of aspect while functioning as a preposition (e.g. [6b]), and they may appear as an independent verb (e.g. [7b]) (Li & Thompson 1981.361 & 363-64):

(6) (a) តាន់ នៃ ឆែន-ជៃ រង-កៃៃ [they toward boat-on fire-gun]
     ‘They fired at the boat’

(b) តាន់ នៃ-ឆែ ឆែន-ជៃ រង-កៃៃ [they toward-Dur boat-on fire-gun]
     ‘They fired at the boat’

(7) (a) តាន់ មិន वध ជីៃ ណៃ [3sg with I borrow money]
     ‘S/He again borrowed money from me’
and compare these two (Li & Thompson 1981.365 & 366):

(8) Bābà  gěi  wǒ  qián
    [father    I       money]
    ‘Father gives me money’

(9) Wǒ  gěi  nǐ  dào  chá
    [I      you    pour    tea]
    ‘I’ll pour you some tea’

In sentence (8),  gěi is a verb, but in (9), it “can’t be a verb, because here it has the meaning ‘for’ and not its verbal meaning ‘give’” (Li & Thompson 1981.366). Sentence (10) is also possible:

(10) Wǒ dào  chá  gěi  nǐ
    ‘I’ll pour some tea and give it to you’

The problem clearly is as much within English as it is in Mandarin. In preverbal (before dào) position, certain verbs may be less ‘verb’ like, and in the manner of clause chains, not acquire their own aspectual values (e.g. le). But how do we, in a nonarbitrary way, declare (9) to be a simple sentence and (10), a complex one? In their own terms, languages such as Mandarin and Khmer have elements which are simultaneously verbal and non-verbal. Recalling Bella Coola, it is not always possible to decide that we have two PROPOSITIONS or one.

Where this ambiguity is absent, the result is the loss of a verbal quality and the exclusive presence of the semantics of the preposition. The condition has been reached in some of the Kwa languages described by Lord (1982). Lord (1982.279-80) presents examples from Akan (‘the major language of southern Ghana’ represented by the dialects Twi and Fanti) to show that in the 19th century, the element de was a verb meaning ‘take, hold, possess, use’:

(11) abrokirri  akoa  ni  ho,  von  iniara  vo-de
    [Europe slave is.not there they all they-possess]
von-hu
their-self]
‘In Europe there is no slave, they are all free’

(12) анома de ako-ne-aba na e-nwene berebuw
[bird use going-and-coming and it-weave nest]
‘By going and coming a bird weaves its nest’

In present-day Akan, such sentences are not possible, and (Lord 1982.281)

... de has lost many semantic and syntactic properties. It does not inflect for
tense/aspect, it has a suppletive negative [fa ‘take’], and it does not occur as an
independent verb in a simple sentence. Reminiscent of its earlier verb identity is
its occurrence before noun phrases which are in the objective form when
pronominalized. De is now an invariant, noninflecting morpheme, which
functions as a casemarking preposition rather than a verb ... As a preposition, it
introduces noun phrases in the semantic role of instrument (including means,
material, manner, and comitative relationships ...). It also marks semantic patients
...

For example (Lord 1982.281):

(13) o-de eñkrante tya duabasa
[he-DE sword cut branch]
‘He cut off a branch with a sword’

(14) o-de né nnípa foro bépow
[he-DE his men ascend mountain]
‘He ascends the mountain with his men’

(15) o-de mfonoñi bì kyèrg nè bà
[he-DE picture certain show his child]
‘He shows his child a picture’

And we see in such sentences as (16) that the same subject requirement, which
has characterized serial verb constructions is now absent (Lord 1982.282):

(16) o-de kanèa bì sli pónó nò só
[he-DE lamp certain stood table that top]
‘He stood a lamp on the table’
If two verbs were present in (16), the Agents/subjects of the former verb de and the verb sij ‘stood’ would be distinct: ‘he’ for de ‘take’ and kanéà ‘lamp’ for sij ‘stood.’ That is, the sentence would have to mean/have meant ‘He took the lamp and stood on the table’. The form now essentially transitivizes intransitive verbs by introducing patients. The fact that such expressions as (16) are possible further indicates that a serial verb construction (at least as characterized) is absent.

