EcoLexicon Semantic Sketch Grammar

Version 1.0 (1 September 2017)

TreeTagger for English v2

http://ecolexicon.ugr.es/essg

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*STRUCTLIMIT s

*DEFAULTATTR tag

*DUAL
="%w" is the generic of.../"%w" is a type of...

#1 HYPO is a type of HYPER

2:"N.*" [tag!="V.*"]{0,7} [lemma="be|,|:|belong|\("] [tag!="V.*"]{0,7} [lemma="type|kind|example|group|class|sort|category|family|species|subtype|subfamily|subgroup|subclass|subcategory|subspecies"] [word="of"] [tag!="V.*"]{0,7} 1:"N.*"

#2 type of HYPER includes/is HYPO

("DT"|"CD"|[word="some|several|any|various|distinct|different"]) "RB.*"* "JJ.*"* [lemma="type|kind|example|group|class|sort|category|family|species|subtype|subfamily|subgroup|subclass|subcategory|subspecies"] [word="of"] [tag!="V.*|IN"]{0,5} 1:"N.*" []{0,3} [lemma="include|be"] [tag!="V.*|IN.*"]{0,7} 2:"N.*"

#3 type of HYPER ranges from HYPO to HYPO

("DT"|"CD"|[word="some|several|any|various|distinct|different"]) "RB.*"* "JJ.*"*
[lemma="type|kind|example|group|class|sort|category|family|species|subtype|subfamily|subgroup|subclass|subcategory|subspecies"] [word="of"] [tag!="V.*|IN"]{0,5} 1:"N.*" []{0,3}
[lemma="range"] [word="from"] [(tag!="V.*|IN.*|CD")|word="to"]{0,7} 2:"N.*"

#4 HYPER types?, ranging from HYPO to HYPO

1:"N.*"
[lemma="type|kind|example|group|class|sort|category|family|species|subtype|subfamily|subgroup|subclass|subcategory|subspecies"]? ",|\("? [word="ranging"] [word="from"]
[(tag!="V.*|IN.*|CD")|word="to"]{0,7} 2:[tag="N.*"]

#5 HYPER types include HYPO

1:"N.*"
[lemma="type|kind|example|group|class|sort|category|family|species|subtype|subfamily|subgroup|subclass|subcategory|subspecies"] ",|\("? [word="which"]? "MD"*
[lemma="include"] [tag!="V.*|CD"]* 2:"N.*"

#6 HYPER such as HYPO

1:"N.*" [tag!="V.*"]* [word="such"] [word="as"] [tag!="V.*"]* 2:"N.*"

#7 HYPER including HYPO

1:"N.*" [tag!="V.*"]{0,5} [word="including"] [tag!="V.*"]* 2:"N.*"

#8 HYPER, especially HYPO

1:"N.*" [word=",|\("]
[word="especially|primarily|namely|usually|typically|characteristically|generally|mainly"]
[tag!="V.*|IN"]* 2:"N.*"

#9 HYPO and other HYPER

2:"N.*" [tag!="V.*"]{0,7} [word="and|or"] [word="other"] "RB.*"* "JJ.*"*
([lemma="type|kind|example|group|class|sort|category|family|species|subtype|subfamily|
subgroup|subclass|subcategory|subspecies"] [word="of"])? [tag!="V.*"]{0,5} 1:[tag="N.*"]

#10 HYPO is defined/classified as HYPER

2:"N.*" [tag!="V.*"]{0,5} "MD"? [lemma="be|,|\("] [word!="not"]?
[word="defined|classified|categori.ed|regarded"] [word="as"] "DT.*|RB.*|JJ.*"*
([lemma="type|kind|example|group|class|sort|category|family|species|subtype|subfamily|
subgroup|subclass|subcategory|subspecies"] [word="of"])? [tag!="V.*"]{0,2} 1:[tag="N.*" &
lemma!="type|kind|example|group|class|sort|category|family|species|subtype|subfamily|s
ubgroup|subclass|subcategory|subspecies"]

