Appendix B: Taxonomy of Subject Relationships

By Dee Michel

Abbreviations
USE **Acronyms and abbreviations**

Absolute synonyms
Hard to find in real life, they are really at one end of a continuum. Interchangeability in all contexts. (2)
UF Perfect synonymy
Total synonymy
BT **Synonyms**

Abstract environmental relationships
BT **Environmental relationships**
NT **Discipline/object studied pairs**
Entity/framework pairs
Entity/school of thought pairs
Field of endeavor/practitioner pairs
RT **Process/method pairs**

Abstract property
USE **Thing/abstract property pairs**

Acronyms and abbreviations
E.g., Polyvinyl chloride/PVC; Information retrieval/IR (3)
UF Abbreviations
Full names/abbreviations
BT **Orthographic variants**
RT **Omitted components**

Action/target pairs
Action of a thing or process on another thing or process; Entity or target and the action or process performed on it. Farradane's Reaction /-;. E.g., Repeal of Laws; Drying of Wood; Harvesting/Crops, Binding/Books; Microwaves/Measurement (3)
UF Target/action pairs
BT **Process/recipient pairs**

Adjective/noun pairs
E.g., Molecular/Molecule (1)
UF Noun/adjective pairs
BT **Derivational suffix variants**
RT **Thing/property pairs**

Affinitive relationships
USE **Associative relationships**

Agent/process pairs
E.g, Judges/Administration of justice; Tanners/Tanning; Hunters/Hunting; Counselors/Counseling. (2)
UF Process/agent pairs
Process/person usually associated with it
BT **Instigator/process pairs**

Aggregate partitive relationships
USE **Comprehensive partitive relationships**

Anatomical organ whole/part pairs
UF Body organs
Organs of the body
BT **Anatomical whole/part pairs**
Whole/segment pairs

Anatomical system whole/part pairs
E.g., Nervous system/Central nervous system/Brain
UF Body systems
Systems of the body
BT **Anatomical whole/part pairs**
Whole/systemic part pairs

Anatomical whole/part pairs
E.g., Foot/Toes
BT **Physical whole/part pairs**
NT **Anatomical organ whole/part pairs**
Anatomical system whole/part pairs

Antonymous ideas
USE **Antonyms**

Antonyms
E.g., Hardness/Softness; Tradition/Modernity; Heating/Cooling. (4)
UF Antonymous ideas
Antonymy
BT **Quasi-synonyms**
NT **Complementary antonyms**
Conversive antonyms
Near antonyms

Antonyms—*Continued*

Scalar antonyms
Very loose antonyms
RT **Apparent opposite ideas**
Entity/counteragent pairs
Reciprocals

Antonymy
USE **Antonyms**

Apparent opposite ideas
Ideas which can also be construed as interacting. E.g., Failure/Success; Frustration/Achievement (3)
RT **Antonyms**

Artifact whole/part pairs
Machines, buildings, etc. (1)
UF Thing/artifact pairs
BT **Physical whole/part pairs**

Associated siblings
USE **Coordinate ideas**

Associative relationships
One of the three main types of semantic relationships. Whenever one term is used, the other should always be employed within the common frames of reference shared by the users of the thesaurus; All semantic relationships not equivalent or hierarchical. (3)
UF Affinitive relationships
Related term relationships
NT **Combined ideas**
Conceptually related terms
Contiguity
Definitional associative relationships
Different hierarchy associative relationships
Meaning overlap associative relationships
Same hierarchy associative relationships
Scope issues
Unspecified associative relationships

Attachment/whole pairs
USE **Whole/attachment pairs**

Awareness of a difference
USE **Meaning overlap siblings**

Body organs
USE **Anatomical organ whole/part pairs**

Body systems
USE **Anatomical system whole/part pairs**

BT/NT issue relationships
BT **Quasi-synonyms**
NT **Elements of compound terms**
General to specific 'See' references
Generic posting
RT **Generic terms**
Omitted components

Calculated property
USE **Thing/abstract property pairs**

Causal relationships
Farradane's Causation/: (1)
BT **Same hierarchy associative relationships**
NT **Dependency relationships**
Generic predecessor relationships
Influencing relationships
Instigator/process pairs
Process/method pairs
Raw material/product pairs
RT **Instrument/goal pairs**

Cause/effect pairs
USE **Possible cause/effect pairs**

Class/instance pairs
Sometimes notation used is BT1/NT1. E.g., Movie actors/Charlie Chaplin; Fairy tales/Cinderella; Mountain regions/Alps (3)
UF Class membership
Common noun/proper noun pairs
Examples
Genetic topic/proper named example
Instance/class pairs
Instance relationships
BT **Hierarchical relationships**

Class membership
USE **Class/instance pairs**

Classical inclusion
USE **Genus/species pairs**

Closely related genealogical siblings
E.g., Mules/Horses; (1)
UF Familial (directional) relationship
BT **Closely related siblings**
RT **Genetic predecessor**

Closely related siblings
Terms that share a BT at any level. According to SCM there are three reasons to make an RT: meaning overlap, definitionally related, or frequently interchangeable. I think it is hard to find an example of one of these three conditions where the others don't also apply. E.g., Ships/Boats; Rugs/Carpets.

Closely related siblings—*Continued*

BT **Same hierarchy associative relationships**

NT **Closely related genealogical siblings**
Definitionally related siblings
Frequently interchangeable siblings
Meaning overlap siblings
Substitutes

RT **Method/product pairs**
Near-synonyms

Cognitive synonyms

Same cognitive meaning, not necessarily same connotations (emotive distinctions). Members of pairs yielding sentences with identical truth connotations. E.g., Doctor/Sawbones; Guerilas/Freedom fighters; Violin/Fiddle. (6))

BT **Synonyms**

RT **Style and diction variants**

Combined ideas

Ideas likely to be used in combination. E.g., Diseases of the human body; Iron/Steel (sibs); relationship of Executive/Judiciary (sibs).