The changes in Akan in which a verb begins to appear as a grammatical element and less as a lexical one parallels the pattern of coverbs in Mandarin. And this suggests that what constitutes a serial verb ‘construction’ may not be discrete; that is, there may be a serial verb phenomenon within which we find a shape described by Li and Thompson above as well as the array of related forms, i.e., the coverbs/prepositions and others standing between the two extremes of complexity and simplicity. A serial verb language is not, then, just one which contains a serial verb construction, and a precise identification of such a language will be difficult. Sebba (1987.86-87) restates “the accepted criteria” for serial verb constructions and, hence, a serial verb language:

(a) They have only one overtly expressed (syntactic) subject;

(b) They contain two or more verbs without overt markers of coordination or subordination;

(c) The actions expressed by the verbs are either simultaneous or consecutive, and all verbs are interpreted as having the same tense;

(d) Negation, whether marked once or more than once, applies to the whole setting;

(e) Tense, aspect, mood and polarity (or whichever of these a particular language has) are either marked only once in the string, or else each verb in the string is marked as having the same tense, aspect, mood and polarity as V₁;

(f) Either: the semantic subject of Vᵢ is the subject of Vᵢ₊₁, or: the object of Vᵢ is the semantic subject of Vᵢ₊₁.’

The formal criteria ascribed to the serial verb construction fail, however, to
discriminate between (17), which is a serial verb construction, and (18), which is not (Sebba 1987.109). The source is *Sranan*, “a creole language which has relatively low status in comparison with Dutch, the language of government and education in Surinam, with which it had been in contact for three centuries” (Sebba 1987.vii):

(17) Kofi naki Amba kiri  
[Kofi struck Amba dead]  
‘Kofi struck Amba dead’

(18) Kofi naki Amba kiri en  
[Kofi struck Amba kill him/her]  
‘Kofi struck Amba and killed her’

Sebba (1987.109) reports that speakers describe the contexts of these utterances in different ways:

Although there might be circumstances under which either of these would be an equally accurate description of events, informants agree that ... [(17)] describes a single action, viz. Kofi striking Amba a lethal blow, whereas ... [(18)] describes a series of events Kofi struck Amba, possibly several times, killing her.

This suggests that an understanding of serial verb expressions may depend more upon their semantics than upon their form (which can be quite variable). On one side, the construction differs from coordination in how the content is chunked, i.e., as one element or as several (two or more). Once this semantic cohesion is imposed, the result may then historically follow the path described above, in which the chunk is perceived as internal to a PROPOSITION as opposed to constituting an additional one. This chunking is perhaps the crux in understanding the syntactic presence of nominalization, and it occurs again in the creation of complementisers.

In serial verb languages such as those of the Kwa group, verbs other than ‘take’ may lead to semantic/syntactic changes in which PARTICIPANT marking is not the outcome. The verb *be* ‘say’ in *Ewe* (another Kwa language spoken in Ghana and Togo) may function in the serial verb construction (Lord 1982.179):

(19) (a) mɛ-wɔ-e  
[I-do-it]  
‘I did it’
In (19b) the sequence may be glossed in a serial verb manner (as direct speech) or in a non-serial verb manner (as indirect speech). But in some instances, the former is not possible, and the element be begins to resemble a syntactic complementiser (Lord 1976.179-80):

(20) (a)  me-gblɔ-e
[I-say-it]
‘I said it’

(b) *me-gblɔ me-wɔ-e

(c) me-gblɔ bé me-wɔ-e
[I-say I-do-it]
‘I said that I did it’

(21) me-di’ bé máple awua ðewó
[I-want I-SBV-buy dress some]
‘I want to buy some dresses’

Sentence (21) has now nothing to do with saying, e.g. ‘I said I want to buy some dresses’ or ‘I want to say I’m buying some dresses.’ As Lord (1976.179) remarks:

In a number of languages a ‘that’-complementizer is homophonous with the verb ‘say’ ... This homophony is not accidental; the word ‘say’ has been reanalyzed as a grammatical marker introducing object complements after verbs of saying and verbs of mental action. In the reanalysis process the verb has lost semantic, morphological and syntactic properties, and survives as a grammatical morpheme marking the relationship between clauses. In some languages the use of the marker has been extended further to introduce other types of subordinate clauses such as purpose, reason, conditional, and even relative clauses.