#11 x classify/regard/categorize HYPO as HYPER

[lemma="classify|regard|categori.e"]
[tag!="IN"](("DT"|[word="some|several|any|various|distinct|different"]) [tag!="V.*"]*
[lemma="type|kind|example|group|class|sort|category|family|species|subtype|subfamily|s
ubgroup|subclass|subcategory|subspecies"] [word="of"])? [tag!="V.*"]* 2:"N.*" [word="as"]
[tag!="V.*|IN"]* 1:"N.*"

#12 HYPER classified in (x types of) HYPO

1:"N.*" ",|\("? [tag="IN/that|WDT"]? "MD"* [lemma="be|,|\("] "RB.*"*
[word="classified|categori.ed"] ([word="by"] [tag!="V.*"]*)? [word="in|into"] [tag!="V.*"]*
[lemma="type|kind|example|group|class|sort|category|family|species|subtype|subfamily|s
ubgroup|subclass|subcategory|subspecies"]? [tag!="V.*"]* 2:[tag="N.*" &
lemma!="type|kind|example|group|class|sort|category|family|species|subtype|subfamily|s
ubgroup|subclass|subcategory|subspecies"]

#13 HYPER divided into (x) categories (:|of) HYPO

1:"N.*" ",|\("? [tag="IN/that|WDT"]? [lemma="be|,|\("] [word="divided"] [tag!="V.*"]*
[word="in|into"] [tag!="V.*"]*
[lemma="type|kind|example|group|class|sort|category|family|species|subtype|subfamily|s
ubgroup|subclass|subcategory|subspecies"] [tag!="V.*"]* 2:[tag="N.*" &
lemma!="type|kind|example|group|class|sort|category|family|species|subtype|subfamily|s
ubgroup|subclass|subcategory|subspecies"]

#14 type of HYPER is|,|(known/referred/termed/called (to) (as) HYPO

[lemma="type|kind|example|group|class|sort|category|family|species|subtype|subfamily|subgroup|subclass|subcategory|subspecies"] [word="of"] 1:"N.*" ",|\("?
[tag="IN/that|WDT"]? [lemma="be|,|\("]? "RB.*"*
[word="known|referred|termed|named|called"] [word="to"]? [word="as"]? [tag!="V.*"]*
2:"N.*"

#15 HYPO is a HYPER that

2:"N.*" [tag!="V.*"]{0,4} [lemma="be"] "DT.*" "RB.*"* "JJ.*"* 1:"N.*" [tag="IN/that|WDT"]

#16 define HYPO as a HYPER

[lemma="define"] "DT.*"? [word="and"]? [tag!="V.*|IN"]{0,3} 2:"N.*" [word="as"] "DT.*"?
[lemma="type|kind|example|group|class|sort|category|family|species|subtype|subfamily|subgroup|subclass|subcategory|subspecies"]? [word="of"]? [tag!="V.*"]{0,2} 1:[tag="N.*" &
lemma!="type|kind|example|group|class|sort|category|family|species|subtype|subfamily|subgroup|subclass|subcategory|subspecies"]

#17 HYPO refers to HYPER

2:"N.*" [tag!="V.*"]{0,4} [lemma="refer"] [word="to"] "DT.*"?
[lemma="type|kind|example|group|class|sort|category|family|species|subtype|subfamily|subgroup|subclass|subcategory|subspecies"]? [word="of"]? [tag!="V.*"]{0,3} 1:[tag="N.*" &
lemma!="type|kind|example|group|class|sort|category|family|species|subtype|subfamily|subgroup|subclass|subcategory|subspecies"]

#18 X type of HYPER: HYPO

("DT"|"CD"|[word="some|several|any|various|distinct|different"]) []{0,2}
[lemma="type|kind|example|group|class|sort|category|family|species|subtype|subfamily|subgroup|subclass|subcategory|subspecies"] [word="of"] 1:"N.*" [word=":"] [tag!="V.*"]*
2:"N.*"

*DUAL

="%w" has part.../"%w" is part of...