BT **Associative relationships**

RT **Contiguity**
Coordinate ideas
Hierarchical relationships

Common language derivational suffix variants

E.g., words ending in -s, -ing, -ation, -er, -ed, -ment, such as Farm/Farms/ Farming/Farmer/Farmed, etc. (1)

BT **Derivational suffix variants**

Common noun/proper noun pairs

USE **Class/instance pairs**

Common nouns

USE **Style and diction variants**

Complementary antonyms

Defined by conjunction and disjunction, i.e., the existance of one quality implies the absence of the other. Usually one adjective is chosen to refer to an underlying concept. But some say to keep these distinct, do not collapse into UF; therefore RT. E.g., Single/Married; Male/Female.

UF Ungradable antonyms

BT **Antonyms**

Complements on a scale

Complements on a scale from O to 100. Conflate to unmarked. E.g., Dryness/Wetness; Smoothness/Roughness; Accuracy/Error.

UF Gradable antonyms

BT **Scalar antonyms**

Composition partitive

NT **Intrinsic partitive relationships**

Composition partitive relationships

See NTs for examples.

BT **Partitive relationships**

NT **Comprehensive partitive relationships**

Comprehensive partitive relationships

Necessarily composed of an aggregate or composite of several members of a class of entities. E.g., Mosaic/Crystals; Dust/Particles (1)

UF Aggregate partitive relationships

BT **Composition partitive relationships**

RT **Product/material pairs**

Concepts and mechanisms for measure

USE **Entity/device for measurement pairs**

Concepts and units of measure

USE **Entity/measure pairs**

Conceptually related terms

6/10 of W's thesaurus use this relationship (1)

BT **Associative relationships**

Concrete environmental relationships

Used to gather and differentiate from other kinds of environmental relationships. See individual NTs for examples.

BT **Environmental relationships**

NT **Entity/environment pairs**
Entity/place pairs
Position in time and space
Process/environment of application pairs
Situation or condition/what may occur pairs

Concurrence

USE **Contiguity**

Considered as relationships

Farradane's Equivalence/=2. E.g., Aluminum oxides/Abrasives; Peat/Humus; Insects as disease carriers. (2)

BT **Same hierarchy associative relationships**

RT **Entity/framework pairs**
Entity/school of thought pairs

Contextual synonyms

The same reading of a word in a given context. There exists no true synonym in all contexts. It is just a matter of degree in how wide a context. The reading will be the same. Qua-

Contextual synonyms—*Continued*
si-synonyms are interchangeable in a smaller range of context than true synonyms. With respect to a given context (thesaurus, subject field); we can decide (1)
BT **Synonyms**

Contiguity
Mental juxtaposition of two concepts. E.g., Ovipositor/Sites; Education/Teaching. (2)
UF Concurrence
Contiguous terms
Ideas used concurrently
BT **Associative relationships**
NT **Definition based contiguity**
Empirical knowledge-based contiguity
RT **Combined ideas**
Parts of equations
Unspecified associative relationships

Contiguity based on definition
USE **Definition based contiguity**

Contiguous terms
USE **Contiguity**

Conversive antonyms
According to Hutchins, documentary languages distinguish. These should not be conflated, and therefore an RT should be made. E.g., Buy/Sell; Husband/Wife. (1)
UF Relational complementarity
BT **Antonyms**

Coordinate ideas
This is hierarchical. E.g., Religion/Christianity. Intemperance/Destitution. (3)
UF Associated siblings
Siblings in array
BT **Same hierarchy associative relationships**
NT **Coordinates with no broader term**
RT **Combined ideas**
Hierarchial relationships
Persons interacting in a special context

Coordinates with no broader term
Terms that are in an array with each other, and all have the same relationship to an unidentified BT. E.g., X ray/Cosmic rays/Gamma rays/Radio waves. (1)
BT **Coordinate ideas**
NT **Parts of equations**
RT **Hierarchical relationships**

Counteragent/entity pairs
USE **Entity/counteragent pairs**

Counteragent/thing pairs
USE **Thing/counteragent pairs**

Countergent/process pairs
USE **Process/counteragent pairs**

Definition based contiguity
E.g., Copyright/Duplication; Robbery/Burglary; Age/Eligibility to vote (3)
UF Contiguity based on definition
BT **Contiguity**
RT **Definitional associative relationships**

Definitional associative relationships
Ideas sharing common elements in their definition--NR. Pairs in which each term is involved in the definition of the other--MJ. E.g., Cells/Cytology; impact of Management/Administration; Management planning/System engineering. (4)
UF Overlapping terms
BT **Associative relationships**
RT **Definition based contiguity**
Definitionally related siblings
Etomologically related variants
Meaning overlap associative relationships

Definitionally related siblings
(1)
BT **Closely related siblings**
RT **Definitional associative relationships**

Dependency relationships
Farradane's Associative/; (c). E.g., Chain reaction/Critical mass (1)
UF Dependent on
BT **Causal relationships**
NT **Entity/predecessor pairs**
Possible cause/effect pairs
Processes in sequence

Dependent on
USE **Dependency relationships**

Derivational suffix variants
Adding a derivational suffix to a word changes its grammatical class. The strange thing here is a list of these pairs can also be considered RTs in some systems. The different grammatical class (part of speech) can be different hierarchy, as in Farms/Farming/Farmers. See NTs for more examples.
BT **Stem equivalents**
NT **Adjective/noun pairs**
Common language derivational suffix variants
Infinitive/gerund pairs

Derivational suffix variants—*Continued*

Scientific language derivational suffix variants

Verb/noun pairs

Device for measuring

USE **Entity/device for measurement pairs**

Device/product pairs

USE **Method/product pairs**

Dialect variants

USE **Dialectal variants**

Dialectal variants

Prefer local term. It is less loaded, most familiar, best understood. The chosen term varies with the place of the index, non local terms are emotionally loaded. E.g., Lifts/Elevators; Aerial/Antenna; Subways/Underground.