Sentence (22) is an example of the use of be in a purpose clause (Lord 1976.185):
3. **The second dimension**

We have now seen several examples of the reinterpretation of verbs such that semantic and syntactic complexity has disappeared. There are instances in which the complexity remains, while the PROPOSITION acts as if it were simple. In such examples as (21) and (22), especially, syntactic complexity continues to exist, but the clause behaves as if it were simple; that is, it exhibits the characteristics of chunking: outwardly simple, inwardly complex. We turn now to consider briefly the semantics which allows that chunking to occur, but in place of examining it in syntax, we will take the example of English articles.

Consider these sentences, which differ mainly by the presence and absence of an article:

(23) (a) I’m boss. Do what I say.
    (b) I’m the boss. And you’re not.

(24) (a) I am woman. Hear me roar! [Helen Reddy]
    (b) I am a woman.

(25) (a) Is it animal, vegetable, or mineral?
    (b) Is it an animal, a vegetable, or a mineral?

(26) (a) Marvin is Canadian.
    (b) Marvin is a Canadian.

The opposition between the non-use of an Article and its use may be, respectively, that of **concept** versus an **object**, the first being “constituted by the attributes represented” (Burton-Roberts 1976.429) therein and the second being ‘an individual’. But how, then, can we understand the apparent claim that to **play golf**, to **find employment**, or to **study English literature** involves turning our efforts to a ‘concept’ (because there is no Article, i.e., there is no to **play the golf**, to **find the employment**, etc.) rather than an ‘object’:

(27) (a) He played golf yesterday.
    (b) He played the golf yesterday.
(28) (a) He played the golf I’d always wanted to play yesterday.
   (b) He played golf I’d always wanted to play yesterday.

How is one more ‘conceptual’ than ‘objective’?

(29) (a) %Marvin is doctor.
   (b) Marvin is a doctor.
   (c) Marvin is doctor here, not me.

Sentence (29c) is perfectly meaningful English, if strange. What is lacking is a context to which it is appropriate. Hearing (29c), we get the sense that Marvin is the designé; recognition seems to be involved. Perhaps, there is some social requirement that there be a fool in the group, and the speaker has been mistakenly assumed to be filling that role. She corrects that impression with (29c). To see the sense of ‘designé’ we might contrast such sentences with those roles in which designation is impossible. Roles to which one accidently falls into, or those to which one willingly enters might serve. Compare these sentences:

(30) (a) ?You’re draftee here, not me.
   (b) ?You’re paraplegic here, not me.
   (c) ?You’re shmuck here, not me.

Being a draftee, a paraplegic, etc. are not conditions which are designated; they are forcibly entered into, accidentally entered into, etc., but not designated as such. Occupations such as doctor, mechanic, and busdriver fill this requirement as well. Cp. (29c). But notice that (29c) may be said by someone who is in fact a doctor and uttered in a context in which the speaker is off-duty. Here, it is not so much the fact of representing the profession as it is being recognized as the profession-designé in this context.

Now consider these successful and troubled sentences:

(31) (a) He spent money $for two years/%in two years.
   (b) He spent the money $for two years/%in two years.