#1 WHOLE composed of PART

1:"N.*" [tag!="V.*"]{0,7} ([tag="IN/that|WDT"] [tag="V.*"])? [tag!="V.*"]{0,7} [lemma="be"]? "RB.*"* [word="comprised|composed|constituted"] "RB.*"* ([word="in"] [tag="JJ.*"]? [lemma="part"])? [word="of|by"] [tag!="V.*"]{0,7} 2:"N.*"

#2 WHOLE comprises PART

1:"N.*"
[lemma="type|kind|example|group|class|sort|category|family|species|subtype|subfamily|subgroup|subclass|subcategory|subspecies"]? ",|\("? [tag="IN/that|WDT"]? [word=",|\("]?
"RB.*"* [lemma="comprise" & tag!="V.*"] [tag!="V.*"]* 2:[tag="N.*" &
lemma!="part|component|element|fraction|constituent|piece|portion|percent|percentage|region|area|zone|section|segment|fragment|content|concentration|volume|load|amount|mixture|composition|level"]

#3 PART composes WHOLE

2:"N.*" [tag!="V.*"]{0,7} ([tag="IN/that|WDT"] [tag="V.*"])? [tag!="V.*"]{0,10}
[lemma="compose" & tag!="VVN"] [tag!="V.*"]{0,7} 1:[tag="N.*" &
lemma!="part|component|element|fraction|constituent|piece|portion|percent|percentage|region|area|zone|section|segment|fragment|content|concentration|volume|load|amount|mixture|composition|level|threat"]

#4 PART is/constitutes part/element of WHOLE

2:"N.*" [tag!="V.*"]{0,5} ([tag="IN/that|WDT"] [tag="V.*"])?
[tag!="V.*"]{0,5}[lemma="be|constitute"] [tag="DT|JJ.*|RB.*|IN|," &
word!="in|on|at|though|but|over|with"]*
[lemma="part|component|element|fraction|constituent|piece|portion|percent|percentage|section|segment|fragment|content|volume|load|mixture|composition|level|proportion|threat"] [word="of"] [tag!="V.*"]{0,7} 1:"N.*"

#5 WHOLE has/includes x part :/such as/namely PART

1:"N.*" [tag!="V.*"]{0,5} ([tag="IN/that|WDT"] [tag="V.*"])? [tag!="V.*"]{0,5}
[lemma="have|include|possess"] [tag!="V.*"]{0,5}
[lemma="element|part|component|constituent|piece|portion|section"] ",|\("? ([tag=":"] |
[word="such"] [word="as"] |
[word="especially|primarily|namely|usually|typically|characteristically|generally|mainly"])
[tag!="V.*"]{0,7} 2:"N.*"

#6 WHOLE has/includes a x fraction of PART

1:"N.*" [tag!="V.*"]{0,5} ([tag="IN/that|WDT"] [tag="V.*"])? [tag!="V.*"]{0,5}
[lemma="have|include|possess"] [tag!="V.*"]{0,5}
[lemma="fraction|percentage|percent|portion|amount|fragment|content|concentration|vo
lume|load|mixture|composition|proportion"] [word="of"] [tag!="V.*"]{0,5} 2:[tag="N.*" &
lemma!="fraction|percentage|percent|portion|amount|fragment|content|concentration|vo
lume|load|mixture|composition|proportion"]

#7 WHOLE part such as PART

1:"N.*"
[lemma="element|part|component|constituent|piece|portion|section|fragment|content"]
",|\("? [word="such"] [word="as"] [tag!="V.*"]{0,7} 2:"N.*"

#8 part of the WHOLE :/such as/namely PART

[lemma="element|part|component|constituent|piece|portion|section|fragment|content"]
[word="of"] [tag!="V.*"]{0,5} 1:"N.*" [tag!="V.*"]{0,5} ",|\("? ([tag=":"] | [word="such"]
[word="as"] |
[word="especially|primarily|namely|usually|typically|characteristically|generally|mainly"])
[tag!="V.*"]{0,7} 2:"N.*"

#9 a part of the WHOLE is PART

("DT"|"CD"|[word="some|several|any|various|distinct|different"]) "RB.*"* "JJ.*"*
[lemma="element|part|component|constituent|piece|portion|section|fragment"][word="of
"] [tag!="V.*"]{0,5} 1:"N.*" [tag!="V.*"]{0,5} [lemma="be"] [tag!="V.*"]{0,7} 2:"N.*"

