Nameheads*

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Proper names often have shorter variants, e.g., the Boston Common = the Common, New York City = New York. A description of this phenomenon is proposed that decomposes it into four sub-processes: Category Ellipsis, Location Ellipsis, Appellation Formation, and Explicit Metonymy. Discussion focuses principally on the former two processes, which produce "nameheads"—briefer alternations of proper names that preserve the naming function. It is argued that the name shortening processes (a) operate in a lexical domain; but (b) are non-grammatical. An extra-grammatical analysis of the processes is outlined.

Many proper names have corresponding longer and shorter forms, for example, the city named New York City can also be called New York. The correspondences between these alternate name forms are both general and productive, but descriptively they are at least somewhat problematic. The present paper addresses this descriptive problem, exploring various options within the bounds of standard grammatical theory (e.g., Chomsky, 1965). On a variety of technical grounds, these options are found wanting (i.e., formalizing the name correspondence as a rule of grammar requires innovations in and weakening of grammatical theory that are otherwise unmotivated.).

At the same time, further properties of the name form alternations suggest that they can be straightforwardly assimilated to such recognized extra-grammatical processes as adjective ordering (Bever, 1970). The statement of such processes typically refers to properties beyond the purview of grammar—for example to gradients of classification and to problem solving experiences like insight. The name form correspondence shares these diag-

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nostic properties. Hence, treating it as an extra-grammatical process has the effect of saving various grammatical principles by capturing various behavioral generalizations.

At the end of the paper, an extra-grammatical analysis of name alternations is outlined. Theoretically this move has the consequence of removing a difficult descriptive burden from the theory of grammar and of indicating how the cognitive basis for human behavior and experience can complement and augment specifically grammatical knowledge. Methodologically it urges that not all linguistic distributional data must—or even can—be uncritically adduced to purely grammatical descriptions (see Carroll, Bever, & Pollack, 1981).

1. SOME THINGS PEOPLE KNOW ABOUT NAMES

In the example pairs below, the underlined names are free variants.

(1) I like to drink Heineken Beer in the bleachers.
    I like to drink Heineken in the bleachers.
(2) We crossed the Golden Gate Bridge in a barrel.
    We crossed the Golden Gate in a barrel.
(3) New York City gets a little over-ripe in July.
    New York gets a little over-ripe in July.
(4) To complete the image, balance a copy of the New York Times on your head.
    To complete the image, balance a copy of the Times on your head.
(5) Let’s go down to Harry’s Bar and watch the rest of the Superbowl.
    Let’s go down to Harry’s and watch the rest of the Superbowl.
(6) Herb’s nose fetish compelled him to live near Mount Rushmore.
    Herb’s nose fetish compelled him to live near Rushmore.

Such examples suggest that, for at least some proper names, it is necessary to differentiate between “broad” names (the longer versions) and “narrow” names (the shorter versions).

It is important to note that the intuitions involved here are extremely clear and strong. Indeed the mechanisms, whatever they are, that structure these correspondences are also highly productive—as the made-up examples below demonstrate.

(7) We enjoyed the floorshow at the Floppout Hotel.
    We enjoyed the floorshow at the Floppout.
(8) That massage parlor used to be at the corner of Naught Street.
    That massage parlor used to be at the corner of Naught.
(9) They’re advising people not to swim in Lake Gunbutt.
    They’re advising people not to swim in Gunbutt.
(10) Your degree from Podunk University assures you a good job.
    Your degree from Podunk assures you a good job.
(11) We plan to move 15 tons up the Crumwick Canal.
We plan to move 15 tons up the Crumwick.

The correspondences between these pairs of broad and narrow name expressions are strikingly established in native intuitions—despite the fact that one has never encountered either variant before. Equally striking are examples in which the correspondence cannot hold.

(12) I heard that the Security Council may issue another protest around lunchtime.
*I heard that the Security may issue another protest around lunchtime.

(13) That club is right at the center of Inman Square.
*That club is right at the center of Inman.

(14) He hoped to create a stir by skinny-dipping at Jones Beach.
*He hoped to create a stir by skinny-dipping at Jones.

(15) Harvey was attacked by a lobster when he fell into Boston Harbor.
*Harvey was attacked by a lobster when he fell into Boston.

The lexicon is frequently characterized as a repository of exceptions (Chomsky, 1965, p. 142). And among lexical items, for it seems most straightforward to consider names to be lexical items (see Section 3.1 below), names might be expected to be at the extreme of exceptionality: they are traditionally analyzed as having no structural semantics (Katz, 1979; Mill, 1956), as having their reference fixed by mere conventions of use (Strawson, 1950) resulting in causal connections that could have been otherwise (Kripke, 1980)—for review see Carroll (1981a). Given all this it is remarkable that the data in (1) through (15) are as clear cut as they seem to be.

The narrow/broad distribution is actually even more finely structured than the foregoing discussion suggests. Note that only some narrow forms are acceptable answers to the diagnostic question What is the name of that? Others are acceptable shortenings in sentential contexts but do not preserve what has been called the "naming function" (Carroll, 1981a).

(16) What is the name of that pool of water?
Lake Erie / / Erie / / *the Lake
Where should we swim today?
Lake Erie / / Erie / / the Lake

(17) What is the name of that transportation system?
the New York Central Railroad / / the New York Central / /
*the Railroad
Where have you been workin' all the livelong day?

*There are acceptable possible narrow name expressions even for these cases. Thus, He hoped to create a stir by skinny-dipping at the Beach.

We return to these cases and distinguish them from the cases under discussion later in the text. Note that all of the cited examples are attested rather than made-up, unless otherwise indicated, e.g., (7) through (11).
the New York Central Railroad / / the New York Central / /
the Railroad

(18) What is the name of the place you were born in?

New York City / / New York / / *the City
Where were you born?

New York City / / New York / / the City

(Turning things around slightly, *lengthening* a name form generally fails to preserve the naming function: Don’t sunbathe in New York’s Central Park, but *The name of that urban jungle is New York’s Central Park*). Thus, a full explication of the correspondence between narrow and broad name expressions must consist in more than merely an account of acceptable elliptical alternations. It must also distinguish alternations that preserve the naming function from those that do not. Narrow names that preserve the naming function are of principal concern here. We shall call them “nameheads”. (*These should not be confused with morphological heads: *City is the morphological head of the name New York City—e.g., because the word refers to a city, see Lees, 1960; Williams, 1979—but New York is its namehead; see 3.2 below.*)

Intuitively, we indeed think of New York Magazine and New York City as having “the same” name. The magazine, we say, was named for or after the city. And there is a sense in which we want to be able to say that when the New York Giants moved to San Francisco they didn’t change their name but only their home city. (However, when the Washington Senators moved to Kansas City and became the Royals, they *did* change their name in just this sense.) Both of these facts are captured by the notion of the namehead: The city and the magazine are both named New York, and the baseball team has always been named the Giants. We cannot of course do without the concept of broad name either, for there is a sense in which the city, the magazine, and both eras of the baseball team all have their separate and distinct names.

There is one last piece of tantalizing data to be placed on the table before we move on to developing the outlines of a descriptive account. This involves “gradients” of narrow name acceptability. The namehead Robert Murphy, for example, is more acceptable in the sentences nearer to the top of (19) than it is in those nearer to the bottom.

(19) We sailed to Europe on the (USS) Robert Murphy.
When visiting Easton, Pa., stay at the Robert Murphy (Hotel).
We were pleased to be able to locate our law firm in the Robert Murphy (Building).

*I see no compelling reasons to view the correspondence between narrow and broad names as “deletion”, as against “interpretation” (but cf. Gouet, 1976, for relevant argument in favor of a deletion approach). Nevertheless, readers partial to interpretive accounts will no doubt feel that “ellipsis” is not sufficiently neutral in this regard. The issue is addressed more directly later in the text.*
We were arrested for going 120 mph on the Robert Murphy (Parkway).

Five other informants I have questioned agreed precisely with this ordering. Analogous facts are displayed in (20).

(20) ?I visited Block last week.
(That is, I went out to Block Island for a holiday)
I visited Block last week.
(That is, I'm looking for a job and happened to take an interview at H.&R. Block, Inc.)

The gradient displayed in (21) summarizes the consensus of informants for another set of name reductions. However, in this case while each subject was able to produce an acceptability ranking, each subject's ranking departed slightly from others. (Again, the examples nearer to the top are better.)