The sentences of (32) alter the pattern of (un)acceptability:

(32) (a) He studied architecture $for two years/%in two years.
   (b) He studied the architecture $for two years/%in two years.
The distinction that opposes *spend* from *study* and *leak* is that the first leads to some **terminating condition** while the second indicates an activity that may continue without ever reaching some outcome. This difference is also present in *read* versus *read the book*. If I say that *I read the book*, I have reached some bounding event, e.g. reading the last page. But if I say that *I read* (or even *I read books*), no such termination is implied; it is a stopping, but not a finishing. Where the terminating condition or criterion is present, the verbal expression is called **telic**; and where it is absent, the verbal expression is **atelic**.

### 3.1 Boundaries

The **semantics of Articles and their absence is related to verbal semantics of `temporal expanse’ and `boundaries’**, e.g. that can be indicated by *until*:

(34) (a) I worked until he came.
(b) I didn’t work until he came.

Schematically, this can be represented as in Table 1:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)</td>
<td>---</td>
</tr>
<tr>
<td>(b)</td>
<td></td>
</tr>
</tbody>
</table>

**Table 1**

The boundary in (34a) **terminates** the activity, while in (34b), it **initiates** the event. *Work* is an atelic, unbounded EVENT. The telic EVENT *fall in love* in (35) presents us with a different pattern in its interaction with *until*:

(35) (a) I fell in love until she came.
(b) I didn’t fall in love until she came.

*Fall in love, die, release*, etc. are ‘stuck’ semantically as (b) in Table 2, i.e.,
Table 2

While *study* and *spend money* are like *work* in allowing both senses of Table 1, *spend the money* is like *fall in love, die*, etc. This gives us a classification as follows in Figure 2.

In Figure 2, the Table 2 EVENTS, which represent the attainment of some goal, cannot be distributed through the expanse of time which is signaled by *until* (and which precedes the EVENT) **unless those EVENTS can be interpreted as having multiple instances**, i.e., as being **iterative**. So (35a) has an unlikely potential reading that 'I fell in love over and over again until she came.' And 'I sold my stock until I was paid' has an even more unlikely existence. Note that in

(36) (a) Refugees crossed the border \( \text{until midnight} \) \( \text{for three days/in three days.} \)

(b) The refugees crossed the border \( \text{until midnight} \) \( \text{for three days/in three days.} \)

(c) The refugee crossed the border \( \text{until midnight} \) \( \text{for three days/in three days.} \)

the iteration is present in (36b) in the plural PARTICIPANT *refugees* and it is present in (36c) in the implementation of the EVENT, i.e., as multiple crossings. But in

(36) (d) The refugee didn’t cross the border until midnight.
there is one act of crossing.

Notice that in (31b) *spent the money in two years* identifies the condition/state that follows the concluding boundary. Compare the contrasting senses of *spend* in (37):

(37)  
(a) He spent the money until you came.  
(b) He didn’t spend the money until you came.

*Spent* in (37a) necessarily has the non-terminating sense of ‘squander’. It is not the case that some target sum of money to be spent was attained in (37a). But with the negative form in (37b), the terminating sense of ‘exhaust’ emerges again, in which case the goal was attained after you came. There seems not to exist a complement to Table 2, i.e.,

\[
\begin{array}{c|c}
(a) & \bullet \bullet \bullet \bullet \bullet \bullet \bullet |
\
(b) & ? | \bullet \bullet \bullet \bullet \bullet
\end{array}
\]

Table 3

Everything has (potentially) beginning boundaries, but not everything has terminating boundaries.

But what is the implication of the fact that *spend money* fits into Table 1 with the atelic EVENTS, while *spend the money* fits into Table 2 with the telic EVENTS? In (31) - (33), *for* indicated an expanse with no necessary boundary. The an *hour* or *three days* following *for* identifies the time by its extent, whereas with *in*, the time is identified by its terminating boundary. And *in* marks a condition as *until* does in (a) in Table 1. Thus,

\[
\begin{array}{c|c}
for & \bullet \bullet \bullet \bullet \bullet \bullet \bullet |
\
in & \bullet \bullet \bullet \bullet \bullet \bullet \bullet |
\end{array}
\]

Table 4

All the utterances of (31) - (33) allow the condition signaled by *for*, but only certain ones are comfortable with the ‘boundary’ of *in*. And again it is those sentences in which the EVENT as well is bounded, i.e., *spend, leak from the tank*, but not *study* and *leak*.\(^1\) Sentences (31a) and (33a) illustrate that the

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\(^1\) In *Gasoline leaked from the tank in two hours* we have the impression of some goal achieved, of some symptom exposed. Perhaps the tank had been repaired and it was being
semantics of the Article is also required for occurrence with in. And again the semantics of Articles is associated with ‘delimitation’ which is signalled by in.