#10 (that) part of the WHOLE is called PART

("DT"|"CD"|[word="some|several|any|various|distinct|different"]) "RB.*"* "JJ.*"*
[lemma="element|part|component|constituent|piece|portion|section|fragment|segment"][
word="of"] [tag!="V.*"]{0,5} 1:"N.*" [tag!="V.*"]* [lemma="be"] "RB.*"*
[word="called|termed|known|named|referred"] [word="to"]? [word="as"]?
([tag="DT|RB.*|JJ.*|N.*"]|[word="or|,|\(|\)"])* 2:"N.*"

#11 PART, (a) component of WHOLE

2:"N.*" ",|\(" "DT"? "RB.*"* "JJ.*"*
[lemma="element|part|component|constituent|piece|portion|section|fragment|content|se
gment"] [word="of"] ([tag="DT|RB.*|JJ.*|N.*"]|[word=",|and|or"])* 1:"N.*"

#12 WHOLE (which) is divided into x parts: PART

1:"N.*" [tag!="V.*"]{0,5} ([tag="IN/that|WDT"] [tag="V.*"])? [tag!="V.*"]{0,5} [lemma="be"]
"RB.*"* [word="divided"] [word="into|in"] "CD|DT"? "RB.*"* "JJ.*"*
[lemma="element|part|component|constituent|piece|portion|section|fragment|content|se
gment"] ",|\("? ([tag=":"] | [word="such"] [word="as"] |
[word="especially|primarily|namely|usually|typically|characteristically|generally|mainly"])
[tag!="V.*"]* 2:"N.*"

#13 WHOLE is divided into x PART

1:[tag="N.*" &
lemma!="type|kind|example|group|class|sort|category|family|species|subtype|subfamily|s
ubgroup|subclass|subcategory|subspecies"] ",|\("? [tag="IN/that|WDT"]? [lemma="be|,|\("]
"RB.*" [word="divided"] [word="in|into"] [tag!="V.*|IN" &
lemma!="type|kind|example|group|class|sort|category|family|species|subtype|subfamily|s
ubgroup|subclass|subcategory|subspecies"]* 2:[tag="N.*" &
lemma!="type|kind|example|group|class|sort|category|family|species|subtype|subfamily|s
ubgroup|subclass|subcategory|subspecies"]

#MATERIAL

#14 WHOLE made/formed/built of MATERIAL

1:"N.*" ",|\("? [tag="IN/that|WDT"]? [lemma="be|,|\("]? "RB.*"*
[word="made|built|constructed|formed"] [word="up"]? [word="of|from|with"] [tag!="V.*"]*
2:[tag="N.*"]

#15 WHOLE contains MATERIAL

1:"N.*" [tag!="V.*"]{0,5} ([tag="IN/that|WDT"] [tag="V.*"])? [tag!="V.*"]{0,5}
[lemma="contain" & tag!="VVN"] [tag!="V.*"]{0,7} 2:[tag="N.*" &
lemma!="part|component|element|fraction|constituent|piece|portion|percent|percentage
|region|area|zone|section|segment|fragment|content|concentration|volume|load|amount
|mixture|composition|level"]

#16 MATERIAL contained in WHOLE

2:"N.*" [tag!="V.*"]{0,5} ([tag="IN/that|WDT"] [tag="V.*"])? [tag!="V.*"]{0,5} [lemma="be"]?
[word="contained"] "RB.*" [word="in"] [tag!="V.*"]* 1:"N.*"

#17 WHOLE consists of MATERIAL

1:"N.*" [tag!="V.*"]{0,5} ([tag="IN/that|WDT"] [tag="V.*"])? [tag!="V.*"]{0,5}
[lemma="consist"] "RB.*"* [word="of"] [tag!="V.*"]* 2:"N.*"

#18 WHOLE has a x fraction/percent of MATERIAL

1:"N.*" ",|\("? ([tag="IN/that|WDT"] [tag="V.*"])? [tag!="V.*"]{0,5}
[lemma="have|include|possess|contain"] "DT" [tag!="V.*"]{0,5}
[lemma="fraction|percent|piece|portion|mixture|concentration|composition|content"]
[word="of"] [tag!="V.*"]{0,7} 2:"N.*"

*DUAL

="%w" is located at.../"%w" is the location of...

