Semantic and Syntactic Aspects of English Affixation:
An Overview of Lieber's Process of Word-formation: Derivation

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Abstract

This paper is an overview of one of Lieber's processes of wordformation; namely, the derivation process. In *Handbook of Word-Formation* **(2005),** he presents three techniques of word-formation: compounding, derivation, and conversion. The current research sheds light on the process of derivation encapsulating both prefixation and suffixation in an attempt to elicit some semantic and syntactic interrelations in the light of the construction grammar which considers morphemes as constructions of form and function. (Goldberg, 2006, p. 5, cited in Römer, 2009, p.147). The interface of structure and meaning is manifested in such constructions; namely morphemes. As suggested by Lieber (2005), for instance, prefixes convey different messages depending on the part of speech they are attached to. For example, some prefixes express a negative meaning when affixed to nouns or adjectives; however when attached to verbs they reflect a reversative sense as it will be shown below. Some assumptions are approved while others are denied. Finally, the results assert the fact that there is a solid association between lexis and grammar.

Keywords: semantic-syntactic interrelations/ insights, word formation, English prefixes and suffixes.

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1. Introduction:

Lieber semantically divides the English prefixes he approached into five categories: first, the negative prefixes; second, the locational prefixes; third, the temporal and aspectual ones; fourth, the quantitative prefixes; and finally, the verbal prefixes. As far as the suffixes are concerned, he categorizes them semantically into four groups as follows: personal suffixes, abstract suffixes, verb-forming suffixes, and finally, adjective-forming suffixes which itself encompasses denominal adjectives and deverbal adjectives (Lieber, 2005, 383-417).

2. Prefixation:

2.1 Negative prefixes:

The first set of prefixes to be investigated is the set of *the negative prefixes (un-, in- (or ir-, il-, and im-), non-, de-, and dis).*

As a start, the prefix *un-* has been argued to have two meanings. A negative one when it is attached to nouns and adjectives, and a reversative one when attached to verbs. Another assumption regarding the un- prefix is that it selects a certain semantic category of verbs to be attached to; that is the class of causative/ inchoative verbs that show an impermanent result, as suggested by (Lieber, 2005, p. 391-393).

The negative meaning; for example, is attainable in adjectives such as: *unaccountable, unambiguous, undisputed, undisturbed, undivided, unquestionable, unquestioned, unquestioning, unofficial,*

unoriginal, undoubted, unarguable, unequivocal, un-American, uncomfortable, uncommitted, uncommon, unnecessary, unbreakable, unfathomable, unfashionable, unfasten, etc. (CALD3). The issue of how gradable adjectives are and its relation to the meaning delivered which is assumed by Lieber appears in some of the previous adjectives which express either contradictory negativity (acute difference) or contrary negatives (opposites) depending on how gradable they are. Therefore, *unaccountable, unambiguous, undisturbed, undivided, unquestionable, unquestioned, unquestioning, unofficial, unaware, unwelcome, uncouth, unbreakable, unfathomable,* and *unfasten* are all to be considered contradictory negatives. On the other hand, *unoriginal, un-American, uncomfortable, uncommon, uncommunicative, unconcerned, unsafe, unfulfilled, unfriendly, unattractive, unwell, unwary, uncool, unnecessary,* and *unfashionable* (CALD3) express contrary negatives as they are gradable adjectives to some extent.

Similarly, there are some instances in which the *un-* prefix leads to the negative meaning in nouns such as: *unbeliever, unfaithfulness, unfriendliness, uncertainty, unpleasantness, unpredictability, unreality*, etc.

Concerning verbs, the *un-* prefix results in reversible meanings when attaches itself to the following causative/inchoative verbs such as: *unbalance, unbend, unbind, unbuckle, unburden, unbutton, unscrew, unseat, unveil, unwind, unwrap, unzip, undo, undelete, uncover, uncork, unnerve*…etc. It is noticeable that the base of each of these verbs causes a change of state as well as the effect of each verb of them all is an impermanent one.