(21) We were quite pleased to invest our inheritance with Long (Inc.).
We should have bought that old house on the corner of Long (Street).
We are proud to guzzle Long (Beer).
Last weekend we climbed to the peak of Long (Mountain).

It may already seem odd that the word "pragmatics" has not yet entered into the discussion. In any case, since we will not consider issues of pragmatics until the final section of the paper, a word of explanation is in order. Pragmatics will surely be a part of any account of the distribution of narrow versus broad name expressions. However, its entry is not nearly as straightforward or as central as might be supposed a priori. First, note that many of the facts introduced to this point hold without any context at all (without even a bare sentential context). Second, and the argument for this will be presented later, such pragmatic factors as can be defensibly addressed to an analysis of elliptical name alternations are not specially relevant to this domain, that is, they apply identically to other linguistic data. Hence, they cannot, without embellishment, deliver any account of the special properties of name ellipses. Thus, third, it makes sense to examine the correspondences between narrow and broad name expressions from a purely formal perspective first. Finally, as we will argue in 4.1 below, pragmatic considerations seem not to bear at all on the possibilities for nameheads.

2. FIRST APPROXIMATIONS

In this section the correspondence between narrow and broad names is organized under four principles. It is important to regard these principles as working hypotheses and not as gilded laws. No attempt will be made to formalize them. Rather, we will proceed in subsequent sections to consider the
question of whether, and if so how, the principles ought to be formalized. (And to anticipate just a bit, it will turn out that the four principles segregate according to whether their narrow alternations are nameheads.) As a second caveat, note that while locutions like "ellipsis", "name reduction", and even "deletion" will inevitably sneak into the discussion, there are no compelling grounds for choosing between accounts that view the relation between narrow and broad names as "interpretations" and accounts that view this relation as "deletion" (but cf. Gouet, 1976, whose work—on French—suggests that such relations might indeed be best construed as deletion). Indeed, the way this distinction is posed in contemporary linguistic theory makes it impossible in principle to address with any usefulness.

Note that there are productive correspondences between nounphrases which are not names. The fuller forms are accordingly not broad names, and the briefer forms are not narrow names. Some examples are given in (22).

(22) Whenever we get a shipment of milkshakes, she drinks the bananas and I drink the vanillas.

I went to the used sweater shop and traded the cashmere for sheepdog mittens.

We are not concerned here with such examples.

There are also broad/narrow name correspondences which are highly idiosyncratic in nature. Examples are (23).

(23) New Jersey \( \leftrightarrow \) Jersey
    the Museum of Modern Art \( \leftrightarrow \) the Modern
    the University of Massachusetts \( \leftrightarrow \) UMass
    Coca Cola \( \leftrightarrow \) Coke

We are not concerned here with such examples.\(^1\)

The name correspondence paradigm in (24) illustrates a highly productive pattern which is also not of direct concern here but which is useful to bear in mind.

(24) John Fitzgerald Kennedy \( \leftrightarrow \) John F. Kennedy
    John Fitzgerald Kennedy \( \leftrightarrow \) John Kennedy
    John Fitzgerald Kennedy \( \leftrightarrow \) J.F. Kennedy
    John Fitzgerald Kennedy \( \leftrightarrow \) Kennedy
    John Fitzgerald Kennedy \( \leftrightarrow \) John
    John Fitzgerald Kennedy \( \leftrightarrow \) JFK

First, this alteration can be characterized very simply. It can be decomposed into two atomic operations: "truncation", which removes all but the leftmost character of a constituent of the name, and "deletion", which removes all of some constituent. The principle underlying the data in (24) can then be

\(^1\)In fact we shall come back to some of these somewhat idiosyncratic cases, but they lie at the periphery of this discussion.
stated: "Apply deletion first to the middle constituent; Apply truncation in the order Middle, First, Last." Both atomic operations are fully optional and unordered. The second motivation for noting this reduction pattern is that it interacts with the name reduction patterns we shall be concerned with (see below).

2.1 Category Ellipsis

An obvious generalization to be drawn from the examples we have considered could be roughly stated "Omit category words." Many of these examples can be syntactically analyzed into a canonical form that makes this account transparent:

(A) the Category-Word of Narrow-Name \( \Rightarrow \) Narrow-Name

Examples appear in (25).

(25) the Island of Nantucket \( \Rightarrow \) Nantucket
    the City of Cincinnati \( \Rightarrow \) Cincinnati
    the United States of Mexico \( \Rightarrow \) Mexico

The narrow names analyzed as in (25) all have the property of preserving the name function (recall [16] through [18]); that is, they are nameheads. Indeed, in the statement of this process \( of \) can be glossed as named.

There are problems for this statement of Category Ellipsis. First, other \( of \)'s have occurrences in broad names. For example, in the Library of Congress the \( of \) cannot be glossed as named, but rather as for. In the name the Museum of Natural History the \( of \) may be glossed as containing or devoted to. The examples in (26) illustrate these observations.

(26) *I left my electric bill at (the Library of) Congress.
   *Children enjoy (the Museum of) Natural History.

A second problem is that \( of \)'s have sometimes changed historically either toward or away from the name-\( of \). When the name the United States of America was originally coined, the \( of \) had the sense of located in. The \( of \) has changed through to the point where now, on one of its senses, it can be glossed as named. Thus two nameheads are available: the United States and America (the latter by Category Ellipsis and the former by Location Ellipsis, (see below).

A possible converse case involves the history of the broad name the Massachusetts Institute of Technology. Historically, there was a period when the \( of \) in this name may have been taken to have the gloss named. The fact is that in the oral history, songs, and general lore of MIT, the short name expression Technology occurs. Whether this form was a true namehead, in the sense of the tests in (16) through (18), or a metonymy in the sense of 2.4 below cannot be finally decided empirically for there are no
longer living intuitions to refer to. Synchronically, the possibility of Technology as a namehead has been preempted by the equation of for. The contemporary namehead is MIT (we return to this type of case in section 3.1 below when we discuss blocking).

The third difficulty with our statement of Category Ellipsis is that many broad names that do undergo the process cannot be analyzed into canonical of-structures at all, as illustrated in (27).

(27) *the River of (the) Mississippi < = = > the Mississippi
*the Magazine of Newsweek < = = > Newsweek
*the Hotel of (the) Plaza < = = > the Plaza
*the Beer of Budweiser < = = > Budweiser

These difficulties suggest that a more abstract notion of Category Word is needed for the statement of the ellipsis process, probably a notion that does not refer merely to superficial syntax and morphology.

Indeed, this suggestion finds further support in the existence of examples like (28) and (29).

(28) *Sheila sang "Swanee" on the steps of Lincoln (Center) last night.
   Is it really true that you do all your shopping in Northboro (Center)?
(29) *Harry wants to play touch football in the Capitol (Mall).
   I got both of these socks at the Springfield (Mall).

In example (28) the category word Center either designates "cultural center" or "village center". The alternation seems to apply in the latter case but not in the former. In example (29) the category word Mall either designates "an extended front lawn park" or "a shopping area". The latter namehead is better.

Note also that for cases in which category words can appear either preposed or postposed with respect to their namehead, the acceptability of the alternation sometimes discriminates between these positions.

(30) Roscoe needs to climb (Mount) Raephies to prove himself.
   ?Roscoe needs to climb Raephies (Mountain) to prove himself.
(31) Hermine knows she can't swim (Lake) Hoggspatch.
   ?Hermine knows she can't swim Hoggspatch (Lake).

The intuitions involved here are admittedly subtle but they are real, as an examination of non-made-up cases will demonstrate: (Mount) Everest and (Mount) Whitney but *Bald (Mountain) and *Bear (Mountain); (Lake) Ontario and (Lake) Victoria but *Smith (Lake) and *Fire (Lake). These facts show that the notion of category word (however it is to be stated) can also not be too abstract. It must take into account constituent surface order variations.

One further minor complication in the analysis of Category Ellipsis is its interaction with the processes of person name reduction referred to at the beginning of this section (example [24]). Note in (32) and (33) that the per-
missable reductions that can apply to the namehead remaining after Category Ellipsis manifest particular restrictions the nature of which seem obscure (but cf. discussion of (88) below in text).

(32) She bribed the Dean to get into Brigham Young University.
    She bribed the Dean to get into Brigham Young.
    She bribed the Dean to get into Young.
(33) Bill crash landed at John F. Kennedy Airport.
    Bill crash landed at John F. Kennedy.
    Bill crash landed at Kennedy.

To close these initial observations on Category Ellipsis, we attempt to place it in the context of other apparently similar processes. First, consider the examples in (34).