The notion of ‘boundary’ may also be seen in the contrast between (29a) and (29b). That is, some NAMES appear to require ‘precision’, ‘discreteness’, or ‘formedness/ focussedness’, whether provided by the the/a in (28b) or by here, not me in (29c). The sense of ‘delimitation’ seems to extend to such lexical contrasts as boss/employee, manager/player, driver/passenger, quarter-back/linesman, chair/member, etc. The members of these pairs exemplify categories which are represented once; there is one manager, one coach, one driver, one quarterback, and one chairperson, but several employees, players, passengers, linesmen, and members. And these contrasts occur:

(38) (a) I’m ?the/a/α manager on this team, not you.
(b) I’m ?the/a/α player on this team, not you.
(39) (a) I’m ?the/a/α quarterback on this team, not you.
(b) I’m ?the/a/α linesman on this team, not you.

It appears that those categories which have a single presence allow omission of the Article; that is, in the absence of the delimitation provided by the Article, the inherent isolation/delimitation which comes from there being only one manager, quarterback, etc. can support their appearance without an Article. We may assume that this co-incidence of the Articles and such semantics is not accidental/random, but that it is a clue to what it means to use an Article or to omit it.

A semantic dimension exists in the opposition of ‘precision’, ‘delimitation’, or ‘formation’ in the opposition between the use of an article and its absence, e.g.

I. Designation of a role: He’s doctor here, not me versus He’s doctor.
II. Association of articles with the semantics of edges and boundaries: The oil leaked out of the tank in an hour versus Oil leaked out of the tank in an hour.
III. Association of articles with the semantics of uniqueness: You’re tested before being put back into service. Leakage began, but it did not empty the tank. A single drop will suffice for Gasoline leaked from the tank in two hours.
manager versus 'You’re employee.'

Figure 3 attempts to give a more concrete feel to the contrasts represented in I - III.

Form-ation

2.2 Degrees of form-ation

The semantic principle of Figure 3 is extended and amplified in examples which exemplify so-called generic expressions of the Articles:

(40) (a) Tigers are fearsome animals.
(b) The tiger is a fearsome animal.
(c) A tiger is a fearsome animal.

(41) (a) Biology is hard to learn.
(b) *The biology is hard to learn.
(c) The biology of mammals is hard to learn.
(d) *A biology of mammals is hard to learn.
(e) ?Biology of mammals is hard to learn.

Dahl (1975.99) characterizes generic expressions saying that they are used to express law-like, or ‘nomic statements’. The sense of ‘generic’, which the Articles and the Plural convey, is not, however, an invariant and derives from the context in which such forms appear, i.e., the meaning of ‘generic’ is sensitive to the precision of context:

(42) (a) ?Tigers frightened me yesterday at the zoo.
(b) The tiger frightened me yesterday at the zoo.
(c) A tiger frightened me yesterday at the zoo.
In (42), the generic senses of the italicized portions of (40) are lost, and we feel them as appropriate statements concerning individual animals. The ‘loss’ of imprecision in the following semantic context seems to disqualify a in the generic usage but not the, nor the absence of an Article with the Plural:

(43) (a) *Tigers* live in Asia and Africa.
(b) *The tiger* lives in Asia and Africa.
(c) ?*A tiger* lives in Asia and Africa.

(44) (a) I’m afraid that *tigers* will become extinct.
(b) I’m afraid that *the tiger* will become extinct.
(c) ?I’m afraid that *a tiger* will become extinct.