In addition to adjectives, nouns, and verbs, the *un-* prefix attaches also to some adverbs to denote a negative sense. For instance, *unambiguously, uncertainly, unpleasantly, unwillingly, unnaturally, unnecessarily, unconventionally, uncooperatively, unrealistically, unreasonably, unpredictable, etc.* (CALD3).

Second, as suggested by Lieber (2005, p. 391), the prefix *de-* is a privative one that expresses a negative meaning when attaches to

verbs. Verbs start in *de-* tend to be negative causatives. For example, *deactivate, decompose, decontaminate, decontrol, dehumanize, dehydrate, de-ice, delouse, demoralize, deplane, deport, depose, descale, debug, deflate, decommission, demythologize, deform, detoxify, deregulate, devalue, demilitarize, etc.* It; also, denotes the negative sense in nouns such as: *deactivation, decomposition, detoxification, dehydration, decontamination, demoralization, deportation, deformation, detoxification, deregulation,* and *demilitarization* (CALD3).

Third, the *in-* and *non-* prefixes are the same as the *un-* prefix; they express the negative meaning when attached to adjectives and nouns. Also, there are the prefixes *ir-, il-,* and *im-* which denote the negative meaning.

The following adjectives start with *in-* or *(ir-, il-,* or *im-)* prefixes express a negative sense of the base: *inaccessible, inaccurate, inadequate, inappropriate, incapable, incoherent, incompatible, incomplete, inconceivable, inconsistent, incredible, indefinite, indiscreet, inevitable, infinite, inflexible, insecure, insignificant, insubordinate, insufficient, invalid, invariable, invisible,* and *involuntary* (CALD3).

Similarly, *irrational, irregular, irrelevant, irreparable, irresistible, irresponsible, irreversible, illegal, illegible, illiterate, illogical, immature, impatient, imperfect, impossible,* and *imprecise* have negative meanings.

Nouns; also, starting with *in-, ir-, il-,* or *im-* express negativity. For instance, *inaccessibility, inaccuracy, inadequacy, inappropriateness, incapability, incoherence, incompatibility, incompleteness, inconsistency, indiscretion, inevitability, infinity, inflexibility, insecurity, insignificance, insubordination, insufficiency, invalidity, invariability, invisibility, illegibility, illiteracy, immaturity, impatience, imperfection, impossibility, imprecision, irrationality, irregularity, irrelevance,* and *irresponsibility* (CALD3)..

However, it is of great importance to notice that the *in-* prefix is not always used to denote negativity. Sometimes it functions as an intensifier that emphasizes the core meaning of the base. For instance, *invaluable* does not mean (not valuable); however, it means the same as valuable (priceless) with this meaning got more and more intensified by adding the prefix *in-*. *Inflammable* and *flammable* have the same meaning; the in-prefix does not negate the meaning of the base; on the contrary, it intensifies it. The opposite of *inflammable* and *flammable* is *non-flammable*. The same is true for *habitable* and *inhabitable*. Their negative is *uninhabitable*. *Innumerable* means the same as *numberless* (too many to be counted). The prefix *in-* in *incriminate* does not negate the quality of being guilty; however, it assures the meaning that someone is guilty.

The *non-* prefix attaches to adjectives and nouns to express the negative meaning. Some examples are: *non-existent, non-fat, non-fiction, non-flammable, nonintervention, non-judgmental, non-negotiable, non-racist, non-resident, non-returnable, nonsense, non-slip, non-smoker, non-smoking, non-standard, nonstick, non-stop, nonunion, non-verbal, non-violence, non-violent, non-believer, non-bio, non-combatant,* and *noncommittal* (CALD3).