(34) empty bottle  ð=ð empty
    flat tire  ð=ð flat
    blank space  ð=ð blank
    rowdy guy  ð=ð rowdy

(See also collectibles, untouchables, actives and passives.) These examples seem to represent a potential generalization of Category Ellipsis. Their behavior is quite similar in, for example, the preservation of number affixation:

(35) empty bottles  ð=ð empties (see also flats, blanks, rowdies)
    the Smokey Mountains  ð=ð the Smokies (see also the Olympics, the Phillipines, the Orkneys)

However, the process underlying (34) is actually far less productive than Category Ellipsis with nameheads (recall [7] through [11]). The former process applies to state adjectives (although it is not perfectly general: guitarists have dead strings, but never “deads”), but Category Ellipsis applies to nominal elements in a broad name.

Another domain which might be theoretically related to the namehead alternations is that of “beheaded” nounphrases, as discussed by Borkin (1972). In Borkin’s characterization, borrowed from Postal, the name Hanoi is a beheaded nounphrase when it occurs in sentences like (36).

(36) Hanoi has refused to cooperate. (from Borkin, 1972)

The problem of course is fixing the inferred nounphrase source, which Borkin takes to be something like “the government whose capital city is Hanoi”. Indeed, this indeterminacy is probably the reason why Borkin was unable to give any principled account of beheading. The descriptive situation is not nearly as bad in the case of nameheads, and so again we resist the move to treat the two phenomena together, and in particular the move to subsume Category Ellipsis under beheading. However, we will have occasion to return to beheading in our characterization of Explicit Metonomy (section 2.4 below).
2.2 Location Ellipsis

In a sense parallel to Category Ellipsis is "Location Ellipsis", which could be roughly stated as: "Omit location words". This process appears, however, to be both more limited and more regular than Category Ellipsis. It is more limited because, ecologically speaking, far fewer broad names have location words as constituent elements than have category words as elements. It is more regular because the of-paraphrase, which was only intermittently available for stating a canonical Category Ellipsis, is generally available for stating Location Ellipsis:

(B) Narrow-Name of Location-Word \(\Rightarrow\) Narrow-Name

This correspondence involves a location of instead of the name of involved in the analogous statement of Category Ellipsis considered earlier. Also in contrast to the earlier principle, broad names with location words can always be analyzed into the pattern on the lefthand side of the equation, as illustrated in (37).

(37) the New York Yankees \(\Rightarrow\) the Yankees of New York \(\Rightarrow\) the Yankees
    the Los Angeles Times \(\Rightarrow\) the Times of Los Angeles \(\Rightarrow\) the Times

(However, as suggested in discussion of 16–18, the lengthened forms sometimes fail to preserve the naming function.)

Location Ellipsis appears to have lower "priority" than Category Ellipsis in the sense that if a broad name can be analyzed by both alternations (i.e., by the lefthand side of both equations), Category Ellipsis will always produce a true namehead while Location Ellipsis might, as in (37), but might not, as in (38).

(38) The name of that thing is the Erie Canal.
    (by Location Ellipsis) \(\Rightarrow\)
    *The name of that thing is the Canal.
    (by Category Ellipsis) \(\Rightarrow\)
    The name of that thing is the Erie.

Indeed, in some cases the output of Location Ellipsis not only fails to be a namehead, but fails to be an acceptable narrow name at all, as in (39).

(39) Magdelana is reading New York Magazine.
    (by Location Ellipsis) \(\Rightarrow\)
    *Magdelana is reading Magazine.
    (by Category Ellipsis) \(\Rightarrow\)
    Magdelana is reading New York.

This observation can also be made in name reductions which compose Category and Location Ellipsis. The operation of Category Ellipsis always ren-
ders a form that is a better namehead, while Location Ellipsis can produce less name-like narrow forms.

(40) That awesome building is named Brooklyn Technical High School.
(by Category Ellipsis) = ⊃>
That awesome building is named Brooklyn Technical (Brooklyn Tech).
(alternatively, by Location Ellipsis) = ⊃>
*That awesome building is named (the) Technical High School.
 finally, by subsequent Category Ellipsis/Location Ellipsis = ⊃>
That awesome building is named Technical (Tech).

It seems that the properties of “priority”, “regularity”, and “limitation” trade off in the statement of Location Ellipsis. Note that examples like (38) and (39), which demonstrate the lower priority of Location Ellipsis, also fail to be easily glossed with location-of paraphrases.

(41) the Erie Canal < ⊃ > ?the Canal of Erie < ⊃ > the Canal
New York Magazine < ⊃ > *the Magazine of New York < ⊃ > the Magazine

One approach might be to restate Location Ellipsis as below:

(B') the Location-Word Narrow-Name < ⊃ > the Narrow-Name

This principle analyzes the examples in (37) as well as the troublesome cases like the Erie Canal. However, it still fails for cases like New York Magazine, thus necessitating a further principle:

(B'”) Location-Word Narrows-Name < ⊃ > the Narrow-Name

In any case, these two principles fail to reveal why it is that the examples in (38) and (39) are not nameheads, while those in (37) arc. Moreover, the two principles are sufficiently similar to suggest that a generalization is being missed.

Indeed, as we will see in the next section, there is an independently motivated analysis for non namehead narrow expressions like the Canal and the Magazine which would remove them from the purview of Location Ellipsis. Thus, despite data like (38) through (41), we may be able to regard Location Ellipsis as a principle which, like Category Ellipsis, produces only nameheads, but which applies in a smaller number of cases in a slightly more regular manner. This possibility turns on analyzing the cases in (38) through (41) as “appellations”; the topic we now consider.

2.3 Appellation Formation

Name expressions with category words as constituent elements always allow the possibility of alternation according to the following schema:
(C) X Category-Word Y <= => the Category-Word

X and Y are variables. Narrow name expressions formed by the schema are not, in general, nameheads (n.b., if they appear to be, they will always turn out to have independent analyses as cases of Location Ellipsis). We will refer to them as "Appellations". (Note also that in some examples the category word mentioned on the lefthand side of (C) seems to be "abstract": thus, Montreal <= => the City, but—at least for one informant, *the City of Montreal.)

Both Jespersen (1965, p. 70) and Ross (1972) use the non-appearance of the definite article as a diagnostic test of namehood. Jespersen asked "Is the Union as applied to one particular students' union at Oxford or Cambridge a proper name?" Jespersen thought perhaps so, but took the obligatory definite article as evidence against this analysis. The term appellation is, in fact, borrowed from Ross. However, it should be clear from the preceding two sections that we are not following the distinction Jespersen and Ross make. Indeed, the data in (16) through (18) suggest strongly that the distinction on the basis of articleness alone is inadequate. All appellations have the definite article, but the converse for names appears not to be true. (Actually, any definite determiner seems to do for the definite article: the Floppout Hotel, my Floppout Hotel, *Floppout.)

Note that the principle of Appellation Formation provides an alternative account of the cases that troubled the statement of Location Ellipsis.

(42) the Erie Canal <= => the Canal
   New York Magazine <= => the Magazine

The omitted material in these examples, though, confounds "being a namehead" with "being a location word". However, Appellation Formation applies identically if the omitted material is a location word constituent which is a non-namehead.

(43) the Capital Mall <= => the Mall (*the Capitol)
   Boston Common <= => the Common (*Boston)

Indeed, the material corresponding to X and Y may also be a non-location word namehead.

(44) The Dreyfus Fund <= => the Fund (cf. the Dreyfus)
   Cape Hatteras <= => the Cape (cf. Hatteras)

Per this view of Appellation Formation, we would want to reanalyze example (40). If the schema analyzes Technical High School as a Category Word, we get the appellation the Technical High School. If it analyzes High School as a category word, we get the appellation the High School (note that there is no account of this latter form on any combination of the several versions of Location Ellipsis and Category Ellipsis considered above).

Note though that on the present analysis we have two "derivations" for the namehead Tech (Technical). First, we can allow Category Ellipsis to
apply to the output of Appellation Formation: the Technical High School
\[ \Rightarrow \text{Tech/Technical} \]. This solution has the disadvantage of allowing a
form which has lost its naming function (via Appellation Formation) to
retrieve it by subsequent Category Ellipsis (refer to the data in (40)). Alter-
natively, we may order Category Ellipsis before Location Ellipsis, predicting
the namehead Brooklyn Technical as the only source (via Location Ellipsis)
for the namehead Tech/Technical. One key question in this type of approach
would be whether the ordering is extrinsic or intrinsic; the former being
mere stipulation. The fact that we have independent grounds (e.g., produc-
tivity) on which to view Category Ellipsis as a priority pattern relative to
Location Ellipsis, suggests that the ordering may be intrinsic. But the matter
will obviously have to be settled in view of specific proposals for represent-
ing name structures. For the moment, the ordering solution seems to be the
more attractive choice.