#1 ENTITY connected to PLACE

1:"N.*" [tag!="V.*"]{0,5} ([tag="IN/that|WDT"] [tag="V.*"])? [tag="V.*"]{0,5} [lemma="be"]? "RB.*"* ([word="connected"] [word="to"] | [word="delimited"] [word="by"]) [tag!="V.*"]* 2:"N.*"

#2 ENTITY found in PLACE

1:"N.*" [tag!="V.*"]{0,5} ([tag="IN/that|WDT"] [tag="V.*"])? [tag="V.*"]{0,5} [lemma="be"]? "RB.*"* [word="found|built|placed|piled|stacked|mounted|located"] [word="near|in|along|on|by|next|over|at|into|onto|under"] [word="to"]? [tag!="V.*"]* 2:"N.*"

#3 ENTITY is formed/forms in LOCATION

1:"N.*" ",|\("? [tag="IN/that|WDT"]? [lemma="be|,|\("]? "RB.*" [lemma="form"] [word="over|on|in|off|near|along|next|under|onto|into|at"] [word="to"]? [tag!="V.*"]* 2:[tag="N.*"]

#4 ENTITY extends out into PLACE

1:"N.*" [tag!="V.*"]{0,5} ([tag="IN/that|WDT"] [tag="V.*"])? [tag="V.*"]{0,5} [lemma="be"]? "RB.*"* [lemma="extend"][word="out"]? [word="into|parallel|perpendicular"] [word="of|to"]? [tag!="V.*"]* 2:"N.*"

*DUAL

="%w" is the cause of.../"%w" caused by...

#1 CAUSE responsible for EFFECT

1:"N.*" [tag!="V.*"]{0,7}[lemma="be|,|\("]? [tag="RB.*" & word!="rarely|never|hardly"]* [word="responsible"] [word="for"] [tag!="V.*"]{0,5} 2:"N.*|V.*"

#2 CAUSE causes EFFECT

1:"N.*" [tag!="V.*"]{0,7}
[lemma="cause|produce|generate|provoke|induce|trigger|originate" & tag!="VVN"]
[tag!="V.*|IN"]{0,7} 2:"N.*" [word!="to"]

#3 CAUSE leads to EFFECT

1:"N.*" [tag!="V.*"]{0,7} ([lemma="lead|contribute"] | [lemma="give"] [lemma="rise"])
[word="to"] [tag!="V.*|IN"]{0,7} 2:"N.*|V.*"

#4 CAUSE-driven EFFECT

1:[tag="N.*" & word=".*driven|.*induced|.*caused"] 2:"N.*"

#5 EFFECT caused by CAUSE

2:"N.*" [tag!="V.*"]{0,7} [lemma="be|,|\("]? "RB.*"*
[word="caused|produced|generated|provoked|induced|triggered|originated"] "RB.*"*
([word="by"]|[word="because"][word="of"] | [word="due"] [word="to"]) [tag!="V.*"]{0,7}
1:"N.*"

#6 EFFECT results from CAUSE
2:"N.*"[]{0,5} [tag!="V.*"]{0,7} [lemma="derive|result"] [word="from"] [tag!="V.*"]{0,7}
1:"N.*"

#7 the cause of EFFECT is CAUSE

[lemma="cause" & tag="N.*"] [word="of"] 2:"N.*" [tag!="V.*"]{0,3} [lemma="be"]
[tag!="V.*"]{0,7} 1:"N.*"

#8 CAUSE is the (main) cause of EFFECT

1:"N.*" [tag!="V.*"]{0,7} [lemma="be"] [tag!="V.*"]{0,7} [lemma="cause" & tag="N.*"]
[word="of"] 2:"N.*"

#9 CAUSE, the (main) cause of EFFECT

1:"N.*" ",|\(" [tag!="V.*"]{0,7} [lemma="cause" & tag="N.*"] [word="of"] 2:"N.*"

#10 EFFECT is formed/forms by/from CAUSE

2:"N.*" ",|\("? [tag="IN/that|WDT"]? [lemma="be|,|\("] "RB.*" [lemma="form"] [word="by|from"] [tag!="V.*"]* 1:[tag="N.*"]

*DUAL

="%w" has function.../"%w" is the function of...