A lexical item can be prefixed by both *un-(or in-) and non-* prefixes. It has been argued that they cause a slight difference in the meaning of the roots or bases to which they are attached. *Non-* is said to select "non-emotive or non- affective" senses while *un-* (or *in-*) targets a more "emotion-laden" senses (Lieber, 2005, p. 392). Applying such an assumption, *non-believer* will mean a mere negation or absence of any beliefs (not a believer) while *unbeliever* will indicate the opposite or reverse of being a believer. Similarly, *non-professional* means not in a profession; someone who is non-professional is not a doctor, an engineer, lawyer…etc. On the other hand, an unprofessional person is someone who does not meet the professional standards of behavior of a profession (Lieber, 2005, p.

392). *Non-Christian* means not Christian while unchristian means against or opposed to Christian virtues and beliefs, as well.

Pragmatically speaking, a *non-believer* tends to be used to describe groups of atheists, agnostics etc., but an *unbeliever* tends more towards describing a pejorative sense used by religious people for describing, either, believers of other religions, or nonbelievers.

Finally the prefix *dis-* indicates a negative or reversible meaning when attached to verbs. When attached to stative verbs, it indicates a negative meaning. However, when it is attached to verbs that implies an impermanent meaning, they have a reversible interpretation (Lieber, 2005, p. 393). Some examples are: *disable, disabuse, disadvantage, disarm, disarrange, dissociate, disassociate, disband, discharge, disclaim, disclose, discolor, discomfit, disconnect, discontinue, discourage, disqualify, disregard, disrobe, disappear, disprove,* and *disapprove* (CALD3).

The verbs *distrust, dishonor, disobey,* and *disinvest* imply a permanent effect and the meaning of the prefix dis- is a negative one; it negates the meaning of the root, the thing that proves the assumption that dis- only indicates reversible interpretations when attached to verbs that have impermanent effects. However, *disallow, discolor, dishonor, disobey,* and *disinvest* are not stative verbs and still they have negative, not reversative, connotations. This contradicts Lieber's above-mentioned claim that only stative verbs joined with *dis-* have negative interpretations. The prefix *dis-* implies a negative meaning in the following stative verbs: *dislike, disagree, distrust,* and *disbelieve* (CALD3).

The prefix *dis-* also attaches to nouns and adjectives, and, in this case, it indicates negation as in: *disabling, disability, disabled, disadvantage, disadvantageous, disobedient, disobedience, disobliging, disorder, disorganized, disorganization, discontinuation, discontinued,* and *disinterested*. (CALD3)

It is worthy of notice that there is a difference in meaning between *distasteful*, *tasteless*, *tasty*, and *tasteful*. *Distasteful* refers

to topics of conversation or tasks that are unpleasant and not interesting; *tasteless* refers to foods that lack flavors, or things which are boring, annoying, or not stylish. *Tasty* describes food that has a strong and very pleasant flavor while *tasteful* describes styles that are very attractive.

Additionally, there are some other prefixes that negate or reverse the meaning of the root or the base; they include: *a/an, anti-, contra-,* and *counter*.

First, the prefixes *a-* and *an-* have a negative effect on the meaning of the roots to which they attach. Some examples are *apolitical, asexual, atheism, atypical, aseptic, amoral, and anonymous* (CALD3).

Second, the prefix *anti-* has a reversible effect on roots or bases as in: *antibiotic, antitoxin, antiviral, anti-depressant, antidote, anti-hero, anti-inflammatory, anti-life, anti-lock, antioxidant, anticoagulant, anticlimax, anticlimactic, and anti-bacterial* (CALD3). It also indicates that something or someone is against or opposed to something else as in: *anti-terrorist, antithesis, antithetical, antitrust, antiwar, antivirus, antidisestablishmentarianism, anti-federalist, antifreeze, antinuclear, anti-consumerist, anti-clockwise, anti-clerical, anti-aircraft,* and *anti-abortion* (CALD3).

Third, the prefix *contra-* means against or opposite to. Some examples are: *contraceptive, contraception, contradict, contradiction,* and *contravene* (CALD3).