UF Dialect variants

Local usage synonyms

BT **Different lexical item variants**

Diction variants

USE **Style and diction variants**

Different hierarchy associative relationships

Terms from different facets (1)

BT **Associative relationships**

NT **Environmental relationships**

Etymologically related associative relationships

Process issue relationships

Property issue associative relationships

RT **Noun not true broader term**

Polyseme

Scope noted term and other possible meanings

Different lexical item pairs

NT **Translation equivalents**

Different lexical item variants

BT **Equivalence relationships**

NT **Dialectal variants**

Different root synonyms

Generic/trade name pairs

Popular/technical term pairs

Style and diction variants

Superceded synonyms

Variant names for emergent concepts

Variation in formality

Different linguistic origin variants

USE **Different root synonyms**

Different root synonyms

E.g., Lawyer/Attorney; Cats/Felines; Freedom/Liberty; Territorial magnetism/Geomagnetism (4)

UF Different linguistic origin variants

Terms of different linguistic origin

BT **Different lexical item variants**

Direct vs. inverted order

USE **Inversion variants**

Discipline/object studied pairs

Farradane's Association/; (b). E.g., Ornithology/Birds; Mask making/Masks; Neurology/Nervous system; Botany/Plants; Meteorology/Wind velocity (3)

UF Object studied/discipline pairs

Subject studied/discipline pairs

BT **Abstract environmental relationships**

RT **Discipline/subdiscipline pairs**

Meaning overlap associative relationships

Discipline/practitioner pairs

USE **Field of endeavor/practitioner pairs**

Discipline/subdiscipline pairs

Used for disciplines or fields of discourse. E.g., Science/Biology; Science/Botany; Anthropology/Ethnology. (1)

UF Subdiscipline/discipline pairs

BT **Topic inclusion**

RT **Discipline/object studied pairs**

Downward mandatory reference

USE **General to specific 'See' references**

Effect/cause pairs

USE **Possible cause/effect pairs**

Elements of compound terms

Whether to establish a compound or use two separate terms in the thesaurus is a matter of binding syntax (see Svenonious). Notation: UF+; E.g., Coal mining use Coal AND Mining; Coal UF+ Coal mining. Automatic transmission fluids use Automatic transmissions AND Transmission fluids. See also note about generic posting, etc. under Genus/species pairs.

BT **BT/NT issue relationships**

Empirical knowledge-based contiguity

E.g., Alcohol containing Solvents; Copyright influencing Duplication. (2)

UF Knowledge based continguity

BT **Contiguity**

Entity and another entity associated with property of first entitity
USE **Entity/entity pairs**

Entity and its characteristic property
USE **Thing/property pairs**

Entity and its environment of operation
USE **Entity/environment pairs**

Entity and its usual place of occurence or manipulation
USE **Entity/place pairs**

Entity and process associated with property of entity
USE **Entity/process pairs**

Entity/counteragent pairs

E.g., Plants/Herbicides; Inflammation/Anti-inflammatory drugs. (1)

UF Counteragent/entity pairs
BT **Instigator/process pairs**
Process issue relationships
NT **Process/counteragent pairs**
Thing/counteragent pairs
RT **Antonyms**
Reciprocals

Entity/device for measurement pairs

E.g. measure of Intelligence using a Test; Temperature/Thermometer

UF Concepts and mechanisms for measure
Device for measuring
Mechanisms for measuring
BT **Property issue associative relationships**

Entity/entity pairs

E.g., Government economic policy on Commerical technology; Photochemical reaction inplants due to Solar energy (1)

UF Entity and another entity associated with property of first entitity
BT **Property issue associative relationships**

Entity/environment pairs

E.g., Labor Party in Great Britain; use of Solar cell in Space (1)

UF Entity and its environment of operation
Environment of operation
BT **Concrete environmental relationships**
RT **Entity/place pairs**

Entity/framework pairs

Entity and entity forming framework of consideration for first entity. E.g., evaluation of US Economic policy from the point of view of Political exigency. (1)

UF Framework/entity pairs
Point of view/object studied pairs
BT **Abstract environmental relationships**
RT **Entity/school of thought pairs**

Entity/measure pairs

Don't you measure a property? E.g., Threshold for Hearing; Hearing expressed in Decibels; Electric current/Amperes (4)

UF Concepts and units of measure
Measure/entity pairs
Units of measure
BT **Property issue associative relationships**

Entity/paradigm pairs
USE **Entity/school of thought pairs**

Entity/place pairs

Location is a place frequently connected with the presence, occurence or manipulation of the thing, process or state in question. The location must, to some extent, constitute part of the contextual definition of the objects and activities--H47 E.g., Patient in Hospital; Hospital-patient relations; Student and School; Foreign languages/Language lab (4))

UF Entity and its usual place of occurence or manipulation
Location/entity pairs
Place of occurence
Property/location pairs
State/location pairs
Thing/location pairs
BT **Concrete environmental relationships**
RT **Entity/environment pairs**

Entity/predecessor pairs

E.g., relationship between Cloud and Rain; relationship of Acts and Bills. (3)

UF Precursor/entity pairs
Predecessor/entity pairs
BT **Dependency relationships**

Entity/process pairs

E.g., Evaluation of economic policy of Government; Measurement of the strength of Leather. (1)

UF Entity and process associated with property of entity
BT **Process/recipient pairs**
RT **Process/property pairs**

Entity processed/process pairs
USE **Process/entity processed pairs**

Entity/school of thought pairs
Entity and school of thought according to which the entity is studied. E.g., Psychology/Gestalt school; Ayurveda/Medicine.
UF Entity/paradigm pairs
Entity/system pairs
Paradigm/entity pairs
School of thought/entity pairs
System/entity pairs
BT **Abstract environmental relationships**
RT **Considered as relationships**
Entity/framework pairs

Entity studied in mutual relationship to another entity
E.g., Less developed countries/Underdeveloped coutries; Conductivity/Super conductivity. (1)
BT **Same hierarchy associative relationships**
NT **Parts of equations**

Entity/system pairs
USE **Entity/school of thought pairs**

Environment of operation
USE **Entity/environment pairs**

Environmental relationships
BT **Different hierarchy associative relationships**
NT **Abstract environmental relationships**
Concrete environmental relationships
RT **Persons interacting in a special context**

Eponym/descriptive pairs
E.g., Lou Gehrig's disease/Amyotrophic lateral sclerosis
BT **Popular/technical term pairs**

Equivalence relationships
One of the three main types of semantic relationships.
NT **Different lexical item variants**
Lexical variants
Quasi-synonyms
Synonyms
RT **Polysemes**

Etymologically related associative relationships
But do not represent the same kind of thing-p.20, e.g., Mathematics/Mathematicians. Different hierarchies. (1)
BT **Different hierarchy associative relationships**
RT **Definitional associative relationships**
Stem equivalents

