BACKGROUND: Broader term, narrower term, and related term references for subject headings are created according to the following principles:

Hierarchical references. A narrower term reference is made to a given subject heading from the next broader heading so that terms are arranged in a hierarchy. The following relationships are considered hierarchical:

- Genus/species (or class/class member):
  - Apes  
    - BT Primate
  - Buildings, Prefabricated  
    - BT Buildings
  - Women executives  
    - BT Executives
  - Dental anthropology  
    - BT Physical anthropology

- Whole/part:
  - Toes  
    - BT Foot
  - Ethnology  
    - BT Anthropology

- Instance (or generic topic/proper-named example):
  - Whitewater Lake (Wis.)  
    - BT Lakes–Wisconsin  
    - [Whitewater Lake is an instance of a lake in Wisconsin]
  - Belleau Wood, Battle of, France, 1918  
    - BT World War, 1914-1918–Campaigns–France  
    - [The battle of Belleau Wood in 1914 is an instance of a campaign in France during World War I]
BACKGROUND: (Continued)

**Related term references.** In order to link two headings that are neither broader nor narrower than each other, a related term (RT) reference is made from each to the other. Examples:

- Rugs
  - RT Carpets
- Carpets
  - RT Rugs
- Athletes
  - RT Sports
- Sports
  - RT Athletes

Even though headings linked in this way are not hierarchically related, they are mentally associated to such an extent that the link is made explicit in order to reveal alternative headings that might be of interest. In order to avoid subjective judgments, a general guideline for making related term reference links in the subject authority file is that one of the headings should be strongly implied, according to the frames of reference of LCSH users, whenever the other is considered. Frequently the concept represented by one of the headings is a necessary component in the definition of the other. For example, Birds is a necessary part of the definition of Ornithology.

These principles for making references have been applied to new subject headings beginning in 1985. Headings that conform to these principles are coded as "evaluated" with value a in field 008/29 (the box labeled Reference Evaluation on the 008 input screen in the LC ILS). References for those headings established before 1985 that have the value b ("not evaluated") or n ("not applicable" [no references present]) in field 008/29 do not necessarily conform to these principles. References on these older headings are reviewed, revised, and recoded as "evaluated" on a case-by-case basis.
1. Hierarchical references.

a. General rule. When establishing a new heading, follow the principle described above in creating its reference structure, making appropriate BT reference(s) when establishing a new heading. Also follow the guidelines for making references for particular types of headings that are given in specific instruction sheets on those topics, for example, H 690, sec. 10.b and 10.c, for geographic names; H 1332, sec. 4.b., for biological names. The automated system generates the "reciprocal" NT references using the notation NT in Library of Congress Subject Headings. Examples:

- Hot dog rolls ← narrower heading
  BT Bread ← broader heading

- Bread ← narrower heading
  BT Baked products ← broader heading

Except in the situations described below, make at least one BT when establishing a new heading. Make this BT even if both headings begin with the same word. Example:

- Roads, Gravel
  BT Roads

(1) "Orphan" headings. "Orphan" headings, that is, headings having no BT, are generally prohibited in the subject authority file. There are, however, a limited number of situations in which "orphan" headings are permitted, including the following:

- Headings that are "top terms," that is, the broadest topic in a given hierarchy, for example, Science.

- Headings for geographic regions.

- Headings for family names.
I. Hierarchical references.

   a. General rule.

   (1) "Orphan" headings.  (Continued)

   Inverted headings qualified by names of languages, nationalities, ethnic groups, or terms that designate time periods, when the only appropriate BTs are the identical heading without the qualifier, the identical heading with a broader linguistic, national, or ethnic qualifier, or a broader heading with the identical qualifier. For example, Painting, French does not have the BT Painting; Painting, European; or Art, French; and Aesthetics, Ancient does not have the BT Aesthetics.

   Note however that references are routinely made, especially for belles lettres headings of this type, from broader terms with the qualifier in the initial position, for example, Short stories, German has the BT German fiction.