In summary, we will want to posit some mechanism of Appellation
Formation to deal with examples like those in (44). The most general state-
ment of the principle generalizes to treat the difficult data in (38) through
(41) as well, affording a simpler and stronger statement of Location Ellipsis.

2.4 Explicit Metonomy

We still lack mechanisms to analyze the full range of narrow-naming expres-
sions that occur, as illustrated in (45).

\[ (45) \text{the New York Yankees } \Rightarrow \text{New York} \]

This kind of case seems to be a "location appellation". But whatever it is, it
is severely restricted, as witnessed by (46).

\[ (46) \text{the Boston Globe } \Rightarrow *\text{Boston} \]
\[ \quad \text{the New Jersey Turnpike } \Rightarrow *\text{New Jersey} \]
\[ \quad \text{the Cleveland Hilton } \Rightarrow *\text{Cleveland} \]

Indeed the process seems to be fundamentally different from all of the
three other alternation schemata. It rests on a sort of sloppy semantic (or ref-
erential) "identity" relation that we will refer to as "Explicit Metonomy". The
New York Yankees represent New York City within the microcosm of
professional baseball teams, and it is in virtue of this that they may borrow
its namehead. Thus, if one imagines working for the Hilton Corporation,
one might very well come to accept the last example in (46)—that is, relative
to the microcosm of Hilton Hotels, Cleveland is a possible metonymic
variant of the Cleveland Hilton. Evidence for this analysis may be gathered
from examples like (47) in which the borrowed namehead imposes its own
number agreement on the verb to be.

\[ *\text{Explicit Metonomy because in a sense all of the narrow name forms are metonymic.} \]
(47) It's the bottom of the ninth and the New York Yankees are coming to bat.

It's the bottom of the ninth and New York is coming to bat.

(n.b. that in British English the plurality of New York would carry to both forms.) Nevertheless, the borrowing does result in some abstract marking of the borrowed namehead, which is blocked from participation in syntactic processes requiring "real" identity.


(Equi-NP Deletion) = = >

?New York wants to win.

(49) The City of New York is booing the New York Yankees again.

(Reflexivization) = = >

*New York is booing itself (themself/themselves) again.

This analysis may be extended to examples as in (50).

(50) the Mary Tyler Moore Show < = = > Mary Tyler Moore

the University of Alabama < = = > Alabama

the painting by Picasso < = = > the Picasso

What bears immediate comment is the possible relation between Explicit Metonomies and beheaded nounphrases, as in example (36). All of the cases Borkin (1972) raises are susceptible to the Metonomy analysis—which does not of itself account for the syntactic properties of beheaded nounphrases. Nevertheless, it is useful to have some idea of where related phenomena may fit into the framework being developed.

To summarize, narrow/broad name alternations can be analyzed into four highly productive patterns. Two of these, Appellation Formation and Explicit Metonomy, fail to preserve the name function. The other two preserve the name function, relating nameheads to their broad names—Category Ellipsis and Location Ellipsis. In the remainder of the discussion our principal concern will be with the latter reduction patterns and their distinctive property of preserving namehood.

Clark (1978, 313-315) discussed this example, along with examples similar to (1) through (11), and (22), as "shorthands". The following contrasts, based on Clark's examples, show that his sample is heterogeneous with respect to the naming function.

*The name of that painting is the Picasso.

Take your foot off the Picasso.

The name of that soap is Ajax.

That stuff on your cereal is Ajax.

(See Jespersen, 1965, p. 69). This conflation of distinct cases (i.e., metonomies like (50), nameheads like (1) through (11), and nounphrase ellipses like (22)) make his remarks difficult to assess. In any case, the general pragmatics line that Clark runs in attempting to describe shorthands, we shall reject in section 4 below.
3. THE STATUS OF THE DESCRIPTION

A very incomplete analysis of the correspondence between broad names and various kinds of narrow forms (nameheads, appellations, and metonyms—of these only nameheads are really names) has been presented. We would, of course, like to now see whether these pieces can be brought together, or at least to what extent they can be systematized. However, a more pressing task remains.

Several strange facts about name alternations have been lurking in the periphery, and the question they pose is the most fundamental one: with what sort of phenomenon are we dealing? That is, assuming some account can be given (elegant and fully adequate, or not), what sort of account will it be? There are at least four possibilities: (i) name reductions are pragmatic implicatures, (ii) they are cognitive strategies, (iii) they are syntactic processes, (iv) they are rules of word formation. In section 3.1, we pursue (iv) by arguing that names (broad and narrow) are words. In section 3.2, we consider a series of problems that arise in various areas of grammatical theory if (iv) is, in fact, adopted. These considerations raise analogous difficulties for (iii).

In section 4, we take the nongrammatical tack, arguing that available pragmatic accounts are both too weak and too strong to provide an account of the distribution of name reductions, and that in any case, pragmatics cannot provide an account of how the forms become available to speakers. Alternative (ii) is then fleshed out and the notion "rule scheme" is (partially) defined.

3.1 Names are Words

The first reason for presuming that names are words is that if they are not, they provide a systematic class of exceptional syntactic entities: they have no proper morphemic structure. Indeed, no one has ever proposed a decompositional semantics for proper names. What semantic proposals there are for names, do not treat them as morphologically complex (for discussion see Katz, 1979; Kripke, 1980; Mill, 1956; Strawson, 1950).

A second consideration, indicating that names are lexical items, is that they resist interruption by modifiers and appositive material (Greenberg, 1957).

(51) Welcome to the fun-loving Linguistics Department.*

*Note also that these examples suggest that the definite article the, which is obligatory for many names, is not actually part of the name form, but rather just an obligatory introducer. Also note that interruptions of names are possible for some speakers, but always much worse than non-interruptions.
*Welcome to the Linguistics fun-loving Department.

(52) Welcome to the Linguistics Department.
*Welcome to the Linguistics, I hope you don't mind Tagalog puns, Department.

A third consideration is that “blocking” (Aronoff, 1976) appears to play a significant role in the acceptability of name alternations (principally, of nameheads). Blocking refers to the situation in which the availability of a form (often an exceptional form) prevents a regular productive process from providing a form which could have served. It is invoked in accounts of gaps in otherwise productive and regular morphological paradigms. This principle, of course, can play no explanatory role in syntax where alternate forms abound.

Clear examples of blocking must not be susceptible to pragmatic accounts. Thus, one could argue that Boston is an unacceptable alternation for Boston Harbor because people would confuse it with the City of Boston, which also has that namehead. Ignoring the merits of this argument for the moment, it is possible to cite numerous examples for which no such pragmatic account can be advanced.

(53) the Oxford English Dictionary < = = > *the Oxford English / / the OED
Webster’s Collegiate Dictionary < = = > Webster’s Collegiate / / *(the) WCD / / *Webster’s CD
(54) the University of Connecticut < = = > ?Connecticut / / UConn
the University of Nebraska < = = > Nebraska / / *UNeb
(55) the Long Island Railroad < = = > ?the Long Island / / the LIRR
the Pennsylvania Central Railroad < = = > the Penn Central / / *(the) PCRR
(56) Massachusetts Avenue < = = > Mass Ave / / *Massachusetts
Concord Avenue < = = > *Con Ave / / Concord

The examples in (53) through (56) demonstrate that unequivocal blocking phenomena occur in alternation processes (specifically in the formation of nameheads). Note that the existence of unequivocal examples like these licenses the suggestion that less clear cases, e.g., college names like MIT, NYU, BU, and BC, be viewed as blockings of, e.g., Massachusetts, New York, and Boston, and not as pragmatically favored alternatives. ¹ (See also Section 4.)

¹The converse cases are more difficult. That is, we have no good account of why, for example, the acronymic reduction the GWB of the broad name the George Washington Bridge neither blocks nor is blocked by the namehead reduction the George Washington (see also CMU and Carnegie-Mellon (University)). Analogous problems arise in the non-name portions of the lexicon, but it is worth reiterating that here, as in other lexical domains, our generalizations are not exceptionless.
3.2 Problems

A number of problems arise immediately, however, if name alternation is treated as a word formation phenomenon. For example, the deletion/interpretation rules that would correspond to the Category and Location Ellipsis principles have extraordinary properties. To date, proposals for deletion rules in the word formation apparatus of grammar have been extremely restricted. Aronoff (1976), for example, allows certain deletions in purely morphological environments. But the ellipsis principles for nameheads cannot be defined on purely morphological environments—except in the trivial approach of enumerating category and location words. Moreover, even if such an approach could be taken seriously, it is too weak to differentiate the cases in (28) and (29). Finally, if we treat Explicit Metonomy as a deletion process (as suggested by Borkin, 1972), morphological specification of the proper environments becomes utterly intractable.