Finally, the prefix *counter-* indicates opposition or a reaction against. This meaning is obvious in lexical items such as: *counterargument, counter-culture, counter-intuitive, counter-revolution, counter-revolutionary, counter-suit, counter-attack, counterblast, counterclockwise, counterinsurgency, countermeasure, counteroffensive,* and *counterproductive. Counter-* may also indicate a reversible meaning as in: *counteract,* and *countermand* (CALD3).

2.2 Locational prefixes:

The locational prefixes discussed by Lieber, 2005 (p. 393399) are *over-, under-, out, down, up, off, back-, fore-, by, ante-, circum-, extra-, inter-, sub-, super-,* and *trans-*. They freely attach to different categories such as verbs, nouns, or adjectives as suggested by Lieber (2005, p. 394).

First, *Over-* expresses a multiplicity of meanings including locational, excess, reversible, and reversible/negative interpretations. Some instances deliver senses of power, repetition, or completion (Lieber, 2005, p.394). Examples of locational indications include *overarm, overboard, overhang, overhead, overleaf, overlook, overpass, overseas, overtake, overturn, overflow,* and *overwhelm*. A reversible meaning can be depicted in *overcompensate, overcook, overpower, overreach, overripe, overwrite,* and *overbalance*. The negative/reversible notion is clear in *overdue, overlook, override,* and *oversimplify. Override, overrule, overthrow, overturn,* and *overwhelm* express *power*. *Override* shows a kind of *repetitive* action, also. The idea of *completion* is clear in overalls. The *excess* interpretation is apparent in *overact, overdose, overcharge, overage, overtime, over-excited, overarching, overeat, overbearing, overbid, overweight, overrun,* and *overwork*.

It is noticeable that the prefix *over-* attaches to both transitive and intransitive verbs; however, in its locational sense, it does sometimes change the intransitive to transitive by adding an argument. Consider; for example:

The branches hung heavy with snow (CALD3)

Several large trees overhung the bath (CALD3)

The verb *hang* could be transitive or intransitive; however, when it is attached to the prefix over- , it is a transitive verb that requires adding an argument for the meaning to be clear. Similarly, the verb *look* is an intransitive verb which changes to a transitive one when *over-* is attached. Consider the following examples:

I looked out (of) the window (CALD3).
*I overlooked out (of) the window.
Our hotel room overlooked the harbor (CALD3).
*our hotel room overlooked.
*you have overlooked.
You have overlooked one key fact (CALD3).

Similarly, the verbs *flow* and *overflow* behave differently; *flow* is always an intransitive verb; however, *overflow* can function as both a transitive and an intransitive verb. For example:
Lava from the volcano was flowing down the hillside.
Many short rivers flow into the Pacific Ocean.
The river flows through three countries before flowing into the sea just south of here.
The milk overflowed when I poured it into the jug.
Because of heavy rain, the river may overflow its banks.
Oh no, the bath is overflowing all over the floor.
The pub was so full that people were overflowing into/onto the street.
Suddenly, her anger overflowed.

Similarly, the verb *turn* can be a transitive or an intransitive one. When *over-* is added, the result again is either the transitive version of the verb *overturn* or the intransitive one.
For instance:
The wheels started to turn (round).
Turn the steering wheel as quickly as you can.
She turned the vase over to look for the price.
The car skidded off the road, hit a tree and overturned.
The burglars had overturned all the furniture in the house.

The verb *take* is always a transitive one except when used to mean to *perform well*. However, *Overtake* can be transitive or intransitive. Consider the following examples:
Here's your pen, I took it by mistake.
Take your umbrella when you go out.
Do you take milk in your tea?

These new plants haven't taken - they don't like this dry soil.
[Intransitive]
Always check your rear view mirror before you overtake (another car).
       In its *excess* sense, *over-* attaches to both transitive and
intransitive verbs equally. The resulting verb is of the same kind;
for example,

We slept (Lieber, 2005, 398).
We overslept (Lieber, 2005, 398).
.They developed the area (Lieber, 2005, 398).
       They overdeveloped the area (Lieber, 2005, 398). They
       charged her £45.
They overcharged her £45 (CALD3).
He dosed himself with valium to calm his nerves (CALD3).
She overdosed herself on aspirin and died (CALD3).