   (2) "Subdivision-to-subdivision" references. In general, do not make a reference from one heading with a subdivision to a narrower heading with the same subdivision. Instead, make the reference link at the level of the unsubdivided headings. Example:

   Lamas
   BT Buddhist priests

   [not Lamas–Lineage
   BT Buddhist priests–Lineage]

   (3) General see also references. Do not make references between individual headings in situations where a general see also reference is appropriate and has been, or should be, made (see H 371).
1. Hierarchical references. (Continued)

b. Number of references to be made. Most single-concept headings belong to only one hierarchy and require only one BT. Some headings may incorporate more than one concept in more than one hierarchy and require additional BTs, but rarely more than three. Link a new heading only to the next broader heading in the logical hierarchy by means of a BT. Example:

Automobiles
   BT Motor vehicles

[not Automobiles
   BT Motor vehicles
   BT Vehicles]

If a new heading is a member of more than one hierarchy, link it to the next broader heading in each hierarchy. Example:

Women college administrators
   BT College administrators
   BT Women executives
   BT Women in education

c. Establishing headings to fill hierarchical "gaps". When establishing a new heading, establish also the next broader heading to use as a BT, if it has not already been established.

Follow this rule in situations where the missing heading comes readily to mind or becomes apparent after checking dictionaries, other thesauri, etc. These situations are generally fairly obvious in the sciences, but less obvious in the humanities and social sciences.
1. Hierarchical references. (Continued)

d. Revising existing reference structures. When establishing a new heading that is an intermediate term in a hierarchy, add the new heading as a BT to the authority records for all existing narrower headings, and delete any BTs that link the existing headings to headings broader than the newly-established intermediate term. Example:

When the heading **Specialty stores** was established with the BT **Stores, Retail**, BT references were also made to the existing headings **Jewelry stores** and **Museum stores**. The BTs linking the latter headings directly to **Stores, Retail** were cancelled, resulting in the following hierarchy:

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Specialty stores
  BT Stores, Retail

Jewelry stores
  BT Specialty stores

Museum stores
  BT Specialty stores
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e. Complex situations. Many subject headings incorporate more than one concept, and therefore do not generally lend themselves to strict hierarchical reference treatment. These include headings modified by prepositional or conjunctional phrases, headings constructed with subdivisions, and headings with certain parenthetical additions. As a general rule, when establishing a new heading of this type, make a BT from the generic heading for the term that is the second element in the heading even though the reference may not be truly hierarchical. Example:

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Hydrogen as fuel
  BT Fuel
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1. Hierarchical references.

   e. Complex situations.  (Continued)

A number of different complex situations have been identified for which special decisions regarding the required BTs have been made. These decisions are reflected in subject authority records in which the references have been coded as "evaluated." On the following pages are examples of some of these decisions.

(1) \[ . . . \] and \[ . . . \] headings. Make a BT from the heading (or its equivalent) that follows the word and (cf. H 310).

(2) Subdivisions.

   (a) Subdivisions that follow the general rule. Make a BT from the heading that corresponds to the subdivision. Example:

   \[ . . . \]–Contracting out  \[ . . . \]–Election
   BT Contracting out  BT Elections

   \[ . . . \]–Transliteration
   BT Transliterations

   Note: In some instances this rule is followed only when there is no more specific heading available for use as a BT. Example:

   \[ . . . \]–Diagnostic use
   BT Diagnosis  [or more specific type of diagnosis, if established]

   (b) Free-floating subdivisions. Some subdivisions that are normally free-floating are occasionally established because of special circumstances. In such situations, make no BT. For example, when Prisoners–Education (May Subd Geog) was established in order to establish Prisoners–Education–Law and legislation (May Subd Geog), no BT was made under Prisoners–Education because –Education is normally free-floating under classes of persons.
1. Hierarchical references.

   e. Complex situations.

      (2) Subdivisions.  (Continued)

      (c) Non-free-floating subdivisions for which no BTs are made.  Certain subdivisions must be established each time they are used. For the following subdivisions of this type, make no BT, since there is no generic heading for the concept represented by the term in the subdivision:

      [. . . ]-Application
      [. . . ]-Complications
      [country]-Foreign relations-[period subdivision]
      [. . . ]-Religious aspects
      [. . . ]-Utilization

      Note: Although no BTs are made in these situations, UF references are required in some cases, as reflected in subject authority records in which the references are coded as "evaluated."