Clearly, the point is that trying to define namehead (and other) reductions as, for example, deletion rules in the word formation component of grammar, could at most be descriptively successful and only at the cost of considerable alterations in current conceptions of such rules. But the problem largely remains even if we attempt to locate the account of namehead reductions in the syntax. (As I have argued above, this is a dubious move.) Even syntactic rules are usually barred from noticing the status of elements as “category” and/or “location” words. And, as before, this point holds a fortiori given the existence of cases like (28) and (29).

The third point with respect to deletion pertains to the principle of “Recoverability of Deletion” (Chomsky, 1965). This principle has never really been given an adequately formal definition in generative theory, but what it would have to say is sufficiently clear for us to know in advance of such a formalization that namehead reductions will not be “recoverable”. In sentence (57) we cannot know whether the speaker is going to a cafe, a bowling alley, a market, a private home, a bar, a department store, etc.

(57) I’m going down to Harry’s for an hour Honey.

Indeed, in an informal field study, I was surprised to find that residents of Boston are in fact unsure of just what the broad name is for the the Prudential (often truncated to the Pru). Is it the Prudential Building, the Prudential Center, or the Prudential Tower? The fact that name reductions are unrecoverable deletions (or interpretations) presents a problem for treating the phenomenon grammatically either in word formation or syntax.

Returning now to the hypothesis that nameheads are the outputs of word formation processes, we note that these processes also have the effect of complicating the “Righthand Head Rule” (Leiber, 1980, p. 93; Williams,
138. The Righthand Head Rule states that the righthand member of a morphologically complex word is its head. Thus, a compound noun like sled dog has dog as its head—a sled dog is a kind of dog. Turning to names, however, it is not the case that every name even has an explicit head in this sense (e.g., the New York Times). As we have seen though, such names do have nameheads, but these are only sometimes righthand members (cf. Heineken Beer). One could reply that apparently complex names are not “morphologically complex” (or at least not so for the purposes of the rule), and this reply does find some support in the fact that names lack semantically decomposable meanings (e.g., Kripke, 1980; Mill, 1956). However, the reply would have little interest unless it also included an account of the way in which nameheads are the heads of their broad names.

A fifth difficulty involves the “A-Over-A Condition” (Chomsky, 1965) which constrains rules of grammar to apply to lower structurally appropriate domains first, and to higher domains subsequently. In the case of Category Ellipsis, this predicts that when a name is itself the namehead of another name, reduction will be permissible in the embedded name first. The examples in (58) work in the predicted fashion.

(58) the Saw Mill River Parkway = = > the Saw Mill Parkway = = > the Saw Mill
the Verrazzano Narrows Bridge = = > (?) the Verrazzano Bridge
= = > the Verrazano

Note that in these examples, if Category Ellipsis applies to the “matrix” name structure without having first applied in the embedded name structure, the result is unacceptable.

(59) *Marvin admires the new pavement on the Saw Mill River.
*We were stuck in traffic for a hour on the Verrazzano Narrows.

(Clearly, these sentences are acceptable on the interpretation that Category Ellipsis has not applied, but this is not the relevant reading.)

Further examples slightly complicate the picture with respect to A-over-A. The examples in (60) allow the same range of name alternations as those in (58).

(60) the Major Deegan Expressway = = > the Deegan Expressway
= = > the Deegan
the Willis Avenue Bridge = = > the Willis Bridge = = > the Willis

However, these broad names also allow the narrow forms in (61), suggesting that the ellipsis can skip the embedded name and apply only to the matrix name.

(61) the Major Deegan
the Willis Avenue

The facts in (61) are not problematic on the assumption (entirely warranted) that the name reduction processes are simply optional. In (61) the reduction
takes the option of not applying to the embedded name, but takes the option of applying to the higher name. The examples in (62), however, are more troublesome.

(62) the 59th Street Bridge = = > the 59th Street / / *the 59th Bridge
   / / *the 59th
the Harlem River Drive = = > the Harlem River / / *the Harlem
   Drive / / *the Harlem

These are cases in which the rule must fail to apply in the embedded name, but may apply (optionally) in the higher name. These examples seem to be violations of A-Over-A.

3.3 Name Paradigms

A final property of name alternations is that they seem to apply not to individual names, but to name paradigms. In particular, namehead narrowings cannot be obtained for councils, cultural centers, squares, harbors, beaches, apartments, straits (e.g., the Straits of Gibraltar), seas, points, marathons, state nicknames, etc.* When a name paradigm does undergo the process, it undergoes it in a highly regular manner. Consider museum names:

(63) the Metropolitan Museum < = = > the Metropolitan (the Met)
    the Guggenheim Museum < = = > the Guggenheim
    the Frick Museum < = = > the Frick

Indeed, much of the apparent indeterminacy of the alternations vanishes when the processes are reconceptualized as defined over name paradigms and not individual names.

The reader will have noticed, for example, the somewhat problematic distribution of the definite article in the cited examples. However, the distribution is far more regular when viewed as a property referring to name paradigms. Names for rivers, canals, teams, bridges, museums, hotels, railroads, newspapers, marathons, chambers of commerce, buildings, tunnels, oceans, turnpikes, and parkways all must have the definite article. Names

*There are (of course) counter examples to this. Yankee Stadium, for example, cannot be reduced to the namehead *Yankee. Perhaps this is because the appellation the Stadium is so well established that it blocks the Category Ellipsis. Conversely, the namehead Montauk seems fine for Montauk Point, even though points do not typically undergo Category Ellipsis (Point Judith / *Judith, Orient Point / *Orient). Perhaps what we have here is a case of metonymy: the point stands for the entire area around the point. Note the contrasts below.

??Harry went to New York but he never got into the City.
Harry went to Montauk but he never got out to the Point.

An analogous exception is Cape Hatteras (cf. Cape Horn / *Horn, Cape Cod / *Cod).

There are other assorted troublesome cases here: Pearl (Harbor), Tavistock (Square), the Dakota (Apartment), the Mediterranean (Sea), Pescadero (Beach).
for lakes, airports, beers, stadiums, parks, prisons, mountains, colas, points, capes, ponds, streets, squares, harbors, beaches, cities, and islands all must not have the definite article.9 In general, events, institutions, and major topographic features have the definite article while substances, places, and individuals do not. However, for present purposes, note that predictability within a name paradigm is extremely high.

The occurrence of the definite article remains invariant with respect to the namehead reductions. (Refer to examples (1) through (11).) These two paradigmatic regularities conspire to make the alternations even more well-structured. Recall, for example, the museum names in (63). The further examples in (64) have name-0fs (violating the pattern of 60).

(64) The Museum of Natural History < = = > the Natural History / / *Natural History
the Museum of Modern Art < = = > the Modern Art (The Modern) / / *Modern Art

The reader will now observe that even when the structural template for names in the paradigm is violated, the constraint on the definite article persists, ruling out the unparadigmatic forms. This clarifies the data in (26): when the paradigmatic the is affixed to the namehead Natural History, the example sentence becomes fully acceptable.

Structural alternatives to the reduction patterns introduced in Sections 1 and 2 also display paradigmatic organization. Thus, the analysis of MIT as an acronym namehead (or pseudo-namehead) for Massachusetts Institute of Technology is not an isolated and exceptional case, but a consequence of the paradigmatic reduction of university names: UCLA, LSU, CCNY, etc. Given this, the suggestion that MIT blocks regular Category Ellipsis (e.g., to *Technology) is far less ad hoc than it might at first appear.10

This paradigmatic structuring also manifests itself in systematic interspeaker variations. When speakers differentially accept certain namehead alternations, they break sharply along paradigmatic lines. One example of this involves names for buildings. Many speakers (myself included) find all of the reductions in (65) through (67) acceptable. Other speakers judge all of them to be unacceptable. However, none of the speakers regard some as acceptable and some as unacceptable.

(65) They're renovating the Schenley Building this summer.
They're renovating the Schenley this summer.

