

APPENDIX

## APPENDIX I

### List of Condensed NP's in The LOB Corpus with their Elaboration

#### I NP's Beginning with Adjective: 3 Premodifiers

##### i) Adj+Adj+Adj+N(Head):

1. dark yellowish brown sand (= sand of dark brown yellowish colour)
2. strong naturally-characteristic individual variations (= individual variations which are strongly and naturally characteristic)
3. the steady westward cretaceous overstep (= the overstep which is formed during cretaceous time and is steady westward [direction])
4. certain basic automatic controls (= certain controls which are basic and automatic)
5. fine inert solid particles (= particles which are fine grained and solid (state) and also inert)

##### ii) Adj+Adj+N+N(Head):

1. a sudden small concentration change (= a change in concentration which is small (magnitude) and sudden)
2. a small manual coffee grinder (= a coffee grinder which is small and is operated manually)
3. the compact protective oxide layer (= the compact layer of oxide substance given as a protective coating)
4. an appropriate equivalent water thickness (= an appropriate thickness of equivalent water)
5. the ordinary elastic torsion-flection equation (= the equation of elastic torsion-flection which is ordinary)
6. conventional electrical power units (= electrical units of power which are conventional [generate power by using coal, water or oil])
7. the small special purpose computer (= the computer used for specific applications and whose memory is small)
8. the higher molecular weight hydrocarbons (= the hydrocarbons with molecular weight which is high)

##### iii) Adj+Adj+ING participle+N(Head):

1. low-to-medium steady operating pressures (= the pressures which are applied from low level to medium level and operated for repeated number of times)

##### iv) Adj+Adj+EN participle+N(Head):

1. typical polycrystalline pressed samples (= typical samples of polycrystalline material which is pressed)

v) Adj+Adv+ING participle+N(Head):

1. several fast baking cycles (= several cycles of baking done at a fast rate)

vi) Adj+Adv+EN participle+N(Head):

1. the rare horizontally bedded rocks (= the rocks which are horizontally deposited and which are rare)

vii) Adj+N+N+N(Head):

1. standard gamma scintillation equipment (= an equipment which is regularly used or conventionally or specific used for measurement of gamma rays by detecting scintillation)
2. high base status soils (= soils which have a quality of high base material)
3. dilute sodium carbonate solution (= solution containing small amount of carbonate of sodium)
4. its full design test pressure (= its test pressure which agrees with the expected design value)
5. a compact oxide surface layer (= a layer on the surface with compact oxide)
6. a stainless steel guide tube (= a tube made of stainless steel which is used for pushing [wire])
7. the normal sodium extrusion mechanism (= the mechanism of extrusion of normal sodium)
8. many blood group systems (= many systems of blood group)
9. lower blood sugar curves (= curves of sugar in blood whose level is low)
10. abnormal glucose tolerance curves (= curves of tolerance for glucose which are abnormal)
11. serial glucose tolerance tests (= tests to determine tolerance for glucose which are in series)
12. normal glucose tolerance tests (= tests in which tolerance for glucose is normal)
13. sub-normal blood sugar level (= level of sugar in blood which is sub-normal)
14. the front rotor spindle housing (= the spindle housing which is present on the front side of a rotor)

viii) Adj+N+Adj+N(Head):

1. both grey-brown podzolic soils (= both soils of podzolic type which are of grey-brown colour)
2. typical grey-brown podzolic soils (= typical soils of podzolic [type] which are of grey-brown colour)
3. large scale steady operation (= an operation which is functionally steady over repeated number of times of an application)

ix) Adj+N+Specif+N(Head):

1. other copepod *Rhicalanus gigas* (= *Rhicalanus gigas* with other copepods)

x) Adj+N+ING participle+N(Head):

1. a stainless steel supporting block (= a block made of stainless steel that supports [something])
2. the true torsion-flexure buckling curve (= the buckling curve due to torsion-flexure which is actual [true])

xi) Adj+ING participle+Adj+N(Head):

1. a close fitting cylindrical block (= a block which is cylindrical in shape and which fits closely [into another cylinder])

xii) Adj+EN participle+Adj+N(Head):

1. a thick cemented black horizon (= a horizon which is black and thickly cemented)
2. severe right-sided abdominal pain (= the pain in the right side of abdomen which is severe)
3. a large infected cystic haematoma (= a haematoma which is large, inflected and cystic)
4. a close packed cubic array (= an array containing a cubic (framework) which is also closely packed system)

xiii) Adj+EN participle+N+N(Head):

1. numerous bleached sand grains (= numerous grains of sand which are bleached)
2. maximum resolved shear stress (= stress [on plane] which is shear and resolved)

xiv) Adj+EN participle+ING participle+N(Head):