Examples
USE **Class/instance pairs**

Extrasemantic relationships
Probable relevance; Relying on facts rather than words or terms; Contingent, synthetic truths; Connection can be found neither in linguistic nor in conceptual analysis of terms, but relies on hidden relatedness of real things disclosed by experience (like expert systems) (1)
BT **Meaning overlap associative relationships**
RT **Possible cause/effect pairs**
Similarity

Familial (directional) relationship
USE **Closely related genealogical siblings**

Familial relationships
USE **Genealogical relationships**

Field of endeavor/practitioner pairs
E.g., Physicians/Medicine; Bankers/Banks and banking; Mathematicians/Mathematics (2)
UF Discipline/practitioner pairs
Person and field of endeavor
BT **Abstract environmental relationships**

Framework/entity pairs
USE **Entity/framework pairs**

Frequently interchangeable siblings (1)
SA For frequently interchangeable siblings of which only one has been established.
BT **Closely related siblings**
RT **Quasi-synonyms**

Full names/abbreviations
USE **Acronyms and abbreviations**

Genealogical relationships
E.g., relationship between parent, children and grandchildren.
UF Familial relationships
Genealogy
BT **Non-inclusion hierarchical relationships**

Genealogy
USE **Genealogical relationships**

General to specific 'See also' references
USE **Genus/species pairs**

General to specific 'See' references

The broader term is always used in the narrower sense. E.g., Asylum. SEE Political asylum. (1 source) Three other sources have an associative relationship called 'Generic term which shouldn't be used if a more specific term can be found.' Their example is Position RT Angle, Occupation, Rank, Sequence.

UF Downward mandatory reference
BT **BT/NT issue relationships**
Genus/species pairs

Generic posting

If you have a broader name of a class, and the narrower names of individual members, choose the broader name of the class. Use only for areas peripheral to the thesaurus. E.g., Plant waxes/Waxes; Beds, chairs, desks/Furniture.

UF Specific to general 'See' reference
BT **BT/NT issue relationships**
RT **Generic terms**

Generic predecessor relationships

E.g., Father/Son (1)

BT **Causal relationships**
Non-inclusion hierarchical relationships
RT **Closely related genealogical siblings**

Generic relationships

USE **Genus/species pairs**

Generic terms

E.g., Position-RT angle, occupation, rank, sequence; which should not be used if a more specific term can be found (3)

BT **Scope issues**
RT **BT/NT issue relationships**
Generic posting
Hierarchical relationships
Same hierarchy associative relationships

Generic/trade name pairs

Make choice based on relative familiarity and local usage. E.g., Refrigerators/Frigidares; Petroleum jelly/Vaseline; Tissues/Kleenex. (4)

UF Trade name/generic name pairs
Trade name synonyms
BT **Different lexical item variants**
RT **Substitutes**

Genetic topic/proper named example

USE **Class/instance pairs**

Genus/species pairs

The relationship between a genus and its species is necessarily true, an analytic truth. The difference is based on a real world attribute, and the relationship is based on common properties. This is classical inclusion, as opposed to class membership (see Class/instance pairs). Farradane's Appurtenance /(2. Alternate notation (ANSI): BTG/NTG. E.g. Primates/Apes; Actors/Movie actors; Executives/Women executives; Succulent plants/Cacti. (6 sources)

UF Classical inclusion
General to specific 'See also' references
Generic relationships
Hyponym/hypernym pairs
Semantic components
Specific to general 'See' references
BT **Hierarchical relationships**
NT **General to specific 'See' references**
RT **General to specific 'See' references**
Generic posting

Geographic region/subregion

USE **Geographic whole/part pairs**

Geographic whole/part pairs

Proper name. E.g., Canada/Ontario/Ottawa. Some thesauri don't include proper names

UF Geographic region/subregion
BT **Physical whole/part pairs**

Goal/instrument pairs

USE **Instrument/goal pairs**

Gradable antonyms

USE **Complements on a scale**

Hierarchical relationships

One of the three main semantic relationships.

NT **Class/instance pairs**
Genus/species pairs
Non inclusion hierarchical relationships
Partitive relationships
RT **Closely related genealogical siblings**
Combined ideas
Coordinate ideas
Coordinate with no broader term
Generic term
Omitted components
Same hierarchy associative relationships

Hyponym/hypernym pairs

USE **Genus/species pairs**

Idea near synonymous to another idea
USE **Near synonyms**

Ideas used concurrently
USE **Contiguity**

Inclusive partative
USE **Whole/part pairs**

Indirect object
Not found in Thesauri, self-activity/*2 (1)
BT **Process issue relationships**

Indirect property
USE **Thing/abstract property pairs**

Infinitive/gerund pairs
E.g., Learn/Learning
BT **Derivational suffix variants**

Influencing relationships
The effect of one activity or process upon another; weaker than causal; may be non-semantic components in common, relationship based solely on frequent syntagmatic concurrence. (2)
BT **Causal relationships**

Instance/class pairs
USE **Class/instance pairs**

Instance relationships
USE **Class/instance pairs**

Instigator/process pairs
Farradane's Associative/;(2). See NT's for examples
UF Process/instigator pairs
BT **Causal relationships**
Process issue relationships
NT **Agent/process pairs**
Entity/counteragent pairs
Instrument/goal pairs
Instrument/process pairs
Intransitive verb situations
Process/counteragent pairs
RT **Process/product pairs**
Producer/product pairs
Thing/counteragent pairs

Instrument/goal pairs
E.g., Advertising/Selling (1)
UF Goal/instrument pairs
Instrumentality relationships
BT **Instigator/process pairs**
RT **Causal relationships**
Process/method pairs

Instrument/process pairs
E.g., Pencils/Writing; Teaching machine/Programmed instruction; Thermometer/Temperature measurement; Abrasives/Grinding (1)
UF Process/instrument pairs
BT **Instigator/process pairs**
RT **Method/product pairs**
Process/method pairs

Instrument/product pairs
USE **Method/product pairs**

Instrumentality relationships
USE **Instrument/goal pairs**

Intransitive verb situations
Farradane's Self-activity/*(1). E.g., Plant/Wilting
BT **Instigator/process pairs**