#1 INSTRUMENT has/provide/play/assume the function/role/purpose of FUNCTION

1:"N.*" [tag!="V.*"]{0,7} "MD.*"? [tag="RB.*" & word!="not"]? [lemma="have|provide|play|assume|fulfill|serve|take|perform"] "DT.*|JJ.*|RB.*"* [lemma="function|role|purpose"] [word="of"] "DT.*|JJ.*|RB.*"* [tag!="W.*"]{0,7} 2:"N.*|V.*"

#2 INSTRUMENT is built/designed for FUNCTION

1:"N.*" [tag!="V.*"]{0,7} ",|\("? [tag="IN/that|WDT"]? "MD.*"? [tag="RB.*" & word!="not"]? [lemma="be|,|\("] [tag="RB.*" & word!="not"]* [word="built|designed|needed|required|selected|employed|devised|developed|known|well-known|adequate|necessary"] [word="for|to"] [tag!="W.*"]{0,7} "DT.*|JJ.*|RB.*"* 2:"N.*|V.*"

#3 INSTRUMENT is essential/useful/appropiate/critical/effective for FUNCTION

1:"N.*" [tag!="V.*"]{0,7} ",|\("? [tag="IN/that|WDT"]? "MD.*"? [tag="RB.*" & word!="not"]? [lemma="be|,|\("]? [tag="RB.*" & word!="not"]* [word="essential|useful|appropiate|critical|effective"] [word="for|to"] "DT.*|JJ.*|RB.*"* [tag!="W.*"]{0,7} 2:"N.*|V.*"

#4 INSTRUMENT is a X (that is) designed for/to FUNCTION

1:"N.*" [tag!="V.*"]{0,7} [lemma="be"] [tag="RB.*" & word!="not"]? "DT.*"? "N.*"
[word="that"]? "MD.*"? [tag="RB.*" & word!="not"]? [lemma="be"]? [tag="RB.*" &
word!="not"]*
[word="built|designed|needed|required|selected|devised|developed|necessary"]
[word="for|to"] "DT.*|JJ.*|RB.*"* [tag!="W.*"]{0,7} 2:"N.*|V.*"

#5 INSTRUMENT is a X (that is) used for FUNCTION(verb/noun)

1:"N.*" [tag!="V.*"]{0,7} [lemma="be"] "DT.*"? [tag="N.*" & lemma!="name|term|word"]
[word="that"]? "MD.*"? [tag="RB.*" & word!="not"]? [lemma="be"]? [tag="RB.*" &
word!="not"]* [word="used|reused|employed"] [word="for|as"] [tag!="W.*"]{0,7}
2:"N.*|V.*"

#6 INSTRUMENT is used for FUNCTION

1:"N.*" [tag!="V.*"]{0,7} ",|\("? [tag="IN/that|WDT"]? "MD.*"? [tag="RB.*" & word!="not"]?
[lemma="be|,|\("] [tag="RB.*" & word!="not"]* [word="reused|used|employed"]
[word="for|as"] "DT.*|JJ.*|RB.*"* [tag!="W.*"]{0,7} 2:[tag="N.*|V.*" & lemma!="purpose"]

#7 Use #INSTRUMENT for/to FUNCTION

[lemma="use|reuse|build|design|need|require|select|devise|develop|employ" & tag="V.*"]
"DT.*|JJ.*|RB.*"* 1:"N.*" [tag!="V.*"]{0,7} [word="for|to|as"] "DT.*|JJ.*|RB.*"*
[tag!="W.*"]{0,7} 2:"N.*|V.*"

#8 The function/role/purpose of INSTRUMENT is FUNCTION

[lemma="function|role|purpose"] [word="of"] "DT.*|JJ.*|RB.*"* 1:"N.*" [tag!="V.*"]{0,7}
"MD.*"? [tag="RB.*" & word!="not"]? [lemma="be"] "DT.*|JJ.*|RB.*"* [tag!="V.*"]{0,7}
2:"N.*"

[lemma="function|role|purpose"] [word="of"] "DT.*"* 1:"N.*" [tag!="V.*"]{0,7} "MD.*"?
[tag="RB.*" & word!="not"]? [lemma="be"] "RB.*"* [word="to"] [tag="RB.*" & word!="not"]*
[tag!="W.*"]{0,7} 2:"V.*"