*Not all categories break cleanly into one camp or the other. For example, some magazine names require the definite article (e.g., the New Yorker, the Saturday Evening Post) and some require its absence (e.g., Life, People, Newsweek, Scientific American). Apparently, those names taking the definite article lack the explicit category word magazine in their broad form.

10For some speakers, CIT and Cal Tech are both possible nameheads for the California Institute of Technology; for me CIT is blocked by Cal Tech.
(66) My new office is at the rear of the Chrysler Building.
   My new office is at the rear of the Chrysler.

(67) Marv stumbled on the top of the Empire State Building.
    Marv stumbled on the top of the Empire State.

A dialect-level example of this is the fact that speakers of British English can reduce *House of Lords* and *House of Commons* to Lords and Commons, while no speaker of American English can reduce *House of Representatives* to *Representatives*.

Acceptability of particular nameheads and certain reductions of nameheads also varies paradigmatically. Recall the gradients in (19) through (21). In these examples, the suitability of a given form as a namehead depends upon for what that form would be a namehead, that is, upon what paradigm the broad form belongs to. Block is a good namehead for a company, but a far poorer one for an island (see example (20)). The applicability of Person Name Reduction within nameheads also varies paradigmatically: Kennedy is an acceptable narrowing of the namehead John F. Kennedy (corresponding to John F. Kennedy Airport). This is the typical pattern for airport names. However, Young is not an acceptable reduction of Brigham Young (the namehead of Brigham Young University). Neither is the Washington an acceptable variant of the George Washington (the namehead of the George Washington Bridge).  

(68) We were arrested for going 120 mph on the (Robert) Murphy Parkway.
    When visiting Easton, Pa., stay at the (Robert) Murphy Hotel.
    We sailed to Europe on the (USS Robert) Murphy.
    We were pleased to be able to locate our law firm in the (Robert) Murphy Building.

The ordering in (68) is based only on my own intuitions, and seems far less stable than the ordering in (19), which was consistent for my five informants.

These latter name paradigm phenomena, when they vary between speakers, also seem to do so paradigmatically. An informant, for whom mountain name reductions are quite productive, tells me that alternations like those in (69) are perfectly acceptable, even though for many other speakers (myself, for example) the mountain name paradigm is “choosier”

11Note, though, that the Henry Wadsworth Longfellow Bridge can be reduced to the Longfellow Bridge or to the Longfellow but not to the Henry Wadsworth Longfellow. A possibly relevant fact is that no one ever calls the bridge the Henry Wadsworth Longfellow Bridge (the broadest attested name is the Longfellow Bridge). The right move to make here is either to analyze such cases as “frozen exceptions to the rule” or to take the broadest attested form as the broad name (rather than the broadest inferable form).

With respect to the university name alternations, see discussion of (88) below in the text.
(to borrow a term from Ross, 1974).

(69) Long Mountain $\Rightarrow$ Long
Bear Mountain $\Rightarrow$ Bear

(Contrast these data with (6) and (30).)

Indeed, it seems that paradigmatic structure may be a necessary condition for namehead narrowing. In name domains where no structural paradigm is established, there is little regularity in reduction. Consider journal names:

(70) Psychological Bulletin $\Rightarrow$ Psych Bull
Journal of Experimental Psychology $\Rightarrow$ JEP
Perception and Psychophysics $\Rightarrow$ P and P

There is little regularity here either in the broad names or in the name reductions. Moreover, these reductions do not preserve the name function (i.e., the narrow name alternates are not nameheads).

(71) *The journal I really need to read is named Psych Bull.

In summary, there are the usual sorts of indications that the alternation patterns we have been considering are lexical phenomena (and not syntactic). A grammatical account of these phenomena, however, encounters immediate, severe, and wide ranging difficulties—even at the descriptive level. Treating nameheads within current conceptions of grammar will require major theoretical accommodation and even this promises nothing more than a description. One might urge that these problems, taken with the apparent commonalities between name reductions and beheading, motivate a reconsideration of “generative semantics” grammatical theory. However, it is important to recall that in the relevant areas there never was a generative semantics theory (note that Borkin, 1972, offers no theoretical account whatsoever of beheading, but merely catalogs the difficulties in the data).

Another avenue to explore is so-called “functional” explanation, which in the present case suggests pragmatics. This is considered in Section 4.

4. COGNITIVE STRATEGIES

The term “cognitive strategy,” for present purposes, refers to a principle that can be viewed as “extra-grammatical”, but which does the work of ordinary linguistic explanations. The obvious reason why one would like such explanations is that they relieve the theory of grammar from descriptive burdens. This, in turn, allows the theory of grammar to be more simply and generally stated, and avoids the undesirable state of affairs in which the theory of grammar and cognitive theory (more broadly taken) state the
same principles. The modern classic presentation of the approach is found in Bever (1970).

The key general issue that arises in the course of developing cognitive strategies is that of "motivation". For example, what motivates the suggestion that adjective ordering constraints, as illustrated in (72), are due to a cognitive strategy (Bever, 1970)?

(72) The big red plastic pencil ...
*The plastic red big pencil ...

Furthermore, what rules out the suggestion that tense inflection and number agreement are accountable by appeal to a cognitive strategy? The answer is that a determination of "best fit" must be made on the basis of theory-internal considerations. In clear cases this works well: Bever was able to argue that generally valid perceptual strategies predict manifest constraints on adjective ordering. In contrast, these facts presented intractable descriptive problems for grammatical theory. In less clear cases the same general principles apply. In order to develop a cognitive strategy account, we seek first to show that grammatical descriptions fare badly and second, that properties of strategies are apparent in the phenomena.

This is the tack we now take with regard to name reduction. There seem to be two questions on the table: (i) how do the narrow name forms become available to speakers?, and (ii) why and when are they used? It is the first question that is more properly linguistic and the one that has been most clearly in view (or at least inescapably lurking) throughout this discussion. It is also the more difficult. We confront this question, albeit quite tentatively, in section 4.2 below. A comprehensive consideration of question (ii) would presuppose both an answer to question (i) and extensive experimentation and field work. However, several points can be raised informally which are grounded in recent discussions of pragmatics.

4.1 Pragmatic Approaches

Common sense suggests that briefer forms might replace more lengthy ones on a "least effort" teleology (Zipf, 1935) constrained by a condition guaranteeing "clarity of intent". Indeed, two such accounts of nounphrase reduction have recently been advanced and can be directly adapted to the present discussion. Olson (1970) proposed what may be referred to as the Minimal Distinction Principle: refer to an entity by linguistically encoding the least amount of information necessary to distinguish that entity from other potential referents.11 The principle was demonstrated experimentally.

One participant was to tell another which of two blocks to pick up. When

11I have critiqued Olson's analysis elsewhere on other grounds (Carroll, 1980a).
one block was a round, black block and the other a round, white block, the participant said "Pick up the white one."—using the minimal distinguishing information. Olson was quite uninhibited about interpreting this demonstration. He called it the "paradigm case" of his "cognitive theory of semantics".

Clark (1878, 313–315) presented a discussion somewhat more specifically relevant to name reductions, which he refers to as "shorthand expressions" (cf. Footnote 5). He proposes the Shorthand Agreement (p. 314):

The speaker agrees to use a shorthand expression to denote a category (1) that is somehow connected with the explicit content of that expression, (2) that is specific, (3) that is coherent, and (4) that the speaker is confident his listeners can figure out uniquely on the basis of this information.

The broad name Brooklyn Technical High School may indeed be too cumbersome to get much actual use. This, and the availability of narrow name alternatives, encourages speakers to use shorter forms. This is analogous to the situation in which "Give me the book." substitutes for the possible "Move to the desk by placing your left foot (...), lower your right arm 17.45 degrees (...), extend the second and third fingers (...)". Analogous considerations could be raised regarding clarity: the reduction in (73) needs to be blocked (recall also (48) and (49)).

(73) She says the Lincoln Tunnel required more bricks than the Lincoln Monument. = = >
    *She says the Lincoln required more bricks than the Lincoln.

(But note the usability of "The King is dead; Long live the King.") Examples like (73) are analogous to (74).

(74) *The book (on Marxist reform) is not the book (on reading research).

The principles seem quite general, but notice that the account they provide is too weak to rule out the name reduction in (75).

(75) the Urban Council < = = > *the Urban
    the Empire State < = = > *the Empire
    Jones Beach < = = > *Jones

There are perhaps extreme contexts in which one is, for example, so steeped in talk of councils that some of these examples become usable, but if the Minimal Distinction Principle and the Shorthand Agreement adopt such a severe criterion for "clarity of intent" they will be unable to distinguish such marginal name reductions from the fully acceptable cases in (1) through (11). See Bever, Carroll, and Hurtig (1976) for a discussion of the distinction between "usability" and "acceptability".