      (d) Topics subdivided by other topics.  Certain topics are constructed in the form of a single heading subdivided by various other topical headings, for example, Advertising-[topic], Conflict of laws-[topic], Selling-[name of product], Strikes and lockouts-[group of workers], etc. In such situations, make no BT.  Example:

      Advertising-Bus lines
      [no BT]

      Note: Although no BTs are made in this situation, H 373 requires that a UF be made from the reversed form.  Example:

      Advertising-Bus lines
      UF Bus lines-Advertising
1. Hierarchical references.

e. Complex situations.  (Continued)

(3) Prepositional phrases.

(a) Phrases that follow the general rule. Make a BT from the heading that corresponds to the term(s) following the preposition. Examples:

Sex instruction for [group of people]
   BT [group of people]

Church work with [group of people]
   BT [group of people]

Communication in [specific field]
   BT [specific field]

[ . . . ] in interior decoration
   BT Interior decoration

(b) Special situations involving prepositional phrases. Case-by-case pattern reference decisions have been made for several types of headings constructed with prepositional phrases, such as diseases or psychological concepts in children. These decisions are reflected in subject authority records in which the references are coded as "evaluated." The following is a representative sample of these decisions:

[group of people] in medicine
   BT Medical personnel

[name of sport] for women
   BT Sports for women

[ . . . ] in the Bible
   [no BT]

[ . . . ] in art
   [no BT]

[ . . . ] in literature
   [no BT]
1. Hierarchical references.

   e. Complex situations.  (Continued)

   (4) Parenthetical qualifiers for legal systems.  Make a BT from the general
   heading for the legal system.  Example:

   [ . . . ] (Roman law)
   BT Roman law

2. Related term references.  In order to focus emphasis on hierarchical references, simplify
   future special projects to revise references in the subject authority file, and reduce the size and
   complexity of Library of Congress Subject Headings, restrictive rules are in effect for making
   related term references with the intended effect of minimizing the number of related term
   references that are made.  Do not make related term references in the following situations:

   ● To link two headings that begin with the same word or word stem.  For example, do
     not link Public libraries and Public librarians or Hand presses and Hand-printed
     books as related terms.

     Exception:  Two such headings may be linked as related terms if they are
     "top terms," that is, if they stand at the top of the hierarchy of a discipline.  
     For example, Libraries and Librarians may be linked as related terms.

   ● To link two headings that have a common broader term at any level of the hierarchy.

     Exception:  Two such headings may be linked as related terms if the
     relationship is so close either that their meanings overlap considerably, or
     that one is needed to define the other, or that they are frequently used
     interchangeably.  For example, Carpets and Rugs may be linked as
     related terms even though they have the common broader term Floor
     coverings.  Such close relationships between terms rarely occur,
     however.
2. Related term references.  (Continued)

- To link two headings if terms at higher levels of either of their respective hierarchies are already linked as related terms. For example, do not link World politics and International organization as related terms, since World politics is linked as a related term to International relations and International relations is at a higher level in the hierarchy for International organization.

Make related term references only in the following situations, and then only if not prohibited by one of the above rules:

- To link two terms with meanings that overlap to some extent, or terms used somewhat interchangeably. Example:

  Boats and boating  Ships
  RT Ships     RT Boats and boating

  [but not

  Search dogs   Rescue dogs
  RT Rescue dogs   RT Search dogs

  since both headings have the broader term Working dogs]

- To link a discipline and object studied. Example:

  Ornithology   Birds
  RT Birds     RT Ornithology

  [but not

  Masks   Mask making
  RT Mask making   RT Masks

  since both headings begin with the same word]
2. Related term references. (Continued)

- To link persons and their fields of endeavor. *Example:*
  
  Medicine
  RT Physicians

  Physicians
  RT Medicine

  
  [but not]

  Banks and banking
  RT Bankers

  Bankers
  RT Banks and banking

  since both headings begin with the same word stem]