1. inert gas-shielded welding methods (= welding methods using inert gas for shielding)
2. large gas welding cooking pans (= large pans of cooking that are made by gas-welding)

xv) Adj+Specif+ING participle+N(Head):

1. lower Chilmark building stones (= building stones of lower Chilmark)

xvi) Adj+Num+N+N(Head):

1. a true zero wind speed (= a wind speed which is at true zero)

## II NP's Beginning with Adverb: 3 Premodifiers

i) Adv+Adv+Adj+N(Head):

1. much too high pressure (= a pressure which is abnormal)
2. our mathematically more knowledgeable readers (= our readers who are mathematically more knowledgeable)

ii) Adv+Adv+EN participle+N(Head):

1. a more deeply leached profile (= a profile which is more deeply leached)

iii) Adv+Adj+Adj+N(Head):

1. very high thermal efficiencies (= thermal efficiencies which are very high)
2. very little practical value (= a practical value which is very little)

iv) Adv+Adj+N+N(Head):

1. the more insoluble lead sulphate (= the sulphate of lead which is more insoluble)
2. the most useful resistance values (= the resistance values which are most useful)
3. the most successful high-resistance films (= the films which have high-resistance and which sustain for a very large and long period)
4. the very high mortality rate (= the rate of mortality which is very high)
5. the most stable cation distribution (= the distribution of cation which is most stable)
6. a slightly lower ignition probability (= a probability of ignition which is slightly lower)
7. a more appropriate transformation matrix (= a matrix obtained on transformation which is more appropriate)

v) Adv+Adj+ING participle+N(Head):

1. too long looking backwards (= looking backwards which are too long)

vi) Adv+EN participle+N+N(Head):

1. a finely ground glass surface (= a surface of glass which is finely ground)

vii) Adv+EN participle+ING participle+N(Head):

1. more sophisticated scattering experiments (= the scattering experiments which are more sophisticated [in measuring smaller angles]).

### III NP's Beginning with Noun: 3 Premodifiers

i) N+N+N+N(Head):

1. a routine antibody detection method (= a routine method for detecting antibody)

2. cortisone glucose tolerance tests (= tests for determining tolerance for glucose after administration of cortisone)
3. aluminium-magnesium silicon alloy pipe (= a pipe made of an alloy of aluminium-magnesium silicon)
4. liquid oxygen trace impurities (= oxygen (in a liquid) present in small amount as impurity)

ii) N+N+ING participle+N(Head):

1. a knife edge cutting head (= a cutting head which has a sharpness like the edge of a knife)
2. the plastic torsion-flexure buckling curve (= the buckling curve due to torsion-flexure in plastic condition)
3. Gas engine cooling systems (= cooling systems for an engine running on gas)

iii) N+N+Specif+N(Head):

1. parent material Barton sand (= a sand of Barton [village/town] which is parent material)

iv) N+Adj+Adj+N(Head):

1. the cockroach central nervous system (= the central nervous system of a cockroach)

IV NP's Beginning with Number: 3 Premodifiers

i) Num+Adj+Adj+N(Head):

1. the first few atomic layers (= the first few layers which are measured in units of atomic size)

ii) Num+Adj+N+N(head):

1. three separate heat exchangers (= three separate exchangers which are used in transforming heat)
2. the third high pressure stream (= the pressure of stream which is measured at a high third stage)

iii) Num+Adv+EN participle+N(Head):

1. thirty-three previously diagnosed cases (= thirty-three cases which were previously diagnosed)
2. thirty-three previously diagnosed diabetes (= the thirty-three diabetes which were previously diagnosed)

iv) Num+N+N+N(Head):

1. two metal-metal oxide electrodes (= an electrode system consisting of metal and oxide of metal)
2. ten water vapour molecules (= ten molecules of vapour of water)

v) Num+ING participle+ING participle+N(Head):

1. two sloughing discharging areas (= two areas which are discharging and sloughing)

V NP's Beginning with Specifier: 3 Premodifiers .

i) Specif+N+N+N(Head):

1. the ABO blood group system (= the system of blood which has ABO group)

VI NP's Beginning with Present Participle: 3 Premodifiers

i) ING participle+N+N+N(Head):

1. the resulting total surface areas (= the total surface areas which are made out of composition of small units for each surface)

ii) ING participle+Num+Adj+N(Head):

1. the remaining three hyperbolic functions (= the three remaining functions which yield hyperbolas)

VII NP's Beginning with Past Participle: 3 Premodifiers

i) EN participle+N+N+N(Head):