The pragmatic account is also too strong; it would rule out nameheads
that are perfectly acceptable. The Lincoln is the namehead of a monument, a tunnel, a hotel, etc., simultaneously, and yet it is perfectly acceptable. Situational factors cannot be appealed to (e.g., the tunnel is in New York, but the monument in Washington, etc.): consider the practical ambiguity of the namehead New York (the city versus the state). As any resident can tell you, this ambiguity has no effect on either the acceptability or usability of the namehead. These difficulties recall the point that the pragmatics of name use cannot provide an account of what forms there are to use.¹³

Note that while pragmatic considerations may offer little insight into the structural possibilities for nameheads, they seem to hold some promise for an understanding of metonomies, and perhaps also of appellations. Nunberg (1978, p. 91) explores examples such as (76) in what he calls "local" uses.

(76) The Times hasn't arrived at the press conference yet.
(77) *The Times is the name of that reporter.

Such examples show that in sufficiently local (i.e., restricted) contexts, the examples rejected in (12) through (15) could become usable (though not as nameheads, as illustrated in (77)). There remains, however, a great phenomenal difference between the very marginal status of cases (12) through (15), and fully acceptable metonomies such as (45) and (50). However, if Nunberg's local uses could be theoretically isolated, this would have the effect of more clearly driving a wedge between namehead and non-namehead alternations.

There is a further pragmatic dimension to name narrowing which, because it is less widely known and common-sensical than the clarity/least effort dimension, deserves some mention. It is that the choice of a shorter name expression implies the speaker's familiarity with the name-referent. In the sense of Cooper and Ross (1975), the reduced-name forms place the name-referent closer to "me".

Consider the alternatives: Lake Gunbutt, Gunbutt, and the Lake. The use of either the namehead or the appellation implies greater familiarity with the lake on the part of the speaker than does the use of the broad name.¹⁴ In this sense, name reductions work like other longer/shorter alternations noted by Ross and Oehrle (1980).

(78) Sam is in the jail.
Sam is in jail.

¹³The least effort principle rests importantly on the correlation of frequency in use with brevity. As Mandlebrot (1977) has suggested, this correlation may simply be a statistical artifact. In the case that it is, least effort accounts of shortening would have to be construed less causally.

¹⁴This generalization does not seem to hold for Explicit Metonomy, which suggests again that these might be fundamentally different from either nameheads or appellations (see Section 2.4).
(79) Sam made the horse gallop.
   Sam galloped the horse.

In (78) the shorter form implies a more intimate locative (Sam is a prisoner not a visitor). In (79) the shorter form implies a more intimate causative (Sam is on the horse, not merely giving orders to the jockey).

Although it is not clear how far this can be taken brevity, and perhaps consequent implications of intimacy, sometimes seems to structure the preferenceability of alternative nameheads. Thus, in (40), the final namehead Tech appears to be better than the fuller Technical. To consider another New York City high school name, it appears that Science High is a better namehead for the Bronx High School of Science than is High School of Science. To be sure, the empirical status of these facts is a bit marginal, and it is not entirely clear just how to connect this material to the related work by Ross and his associates.

This suggestion that briefer names imply speaker-intimacy with the name-referent provides an interesting (if slightly paranoid) interpretation of the trend toward very brief pronouncable acronym corporate names, like ARCO and AMOCO, which took hold in the early 1960s. (Indeed, this sort of name change was so popular that other corporations adopted "fake" acronym names, as in the cases of EXXON and CITGO.) In any case, the suggestion that brevity implies speaker-familiarity of some sort is much less bland a pragmatic principle than the typical clarity/least effort line. With these incomplete remarks on the pragmatics of the use of name reductions in mind, we return to the question of how the forms become available.

4.2 Rule-schemes

Cognitive strategies for processes of word creation (and word abbreviation) have been called "rule-schemes" (Carroll, 1980b, in press; Carroll & Tanenhaus, 1975). What I will try to show is that the apparatus needed to deal (even descriptively) with name narrowings is already available in the theory of rule-schemes and that the alternations indeed bear the earmarks of cognitive strategies. Since we have already cataloged a series of difficulties that arise when the narrowings are dealt with as grammatical phenomena, I conclude that elliptical alternation is a rule-scheme (or rule schemes). It must be acknowledged that this is a rather inconclusive demonstration and that the apparatus is only inadequately formal.

One of the most general findings of research on creative naming is that novel names tend to contain morphologically redundant substrings. Thus, typical templates are <---"X"> or <"X"--> where the variable "X" is a morphological constant and the dashed portion is a unique identifying substring. This name template appears whether people are naming
Similar processes can also be documented with non-nominal parts of speech and in actual (i.e., dictionary cases of) language evolution. Thus, between the years 1550 and 1700 there was a template <"trans"---> for creating nouns and verbs. The lexical items in (80) were quickly coined (and in many cases almost as quickly dropped).

(80) transdialect, transcurasion, transcribble, transcolor, tranship, trans-fashion, transelementation, etc.

Another example is the intensifying adverb good'n, as in "I'm good'n mad now Edgar." (see Carroll, 1980b). This adverb suggests the template <"'n">, which, in fact, analyzes two related English intensifiers nice'n and pretty'n (the latter is archaic).

It should be evident that the notation for these templates (henceforth we will use the term "rule-scheme" for template) offers a description of what we have been calling name paradigms. But the similarity is deeper than simply this. For example, study of the rule-scheme for the good'n intensifier demonstrated that the Coordinate Structure Constraint (Ross, 1967) would be violated by any grammatical rule interpreting these structures. Moreover, the distribution of the intensifier in synchronic English refers intrinsically to the word frequency of the adjective that is "conjoined" into the "good'n ADJ." structure as indicated in (81).

(81) good'n fat, good'n friendly, good'n red, good'n hungry, ?good'n obnoxious, ?good'n industrious, ?good'n verbose, ?good'n obscure

The word frequency of the adjective constituent appeared to predict an acceptability gradient: High frequency adjectives like fat fit into the frame better than less frequent adjectives like obnoxious. The reader will recall that violation of significant formal constraints on grammatical description and reference to "encyclopedic" knowledge were two of the recalcitrant difficulties with grammatical approaches to name reduction.

A further property of rule-schemes is that they frequently organize themselves into abstraction hierarchies. Thus, in cookie names the dominant pattern is <---"cookie">, e.g., molasses cookie. But there are a variety of less dominant patterns such as <---"munchy"> and <---"drop">. In all of these rule-schemes, the dashed identifier is a sequence of ingredient words, e.g., molasses. Thus, the "abstract" rule-scheme is <XY> where X belongs to the vast class of ingredient words and Y to the more constrained class of "cookie words". The various cookie words are not always free variants, although they can be. Cookies with nuts as ingredients are far more likely to have names that fall under <---"munchy"> than are cookies that have butter as one of their principal ingredients.
Returning now to name alternation, consider the various phenomena of paradigmatic structure. At a very abstract level, some name paradigms require the definite article to be present and some require it not to be present: "the" <--- > . At a less abstract level, name paradigms divide into those that can take very adjectival names as nameheads and those that cannot (recall (20) and (21)). Finally, at the most basic level of paradigmatic structure are concrete rule-schemes: "Mountain", for example.

Up to now we have seen that the descriptive apparatus of rule-schemes can be applied fairly naturally to name reductions. This constitutes a weak case that the phenomena thus described share theoretically significant properties. There are, however, two positive arguments that can be advanced for the analysis of name reductions as rule-scheme strategies. These refer to the phenomena of gradients and insight. It is typical that when one first explores a strategy domain, one does so awkwardly at first. At some point it is typical for people to experience a feeling of "insight": "Eureka, now I've got it".

Two traditional examples of insight are seeing the second reading of an ambiguity, such as (82), and recovering from garden-path sentences, such as (83).

(82) Murdering Cossacks can be horrifying.
(83) The cows marched past the fence chuckled.

Another example is the metaphoric plural, as discussed by Carroll and Tanenhaus (1975). In this construction, the plural nominals imply duration and extent rather than sheer quantity. The examples toward the top of (84) illustrate cases that almost everyone immediately accepts.