Intrinsic partitive relationships
Necessarily composed of, e.g., Diamond/Carbon (2)
BT **Composition partitive**

Inversion variants
E.g., Truck driving/Driving, Truck; Irish songs/Songs, Irish (5)
UF Direct vs. inverted order
Permutations of identical combinations of words
BT **Syntactic variants**

Irregular plural/singular pairs
E.g., Mouse/Mice (1)
UF Singular/irregular plural pairs
BT **Plural/singular pairs**

Jargon terms
USE **Style and diction variants**

Knowledge based continguity
USE **Empirical knowledge-based contiguity**

Lexical variants
Different word forms for the same expression. These forms may derive from spelling or grammatical variation or from abbreviated formats but they are based on the same lexical item, as opposed to Different lexical item pairs. (3)
UF Morphological and grammatical relationships
Word form variants
BT **Equivalence relationships**
NT **Orthographic variants**
Stem equivalents
Syntactic variants

Limitations
USE **Substitutes**

Local usage synonyms
USE **Dialectal variants**

Location/entity pairs
USE **Entity/place pairs**

Material/product pairs
USE **Product/material pairs**

Meaning overlap associative relationships
E.g., Ships/Boats and boating; Search dogs/Rescue dogs. Meanings overlap to some extent. (1)
BT **Associative relationships**
NT **Extrasemantic relationships**
Used somewhat interchangeably
RT **Definitional associative relationships**
Discipline/object studied pairs
Near synonyms

Meaning overlap siblings
Farradane's Distinctness/)#1. E.g., Polishing/Brushing/Cleaning/Rubbing down (2)
UF Awareness of a difference
BT **Closely related siblings**
RT **Definitionally related siblings**

Measure/entity pairs
USE **Entity/measure pairs**

Mechanisms for measuring
USE **Entity/device for measurement pairs**

Medical/common term pairs
E.g., Thorax/Chest (1)
BT **Popular/technical term pairs**

Meronymy
USE **Whole/part pairs**

Method/process pairs
USE **Process/method pairs**

Method/product pairs
Product and device and method used in producting it. E.g., Hole by Drill, Drill for Hole making purpose; Political pressure through Non-cooperation; Photograph/Camera (2)
UF Device/product pairs
Instrument/product pairs
Product/method pairs
BT **Process issue relationships**
RT **Closely related siblings**
Instrument/process pairs
Process/method pairs
Process/recipient pairs

Morphological and grammatical relationships
USE **Lexical variants**

Morphological variant synonyms
USE **Stem equivalents**

Near antonyms
(1)
BT **Antonyms**
RT **Very loose antonyms**

Near synonyms
Nearly coextensive terms exist in a thesaurus in order to allow shades of meaning in indexing and searching; reciprocal by definition, e.g., Automatic translation/Computer-aided translation; Life-long education/Adult education (4)
UF Idea near synonymous to another idea
Near synonymy
BT **Quasi-synonyms**
RT **Closely related siblings**
Meaning overlap associative relationships

Near synonymy
USE **Near synonyms**

Non inclusion hierarchical relationships
BT **Hierarchical relationships**
NT **Genealogical relationships**
Generic predecessor relationships
Organizational reporting

Non-physical whole/part pairs
Used for hierarchical, organizational, corporate, social or political strings. E.g., Countries/States or provinces/Cities; Armies/Divisions (Military/Battalions/ Regiments. Not proper names in ANSI; proper names in KT p186.
BT **Whole/part pairs**
RT **Organizational reporting**
Parts of equations

Noun/adjective pairs
USE **Adjective/noun pairs**

Noun not true broader term
E.g., Ducks/Rubber ducks; Fishes/Fossil fishes (1)
BT **Scope issues**
RT **Different hierarchy associative relationships**

Object studied/discipline pairs
USE **Discipline/object studied pairs**

Omitted components
BT **Orthographic variants**
RT **Acronyms and abbreviations**
BT/NT issue relationships
Hierarchical relationships
Quasi-synonyms

One thing caused by another
USE **Possible cause/effect pairs**

Organizational reporting
E.g., Sergeant/Private.
BT **Non-inclusion hierarchical relationships**
RT **Non-physical whole/part pairs**

Organs of the body
USE **Anatomical organ whole/part pairs**

Orthographic variants
(2)
BT **Lexical variants**
NT **Acronyms and abbreviations**
Omitted components
Spacing and punctuation variants
Spelling variants

Overlapping terms
USE **Definitional associative relationships**

Paradigm/entity pairs
USE **Entity/school of thought pairs**

Part/whole pairs
USE **Whole/part pairs**

Partitive relationships
Alternate notation: BTP/NTP Some systems consider these hierarchical, others associative
BT **Hierarchical relationships**
Same hierarchy associative relationships
NT **Composition partitive relationships**
Whole/part pairs

Parts of equations
Farradane's Appurtenance /). E.g., Density/Mass/Volume. (1)
BT **Coordinates with no broader term**
Entity studied in mutual relationship to another entity
RT **Contiguity**
Non-physical whole/part pairs
Property issue associative relationships

Pejorative vs. neutral vs. complimentary connotation
USE **Style and diction variants**

Perfect synonymy
USE **Absolute synonyms**

Permutations of identical combinations of words
USE **Inversion variants**

Person and field of endeavor
USE **Field of endeavor/practitioner pairs**

Persons interacting in a special context
E.g., Doctor/Patient; Teacher/Student; Student/Student advisor. (3)
BT **Same hierarchy associative relationships**
RT **Coordinate ideas**
Environmental relationships

Phrase variants
Binding syntax, e.g., Bird hunting/Hunting of birds; Light sources/Sources of light (2)
UF Prepositions and conjunctions
BT **Syntactic variants**

Physical or intrinsic property
Farradane's Appurtenance /(3. E.g., Soils/Soil properties; soil structure; Non-cohesive soils/Angle of repose (1)
BT **Thing/property pairs**

Physical whole/part pairs
(1)
BT **Whole/part pairs**
NT **Anatomical whole/part pairs**
Artifact whole/part pairs
Geographic whole/part pairs

Place of occurence
USE **Entity/place pairs**

Plesionyms
There is always one member of a pair which it is possible to assert without paradox, while simultaneously denying the other member: "It wasn't foggy last Friday--just misty." (1)
BT **Synonyms**