(45) (a) The tiger eats *antelopes.* (generic or not)
(b) The tiger eats *the antelope.* (generic or not)
(c) ?The tiger eats an antelope.

EVENTS such as *lives in Asia and Africa, become extinct,* and the context *The tiger eats* do not permit a plus a Noun in the generic sense. Notice that if the habitual form *eats* is replaced with the form *ate,* which designates a historically unique EVENT, then the senses shift:

(46) (a) The tiger ate *antelopes.*
(b) The tiger ate *the antelope.*
(c) The tiger ate an antelope.

Sentence (46c) is now possible, but it can have only a non-generic interpretation. Sentence (46b) is still possible, but it now is vague in the sense of Smith 1977, and signals either a generic-like meaning or a non-generic one, but more likely, the non-generic. Sentence (46a) now is also less generic than (45a). *Antelopes* points to some group of antelopes filled with further undefined individuals as easily as it evokes the generic sense as in (45a). How we hear it seems to hinge on whether we hear *the tiger* as generic or not.

Of the three possibilities (*a, the,* or the Plural with no Article), *a* seems to point out an individual more sharply than does the Article *the* or the Plural form alone. Compare:

(47) (a) *A tiger* is living in my garage.
In each of the sentences of (47), the context has been altered from (43c), (44c), and (45c) to indicate a more well-defined, precise circumstance, and a is improved in each case; but a (and the and the Plural with no Article) has lost the sense of generic, as in (42c).

A appears to be the semantically ‘least generic’ of the three forms in the sense that it is most sensitive to contextual interference and also in that it more cleanly delineates a PARTICULAR than does the or the Plural with no Article. The Article a appears to indicate a PARTICULAR which is NON-IDENTIFIABLE, and because it does not itself signal why that PARTICULAR is NON-IDENTIFIABLE, it can vary across the range of ‘specific’ to ‘nonspecific’ to ‘generic’, all the while keeping its basic sense intact.

The Plural form (without the Article the) is, for count Nouns, what the Article-less singular form is more mass Nouns. That is, this proportion exists:

<table>
<thead>
<tr>
<th>Article</th>
<th>Article-less</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count</td>
<td>the Noun</td>
</tr>
<tr>
<td>Mass</td>
<td>the Noun</td>
</tr>
</tbody>
</table>

As seen in the contrast between

(48) (a) Refugees crossed the border for three days/in three days.
(b) The refugees crossed the border for three days/in three days.

the Article-less Plural form of (48a) clashes with the boundary of in three days. The analogous contrast is found with mass Nouns in the opposition between (49a) and (49b):

(49) (a) Gasoline leaked from the tank for an hour/in two hours.
(b) The gasoline leaked from the tank for an hour/in two hours.

And in

(50) (a) I ate peanuts/drank tea while I watched TV.
(b) I ate the peanuts/drank the tea while I watched TV.
the peanuts/tea are more likely to be entirely consumed in (50b) — the boundary — than in (50a).

While mass Nouns accept the Article *the*, they do not occur with *a* (except in certain instances, e.g. *a beer*):

(51)  
(a) I ate popcorn.  
(b) I ate the popcorn.  
(c) *I ate a popcorn.

(52)  
(a) I lost money.  
(b) I lost the money.  
(c) *I lost a money.

And although we know it as a truism, it bears repeating because of the parallelism with (51) and (52) that the same pattern occurs with Plural count Nouns:

(53)  
(a) I saw refugees crossing the border.  
(b) I saw the refugees crossing the border.  
(c) *I saw a refugees crossing the border.

Because *a* indicates a PARTICULAR, it contradicts the content of Plurality (i.e., (53c)), and because *a* indicates a PARTICULAR, it is incompatible with the semantics of Mass. In the same way, (51c) is helped by a classifier, so is (53c):

(51)  
(d) I ate a box of popcorn.

(53)  
(d) I saw a group of refugees crossing the border.