(84) At the picnic he and I fought for Jennifer's affection(s).
Roscoe and Ginger both strove for Coco's attention(s).
Xavier was immediately awed by Melissa's charm(s).
Thank you for your kindness(es), Mr. President.
I received the dwarf's admonishment(s).
The editor's loathing(s) were directed at the typist.
The stagehands and I competed for her admiration(s).
I shall always treasure the fondness(es) of my wife.

The later examples are almost always initially worse (on the relevant reading), but become markedly better once the pattern is grasped. The acceptability of purely grammatically constructions (e.g., noun-verb pairs with number agreement, raised object noun phrases) does not display such profound effects of insight.

The phenomenon of "gradients" refers to the fact that acceptability line-drawing (abstracting now from insight effects) is not always possible, or at least univocal. Thus, Ross (1974) argued that in many constructions there is a gradient of "nouniness". As illustrated in (85), plural agreement
applies unproblematically to very nouny arguments. Conjunctions of very nouny initial sequences like **winning and losing** are perfectly acceptable as compound subjects of plural verbs.

\begin{align*}
(85) & \quad \text{*That he will win and you will lose are inevitable.} \\
& \quad \text{*For him to win and for you to lose are inevitable.} \\
& \quad \text{?*Him winning and you losing are inevitable.} \\
& \quad \text{??His winning and your losing are inevitable.} \\
& \quad \text{(The) winning and (the) losing are inevitable.}
\end{align*}

More clause-like (and therefore less nouny) initial sequences, such as **his winning and your losing**, elicit increasing unacceptability. The converse situation is illustrated by the process of extraposition. Very clause-like sequences, like sentential subject **that Max whistles**, are perfectly acceptable in the extraposed sentence-final position.

\begin{align*}
(86) & \quad \text{It appears to disturb Herb that Max whistles.} \\
& \quad \text{It appears to disturb Herb for Max to whistle.} \\
& \quad \text{?*It appears to disturb Herb Max's whistling.} \\
& \quad \text{?It appears to disturb Herb (the) whistling.}
\end{align*}

However, more nouny structures like the nominalization **Max whistling** are increasingly unacceptable in these frames.

Carroll (1979) described a gradient of phrasal complexity in the "complex compound" construction.

\begin{align*}
(87) & \quad \text{a doll that is a little girl} \quad \Rightarrow \quad \text{a (little girl) doll} \\
& \quad \text{a doll that is a girl with a bike} \quad \Rightarrow \quad \text{a (girl with a bike) doll} \\
& \quad \text{a doll that is a girl that is playing} \quad \Rightarrow \quad \text{a (girl playing guitar) doll} \\
& \quad \text{a doll that is a girl that says "Mama"} \quad \Rightarrow \quad \text{a (girl that says "Mama") doll}
\end{align*}

As the phrasal complexity of the left nominal constituent becomes greater, proceeding from top to bottom in (87), the acceptability of the complex compound construction diminishes.

Bever and Carroll (1981) argued that the data in (85) through (87) are indicative of the causal role of strategies. The planning and comprehension activities of speakers and hearers is guided by cues like tense marking on verbal elements and complete verb-argument sequences (e.g., the noun-verb-noun-sequence in **"The boy kissed the girl."**). Bever and Carroll proposed that the presence of such cues in a linguistic sequence causes it to be treated behaviorally as a clausal unit, and their absence causes it to be overlooked as a clausal unit. In this way, syntactic structure can conflict behaviorally with sentence processing, creating acceptability gradients.

Also of note, in this proposal the theory of grammar is not weakened by an appeal to non-categorical entities and rules. Ross (1974) assumed that
empirical gradients necessarily impelled non-categorical grammatical theories. But this assumption weakens the theory of grammar by making available more candidate grammars for any given set of data. Moreover, it fails to shed any light on the question of why the gradients are the way they are (or even to pose the question). Finally, conceiving of grammars as non-categorical impairs the ability of grammatical descriptions to differentiate between ineluctable linguistic intuitions and relatively marginal—or squishy—intuitions.

The reader has no doubt noticed that the phenomena of insight and gradients are also typical of name reductions. Having introduced the name reduction pattern to several informants, I was amazed at the number and the variety of forms they would begin to volunteer within minutes. Some informants were initially quite uncertain about the possibility of certain name reductions. However, if I persisted a little and described scenarios in which the name reduction might appear, the informant would soon “see” the pattern and begin to spontaneously volunteer a very great diversity of further examples. (see Carroll, Bever, & Pollack, 1981, for review and discussion of the general methodological issues involved in the use of intuitions as linguistic data).

There are analogous observations to be made for gradients. Indeed, the data cited in (19) through (21) above are precisely germane to this point. These examples show that for the same namehead, the possibility of reduction varies paradigmatically along an acceptability gradient (recall also (68)). Within a paradigm as well, we may demonstrate the effects of gradients. Thus, person name nameheads for university names organize themselves into gradients like that in (88).

(88) She was on the Dean's List at (William Marsh) Rice (University).
    She was in the Physics Club at (Johns) Hopkins (University).
    *She was on the Debating Team at (Bob) Jones (University).
    *She was on the Swimming Team at (Brigham) Young (University).
    *She was in the Theater Club at (Sarah) Lawrence (College).
    *She was in the Women's Group at (Mary) Washington (College).

Again, shortened name forms towards the top of the gradient seem to be more acceptable.

We are not presently in a position to offer much of an explanation for the gradient in (88), but two observations seem pretheoretically salient and strictly for that reason are worth noting. First, it appears that institutions named for women do not have shorter forms. This could be causally related to the convention of not referring to women by their last names. In ordinary speech one may always refer to a man by his last name. However, referring to a woman by her last name implies something exceptional in the speaker’s relationship to the woman (e.g., hostility or, somewhat ironically, familiarity). A second observation about this gradient is that institutions named for
men do not have shorter forms when the name is distinctive only as a whole. No one thinks of Brigham Young as "Mr. Young". These two observations regarding (88) are preliminary, but they suggest that the gradient might eventually be explained, rather than merely described.

The reader should not despair! Our conclusion is not that the correct level of abstraction for a theoretical description of nameheads is, for example, universities named after women. Rather, it appears that empirical generalizations occur at almost every conceivable level of abstraction. True, there are reduction patterns in some measure specific to universities named after women. But these patterns are generalized systematically in the description of reduction patterns for university names in toto. These patterns are, in turn, generalized systematically in the statement of Category Ellipsis.

Here then is the connection between the four archetypal narrowing patterns and their instantiations as relatively domain specific rule-schemes. Within the structure of this rather programmatic account looms the difficult question of delineating the domain of "grammar" from that of "behavior". In the study of word formation, this distinction has been notoriously difficult to formulate. And what is worse in the present case, there appear to be demonstrative empirical arguments for taking the principles of Section 2 to be non-grammatical—despite the fact that they are relatively broad and abstract.

The tentative conclusion that these principles are behavioral (non-grammatical) impels the project of developing a more articulated and precise theoretical framework for what we have simply called "rule schemes". This work is in progress (Carroll, in press). But even without such a theory, one can discern implications which can only become stronger in view of a more complete theory. These implications concern the so-called causal theory of reference (Kripke, 1980) which claims that a name form is causally linked to an original baptismal act which fixed its reference.

In the causal theory both the baptismal act and the causal linkage of the name form are "primitive", reflecting Mill's classic doctrine that names are arbitrary (Kripke, 1980, p. 127). However, we have seen that although many questions do remain open, name forms are anything but arbitrary. The baptismal act of naming a bridge is highly constrained (e.g., you just can't call it Mr. Rogers) and using a name is similarly constrained (e.g., by the various alternation patterns considered here), hence the causal linkage back to the baptismal act is also highly constrained.13 (These issues are dis-

13Naming is fundamentally a willful act, and one can willfully violate its principles. However, this type of exception to the picture of naming sketched in the text is the type of exception that proves the rule. Thus, professional teams have pluralized names (the Yankees) and this is part of the rule-scheme for creating such names. When this principle is willfully violated, as in names like the Chicago Fire, the New Orleans Jazz, and the Philadelphia Bell, what we have is not non-names, but rather eccentric names which speakers recognize as such in virtue of the violation.
cussed at far greater length in Carroll, 1981a).

This is not to say that the causal theory is wrong tout court. It's just incomplete. More precisely, it's incomplete on just the questions that can be illuminated by empirical studies of attested names and the naming process. It remains to be seen whether research in psychology, linguistics, and philosophy will become truly "integrated" with regard to the study of names and naming (see Carroll, 1981a). But the present study suggests, indeed, that this is the course to pursue.

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