Plural/singular pairs
Count nouns are pluralized, e.g., how many Cars. Mass nouns are kept singular, e.g., how much Molasses (2)
UF Singular/plural pairs
BT **Stem equivalents**
NT **Irregular plural/singular pairs**
Regular plural/singular pairs

Point of view/object studied pairs
USE **Entity/framework pairs**

Polysemes
Multimeaning term which has been limited by context or made unambiguous from other meanings. E.g., recognition through award also BT remembering (3)
BT **Scope issues**
RT **Different hierarchy associative relationships**
Equivalence relationships

Polysemes—*Continued*
Near synonyms
Scope noted term and other possible meanings

Popular/technical term pairs
Technical is more neutral vs. familiar to uninitiated.
UF Popular terms vs. scientific names
Professional vs. lay context
Scientific vs. popular variants
BT **Different lexical item variants**
NT **Eponym/descriptive pairs**
Medical/common term pairs

Popular terms vs. scientific names
USE **Popular/technical term pairs**

Position in time and space
Farradane's Dimensional /+ 1. E.g., Underground/Cisterns, Streams (1); see also Colon classification facets.
BT **Concrete environmental relationships**

Possible cause/effect pairs
Farradane's Causation /:1; E.g,. Injury caused by accident; Poverty due to unemployment; Braking/Sideslipping; Juvenile delinguency/Hostility; Death/Bereavement; Epilepsy/Convulsion.
UF Cause/effect pairs
Effect/cause pairs
One thing caused by another
BT **Dependency relationships**
RT **Extrasemantic relationships**

Precursor/entity pairs
USE **Entity/predecessor pairs**

Predecessor/entity pairs
USE **Entity/predecessor pairs**

Prepositions and conjunctions
USE **Phrase variants**

Process/agent pairs
USE **Agent/process pairs**

Process and device method
USE **Process/method pairs**

Process/counteragent pairs
UF Countergent/process pairs
BT **Entity/counteragent pairs**
Instigator/process pairs

Process/entity processed pairs
E.g., Evaluation of Economic policy; Treatment of Disease (1)
UF Entity processed/process pairs
Process/thing pairs
Thing/process pairs
BT **Process/recipient pairs**

Process/environment of application pairs
Also called 'Environment of occurance'. E.g., Government policy or commercial technology; Boiling of water at high altitude; Teaching in school
UF Process/location pairs
BT **Concrete environmental relationships**
NT **Through situation**
RT **Entity/environment pairs**
Entity/place pairs

Process/instigator pairs
USE **Instigator/process pairs**

Process/instrument pairs
USE **Instrument/process pairs**

Process issue relationships
This is not a real term. It is used to collocate associative relationships having to do with process issues.
BT **Different hierarchy associative relationships**
NT **Entity/counteragent pairs**
Indirect object
Instigator/process pairs
Method/product pairs
Process/method pairs
Process/property pairs
Process/recipient pairs
Producer/product pairs
Product/material pairs

Process/location pairs
USE **Process/environment of application pairs**

Process/method pairs
E.g., Landing/Landing gear; Mass communication using TV; Teaching using Audiovisual aids; Programmed instruction/Teaching machine.
UF Method/process pairs
Process and device method
BT **Causal relationships**
Process issue relationships
RT **Abstract environmental relationships**
Instrument/goal pairs
Instrument/process pairs
Method/product pairs

Process/person usually associated with it
USE **Agent/process pairs**

Process/product pairs

E.g., Cooking of food/Cooked food; Prestress steel/Prestressing; Ship/Ship building; Cloth/Weaving; Tears/Lacrimation. (6)

UF Product/action pairs
Product/process pairs
Thing/process pairs
BT **Process/recipient pairs**
RT **Instigator/process pairs**
Raw material/product pairs

Process/property issue pairs
NT **Property/process performed on it pairs**

Process/property of entity pairs

E.g., Tanning in relationship to Tannability of leather; Voting age and Franchise; Orderability/Orgainizing. (2)

UF Property of object associable/process pairs
BT **Process/property pairs**
RT **Entity/process pairs**

Process/property pairs

E.g., Detonation waves produced by Detonation; Impact of Nonviolence. (4)

UF Property/process pairs
BT **Process issue relationships**
Property issue associative relationships
NT **Process/property of entity pairs**
RT **Thing/property pairs**

Process/recipient pairs

This is not a real term. It is used to collocate associative relationships having to do with recipients, targets or objects of a process or activity.

UF Recipient/process pairs
BT **Process issue relationships**
NT **Action/target pairs**
Entity/process pairs
Process/entity processed pairs
Process/product pairs
RT **Method/product pairs**
Producer/product pairs
Property/process preformed on it pairs
Thing/counteragent pairs

Process/thing pairs
USE **Process/entity processed pairs**

Processes in sequence

No semantic component in common, based on frequent syntagmatic concurrene. E.g., diagnosis by land. physical examination, settlement of disputes by arbitration. (4)

BT **Dependency relationships**

Producer/product pairs

E.g., Toy factories/Toys (1)

UF Product/producer pairs
BT **Process issue relationships**
RT **Instigator/process pairs**
Process/recipient pairs

Product/action pairs
USE **Process/product pairs**

Product/material pairs

Not a necessary relationship. E.g., table made out of wood, deterioration of wood of table, gold ornaments, paper/books, toys/plastic. (3()

UF Material/product pairs
BT **Process issue relationships**
RT **Comprehensive partative relationships**
Raw material/product pairs

Product/method pairs
USE **Method/product pairs**

Product/process pairs
USE **Process/product pairs**

Product/producer pairs
USE **Producer/product pairs**

Professional vs. lay context
USE **Popular/technical term pairs**

Property issue associative relationships
BT **Different hierarchy associative relationships**
NT **Entity/device for measurement pairs**
Entity/entity pairs
Entity/measure pairs
Process/property pairs
Property/property as attribute pairs
Thing/application pairs
Thing considered as attribute of another thing
Thing/property pairs
RT **Parts of equations**
Property/property pairs

Property/location pairs
USE **Entity/place pairs**

Property of object associable/process pairs
USE **Process/property of entity pairs**