This behavior of the Articles indicates that

(i) *a* establishes a PARTICULAR, but that  
(ii) *the* establishes a (nonce) DOMAIN — which may have only one member since it is IDENTIFIABLE, and if so, it also establishes a PARTICULAR.

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2 If (49a) with *in two hours* is acceptable, it seems to connote a sense of ‘managed to’ or ‘succeeded in’. The ‘goal’ implicit here in these senses may represent the ‘boundary’.
The DOMAIN may be undifferentiated, fractured into multiple numbers, or it may contain only one. **The degree of differentiation (or precision) in the DOMAIN appears to be inversely related to the content of ‘generic’ and directly related to the precision of the context** (e.g. identified times, places, and unique events). DOMAINS are always IDENTIFI-ABLE, and it is the circumstance of what we know at the time through which the Noun-qualified-by-*the* comes to specify a DOMAIN of only one member. This explains (i) why *the* appears with Mass Nouns (but *a* cannot) and (ii) why *the* appears with Plural count Nouns (but *a* cannot).

Compare also **the ability of *the* to create collective** (plural) Nouns from Adjectives:

(54) (a) The good, the bad, and the ugly  
(b) Lifestyles of the rich and famous

Such creations take plural agreement:
4. Conclusion

This completes a scale from *a*-established PARTICULARS to *the*-invoked DOMAINS along which content is increasingly formed, delimited, and shaped. Cf. Figure 4.
Appendix

Examine the following data from English and explain why sometimes *it* can refer to an individual and why sometimes *it* cannot and a personal pronoun, *he* or *she*, is necessary (Declerck 1983). The response requires you to understand the senses of the remarks by A (or A₁ or A₂) using the integrating image of English semantics and grammar which has been developed in class. In order to answer this question, your reactions to the combinations should agree with the judgments provided. For example, in (1), if A says either A₁ or A₂, then response B₁ should sound normal (%) to you, but B₂ should sound a bit off, somehow less normal than the B₁ response.

It has been observed that there is an alternation between the pronoun *it* and the pronouns *he* and *she* (in the singular):

(1)  (a)  A₁:  Who’s that on the front porch?
     A₂:  There’s someone on the front porch.
     (b)  B₁:  %It’s Elmo.
     (c)  B₂:  He’s Elmo.

(2)  (a)  A₁:  Who’s the man in the kitchen?
     A₂:  There’s a man in the kitchen!
     (b)  B₁:  %It’s the plumber.
     (c)  B₂:  He’s the plumber.

(3)  (a)  A₁:  Who’s Robert?
     A₂:  I don’t know who this person Ronny is you’re talking about.
     (b)  B₁:  %It’s my best friend.
     (c)  B₂:  He’s my best friend.

In (1) - (3), both question A₁ and statement A₂ have the same effect. In each example, A₁ and A₂ are both compatible with the B₁ response as in (1) and (2), or neither fits with the B₁ response, as in (3). Likewise, both A₁ and A₂ are suitably matched by the B₂ response as in (2) and (3), or they are both mismatched with the B₂ answer as in (1). Formal distinctions will not work too well in understanding this. Compare the A₁ question of (2) with the question of (4) and its possible answers:

(4)  (a)  A:  Who’s the murderer?
(b) B₁:  ꙹIt’s the plumber.
(c) B₂:  %He’s the plumber.

If the responses of (3) and (4) stand as marked, ꙹ or %, then part of the answer to what it means to choose it or she/he must lie in the difference in the respective who-questions of (3) and (4) — and in the A₂ statements of (1) - (3). Contrasts such as the following may also be helpful to see what is going on:

(5) (a) A:  Who’s your friend here [nodding towards the person standing next to B]?
(b) B₁:  %It’s my mother’s brother.
(c) B₂:  ꙹHe’s my mother’s brother.

(6) (a) A:  Who’s your best friend?
(b) B₁:  %It’s my mother’s brother.
(c) B₂:  %He’s my mother’s brother.

What might the superlative have to do with this?