1. the podzolised sol brun acid (= the acid of brun [colour] of sol [soil] of podzolic type)
2. a marked pine needle litter (= a litter of pine needle which is marked)

ii) EN participle+EN participle+N+N(Head):

1. the isolated ligatured nerve cords (= the nerve cords which are ligatured and isolated)

iii) EN participle+Specif+N+N(Head):

1. a water-cooled O ring seal G (= G indicates a seal consisting of O ring which is cooled by water)

I NP's Beginning with Adjective: 4 Premodifiers

i) Adj+Adj+Adj+N+N(Head):

1. a hot dilute acetic acid solution (= a solution of acetic acid which is hot and dilute)

ii) Adj+Adj+Specif+ING participle+N(Head):

1. the oolitic upper Chilmark building stones (= the building stones of upper Chilmark which are made of small spheres [oolitic])

iii) Adj+N+N+N+N(Head):

1. the stationary state wave function psi (= the wave function psi which describes a stationary state)

iv) Adj+N+N+Adj+N(Head):

1. solid oxide electrolyte galvanic cells (= galvanic cells containing electrolyte which is in an oxide and also in solid state)

v) Adj+N+Adj+Adj+N(Head):

1. a general purpose electronic digital computer (= an electronic digital computer which can be used for general purposes and not for any one particular purpose)

vi) Adj+EN participle+N+Adj+N(Head):

1. some isolated abdominal nerve cords (= some nerve cords isolated in abdomen)

vii) Adj+EN participle+N+Adj+N(Head):

1. a hot trapped sodium coolant circuit (= a circuit which functions as a coolant using sodium which forms a hot closed system)

## II NP's Beginning with Adverb: 4 Premodifiers

i) Adv+Adj+Adj+Adj+N(Head):

1. a much less eccentric elliptical orbit (= an elliptic orbit which has much less eccentricity)
2. the relatively massive terminal abdominal ganglion (= the terminal abdominal ganglion which is relatively massive)

ii) Adv+Adj+Adj+N+N(Head):

1. an appreciably lower tensible proof strength (= a tensible proof strength which is appreciably lower)

iii) Adv+Adj+N+N+N(Head):

1. relatively low interstage pressure ratios (= pressure ratios between interstages which is relatively low)

iv) Adv+EN participle+Adj+Adj+N(Head):



1. the more sophisticated optical electronic instruments (= the electronic instruments which are used in optics and are more sophisticated)

III NP's Beginning with Noun: 4 Premodifiers

i) N+N+N+N+N(Head):

1. a solid acetylene/liquid oxygen mixture (= a mixture consisting of acetylene in solid state and oxygen in liquid state)

IV NP's Beginning with Number: 4 Premodifiers

i) Num+N+N+N+N(Head):

1. a two stream gas-gas heat exchanger (= an exhcanger which employs two gases to transfer heat)

ii) Num+Num+Adj+N+N(Head):

1. the first one-inch geological survey maps (= the first survey maps of geology having one-inch scale)

V NP's Beginning with Specifier: 4 Premodifiers

i) Specif+Adj+N+N+N(Head):

1. the British scientific instrument research association (= the British research association of scientific instruments)

VI NP's Beginning with Past Participle: 4 Premodifiers

i) EN participle+Adj+ING participle+Adj+N(Head):

1. inhibited red fuming nitric acid (= nitric acid which is fuming and is of red colour and which is inhibited)

I NP's Beginning with Adjective: 5 Premodifiers

i) Adj+Adj+Adj+Adj+Adj+N(Head):

1. very weak fine sub-angular blocky structures (= structures which are blocky, sub-angular, weak and very fine)

ii) Adj+EN participle+Phr.Prem+Adj+N+N(Head):

1. a thin walled closed off round end tube (= a tube which is thin walled and which is closed at a rounded end)

II NP's Beginning with Adverb: 5 Premodifiers

i) Adv+Adj+N+Adj+N+N(Head):

1. highly siliceous base poor parent materials (= parent materials which are highly poor, base and siliceous)

III NP's Beginning with Number: 5 Premodifiers

i) Num+Specif+Adj+Adj+N+N(Head):

1. 2 D negative red cell samples (= two samples of the red cells which are negative)

I NP's Beginning with Noun: 6 Premodifiers

i) N+ING participle+Adj+EN participle+Specif+N+N(Head):

1. a close fitting thin walled T junction F (= F indicates a T shaped junction which is closed fitting and thin walled)

II NP's Beginning with Number: 6 Premodifiers

i) Num+N+N+N+Specif+Adj+N(Head):

1. a 1 inch gauge length Robertson optical extensometer (= an extensometer invented by Robertson, which is used in optics for having a unit of gauge length)