Property/process pairs
USE **Process/property pairs**

Property/process performed on it pairs

E.g., Measurement of Voltage; Control of Freedom of the press; Charge/Charge measurement. (3)

Property/process performed on it pairs— *Continued*

BT **Process/property issue pairs**

RT **Process/recipient pairs**

Property/property as attribute pairs

What's the difference between property and attribute?, e.g., skew/skew girdes. (3)

BT **Property issue associative relationships**

Property/property pairs

(May fit NR somewhere), e.g., Charge (electric)/Charge measurement (1)

BT **Same hierarchy associative relationships**

RT **Property issue associative relationships**

Quasi-synonyms

Many indexing languages adopt only one member of a pair of quasi-synonyms. e.g., Lighting/Illumination; Duration/Time; Height/Altitude; Rugs/Carpets; in doing so we should note that the sense of the lexeme selected is subtly changed. It now refers not only to what it does but also to whatever its partner refers to; also antonyms; more specific not used; overlapping meaning in other ways.

BT **Equivalence relationships**

NT **Antonyms**

BT/NT issue relationships

Near synonyms

RT **Frequently interchangeable siblings**

Omitted components

Raw material/product pairs

Raw material is used to produce something different; the product isn't made out of the raw material, but results from a process acting on it. Farradane's Causation.:2. E.g., Coal/Coal gas (1)

BT **Causal relationships**

RT **Process/product pairs**

Product/material pairs

Recipient/process pairs

USE **Process/recipient pairs**

Reciprocals

Farradane's Distinctness/, 3. E.g., Conductivity/Resistivity. (1)

BT **Same hierarchy associative relationships**

RT **Antonyms**

Entity/counteragent pairs

Referential identity

USE **Same referent synonyms**

Regular plural/singular pairs

E.g., Houses/House

UF Singular/regular plural pairs

BT **Plural/singular pairs**

Related term relationships

USE **Associative relationships**

Relational complementarity

USE **Conversive antonyms**

Same hierarchy associative relationships (2)

BT **Associative relationships**

NT **Causal relationships**

Closely related siblings

Considered as relationships

Coordinate ideas

Entity studied in mutual relationship to another entity

Partitive relationships

Persons interacting in a special context

Property/property pairs

Reciprocals

Similarity

RT **Generic terms**

Hierarchical relationships

Same referent synonyms

Same referent, not necessarily the same sense, e.g., Morning star/Evening star; Leader of the Liberal Party/Prime minister. True now.

UF Referential identity

BT **Synonyms**

Same sense synonyms

Those pairs of words where same sense is a sufficient condition for synonymy, but the same reference is not necessary in all contexts.

BT **Synonyms**

Scalar antonyms

Implicitly comparative; not mutually exclusive; are more neutral or unmarked; works for nouns as well as adjectives.

BT **Antonyms**

NT **Complements on a scale**

Unequivalent opposites

School of thought/entity pairs

USE **Entity/school of thought pairs**

Scientific language derivational suffix variants

-cide, -graph, -lyse, -ologoy (1)

BT **Derivational suffix variants**

Scientific vs. popular variants

USE **Popular/technical term pairs**

Scope issues

This is not a real term. It is used to collocate associative relationships having to do with scope issues. See NTs for examples.

BT **Associative relationships**

NT **Generic terms**
Noun not true broader term
Polysemes
Scope noted term and other possible meanings

Scope noted term and other possible meanings

E.g., mobility-SN capacity for physical movement-RT geographic mobility, social mobility. In natural language which has been excluded by scope note. (3)

BT **Scope issues**

RT **Different hierarchy associative relationships**
Polyseme

Segmental part/whole pairs

USE **Whole/segmental part pairs**

Semantic components

USE **Genus/species pairs**

Semantic factor equivalents

To express a concept by combining two or more terms in the manner of semantic factoring. (1)

Siblings in array

USE **Coordinate ideas**

Similarity

Two terms referring to objects which bear some kind of similarity (in structure, or in physical or social environment). E.g., Eskimo/Turkish language (structural similarity), Brittany/Auvergne (demographic similarity). This is type 2 of Maniez's extrasemantic relationships. The criterion applied here is 'probable relevance'.

BT **Same hierarchy associative relationships**

RT **Extrasemantic relationships**

Singular/irregular plural pairs

USE **Irregular plural/singular pairs**

Singular/plural pairs

USE **Plural/singular pairs**

Singular/regular plural pairs

USE **Regular plural/singular pairs**

Situation or condition/what may occur pairs

E.g., Price rise during inflation; Political unstability due to Civil war; Leisure time/Reading (2)

BT **Concrete environmental relationships**

Slang

USE **Style and diction variants**

Spacing and punctuation variants

E.g., Online/On-line; Database/Data base; USA/U.S.A./U S A/ U. S. A.

BT **Orthographic variants**

Specific to general 'See' reference

USE **Generic posting**

Specific to general 'See' references

USE **Genus/species pairs**

Spelling variants

E.g., Behavior/Behaviour; Color/Colour; Romania/Rumania/Roumania; Disc/Disk (4)

BT **Orthographic variants**

RT **Translation equivalents**

State/location pairs

USE **Entity/place pairs**

Stem equivalents

E.g., Walk/Walks/Walking/Walked; Computer/Computers (inflectional); Compute/Computes (derivational); Flammable/Inflammable (5)

UF Morphological variant synonyms
Stem variants
Word form variants

BT **Lexical variants**

NT **Derivational suffix variants**
Plural/singular pairs

RT **Etymologically related pairs**

Stem variants

USE **Stem equivalents**

Style and diction variants

E.g., Sweat/Perspire; Regurgitate/Vomit/Throw up/Barf/Upchuck; Psychiatrists/Shrinks; Helicopters/Whirly birds.

UF Common nouns
Diction variants
Jargon terms
Pejorative vs. neutral vs. complimentary connotation
Slang

BT **Different lexical item variants**

RT **Cognitive synonyms**

Subdiscipline/discipline pairs

USE **Discipline/subdiscipline pairs**

Subject studied/discipline pairs

USE **Discipline/object studied pairs**

Substitutes

Farradane's Distinctness /)2. E.g., Butter/Margarine

UF Limitations

BT **Closely related siblings**

RT **Generic/trade name pairs**

Superceded synonyms

Used to relate current jargon to more traditional term; used by today's enquirers (3)

BT **Different lexical item variants**

Synonymous ideas

USE **Synonyms**

Synonyms

Eg. India and Bharat; Electrical resistivity and electrical conductivity. Refer from forbidden terms to terms that are synonymous with them. (4)

UF Synonymous ideas

BT **Equivalence relationships**

NT **Absolute synonyms**
Cognitive synonyms
Contextual synonyms
Plesionyms
Same referent synonyms
Same sense synonyms
True synonyms

Syntactic variants

BT **Lexical variants**

NT **Inversion variants**
Phrase variants

System/entity pairs

USE **Entity/school of thought pairs**

Systemic part/whole pairs

USE **Whole/systemic part pairs**

Systems of the body

USE **Anatomical system whole/part pairs**

Target/action pairs

USE **Action/target pairs**

Temporary or variable property

Dimensional/+3, e.g., environments/humidity, temperature (1)

BT **Thing/property pairs**

Temporary state

Farradane's Dimensional /+2. E.g., temperature; electric charge; speed; Cutting/Cutting speed. (1)

BT **Thing/property pairs**

Terms of different linguistic origin

USE **Different root synonyms**

Thing/abstract property pairs

Faradane's Association #3 (1)

UF Abstract property
Calculated property
Indirect property

BT **Thing/property pairs**

Thing/application pairs

May be no semantic component in common, based on frequency syntagmatic co-occurence, e.g., copper pipes/water pipes, computer for data processing, data processing capability of computer, goods as collateral security, adaptive filters/signal process. (5)

BT **Property issue associative relationships**

Thing/artifact pairs

USE **Artifact whole/part pairs**

Thing considered as attribute of another thing

E.g., Spark(ing) of a spark plug, Constitution of India, Arcs and arc fornaces (4)

BT **Property issue associative relationships**

Thing/counteragent pairs

UF Counteragent/thing pairs

BT **Entity/counteragent pairs**

RT **Instigator/process pairs**
Process/recipient pairs

Thing/location pairs

USE **Entity/place pairs**

Thing/process pairs

USE **Process/entity processed pairs**
Process/product pairs

Thing/property pairs

E.g., frequency of vibration; voting behavior of electorate; frequency of words; coherence of lasers; high intelligence of gifted children; toxicity/poisons; Surface tension/Liquids. (4)

UF Entity and its characteristic property

BT **Property issue associative relationships**

NT **Physical or intrinsic property**
Temporary or variable property
Temporary state
Thing/abstract property pairs

RT **Adjective/noun pairs**
Process/property of entity pairs
Raw material/product pairs

Through situation

Farradane's Self-activity /*3. E.g., Closed conduit flow/Water pipes.

BT **Process/environment of application pairs**

Topic inclusion

2 areas of knowledge (Personality/Psychology); Chapter title/Title of book; Table of contents/Subheadings; Branches/Subheadings discipline. Items of knowledge not in vocabulary; Trees of knowledge; Discipline-oriented classification (3)

UF Topic/subtopic pairs

BT **Whole/part pairs**

NT **Discipline/subdiscipline pairs**

Topic/subtopic pairs

USE **Topic inclusion**

Total synonymy

USE **Absolute synonyms**

Trade name/generic name pairs

USE **Generic/trade name pairs**

Trade name synonyms

USE **Generic/trade name pairs**

Translation equivalents

(1)

BT **Different lexical item pairs**

RT **Spelling variants**

True synonyms

Same cognotive meaning, style, social status, emotional weight. Defined after cognitive is the same (H p.37); Rare in natural language-ANSI p15. (3)

BT **Synonyms**

Unequivalent opposites

A=fixed point, usually 0, b=all other values, maybe not conflate, e.g.,impermeable, permeable.

BT **Scalar antonyms**

Ungradable antonyms

USE **Complementary antonyms**

Units of measure

USE **Entity/measure pairs**

Unspecified associative relationships

Farradane's Association /;. Ďustbin

BT **Associative relationships**

RT **Contiguity**

Used somewhat interchangeably

E.g., Boats/Ships (1)

BT **Meaning overlap associative relationships**

Variant names for emergent concepts

E.g., Hovercraft/Air cushion vehicles (1)

BT **Different lexical item variants**

Variation in formality

BT **Different lexical item variants**

Verb/noun pairs

E.g., Select/Elections (1)

BT **Derivational suffix variants**

Very loose antonyms

No negation or exclusion, some implication of polarity, e.g. Mind/Body, Creator/Creature, Compounds: Car accidents/Highway safety, Studies of wars/Peace research. See Allen's synonyms and antonyms, e.g. Mental illnes/Mental health. Perceived as synonyms.

BT **Antonyms**

RT **Near antonyms**

Whole/attachment pairs

E.g., Arm/Hand

UF Attachment/whole pairs

BT **Whole/part pairs**

Whole/integral part pairs

E.g., Arm/Elbow (1)

BT **Whole/part pairs**

Whole/part pairs

Farradane's Appur? /c? Test: X is a part of Y. Ďased on structural/spatial relations. Parts may differ among themselves, and in certain cases may not even be comparable--KT186

UF Inclusive partative

Meronymy

Part/whole pairs

BT **Partitive relationships**

NT **Non-physical whole/part pairs**

Physical whole/part pairs

Topic inclusion

Whole/attachment pairs

Whole/integral part pairs

Whole/piece pairs

Whole/segmental part pairs

Whole/systemic part pairs

Whole/piece pairs

A piece is arbitary, well formed branching hierarchy not a lexical hierarchy, e.g., Broken piece of clock. Part is autonomous, non-arbitary boundaries; determinate function with respect to whole, e.g., Clock/Hand (1)

BT **Whole/part pairs**

Whole/segment pairs

NT **Anatomical organ whole/part pairs**

Whole/segmental part pairs

E.g., House/Rooms

UF Segmental part/whole pairs

BT **Whole/part pairs**

Whole/systemic part pairs

E.g., House/Plumbing. (really should go under a node label by type of connection)

UF Systemic part/whole pairs

BT **Whole/part pairs**

NT **Anatomical system whole/part pairs**

Word form variants
USE **Lexical variants**
Stem equivalents