       Only the verbs *eat, overeat, power, overpower, stay,* and
overstay do not follow this attitude. The verb *eat* can be either a
transitive or an intransitive one; however, *overeat* cannot be
expressed in the transitive mood. In addition, the verbs *power* and
stay are intransitive while *overpower* and *overstay* are transitive.
Consider the following examples:
They eat.
They eat bananas.
They overeat.
*They overeat bananas.
Three security guards overpowered the gunman (CALD3).
 *Three security guards overpowered.
She powered into the lead and went to win the race (CALD3).
*She powered other competitors.
Stay until the rain has stopped (CALD3).
They decided not to overstay their visa (CALD3).
*They have decided not to overstay.

They have decided not to stay.

Second, the prefix *under-* attaches to various categories of lexical items expressing a locational (lower than), a quantitative (less than), a qualitative (not done as well as necessary), or most interestingly, a negative (not) meaning (Lieber, 2005, 395). The last two senses are suggested by the researcher. Examples of the locational sense of lexical items prefixed by *under-* include: *underarm, underbrush, undergrowth, undercarriage, underpass, undersea, underside,* and *underwater*. The quantitative sense is apparent *in undercharge, underage, undercut, underemployed,* and *underweight*. All of *underachieve, underachiever, underclass, undercook, undercooked, underdeveloped, underdone, understate,* and *undervalue* bear a qualitative interpretation. The prefix *under-* expresses a negative meaning in words such as: *undergrad, undergraduate, undernourished,* and *underwhelmed.*

Third, *Out-* is another locational prefix that along with the locational sense that it adds to lexical items, it bears a number of other interpretations. Non-existence, exclusion, and comparison are some other possible messages (Lieber, 2005, 395). For example, *outback, outbound, outbox, outbuilding, outdoor, outspread, outstretched, outward,* and *outwards* express the locational sense of the prefix *out-*. The idea of non-existence is clear in *outage* and *out-take*. *Outcast, outmoded,* and *outsider* bear a sense of exclusion. The comparative interpretation can be depicted in words such as: *outbid, outclass, outdated, outdistance, outstanding, outstrip, outvote,* and *outweigh*. What is worthy of notice is that the prefix *out-* bears some other interpretations, as has been investigated, such as a reversible, a negative, or a causative one represented in *outlaw, outstanding,* and *outrage,* respectively.

Interestingly, the comparative sense of *out-* is not only restricted to verbs as Lieber suggested; there are the adjectives *outdated, outsize,* and *outstanding* in which *out-* conveys a comparative interpretation. However, the researcher agrees with

Lieber that when *out-*, in its comparative sense, is attached to intransitive verbs, it turns them to transitive ones. Consider the following examples:

We live in London (CALD3).

*We outlive in London.

He outlived all of his brothers (CALD3).

*He lived all of his brothers.

Fourth, the prefixes *up-* and *down-* are said to be having two interpretations (Lieber, 2005, 396); they are a locational one and a quantitative one. In addition, the researcher depicts two extra senses attached to the prefix *up-* and two others attached to the prefix *down-*. They are a qualitative and a temporal meanings for *up-* as well as a qualitative and negative meanings for *down-*.

Examples of the locational sense of *up-* include: *up-country (adj. / adv.), upend (v.), uphill (adj. / adv.), upland (adj. / n.), uplift (v.), upload (v.), upon (prep.), upper (adj.), upright (adj. / adv. / n.), upriver (adj. / adv.), upset (v.), upstage (adj.), upstairs (adv. /adj.), upstate (adj. / adv.), upstream (adj. /adv.), uptown (adv. /adj.), upturned (adj.), upward(adj.), upwards (adv.), and upwind (adv. /adj.).* The quantitative interpretation is apparent in: *upbeat (adj.), upkeep (n.), upshift (v.), upsurge (n.), upswing (n.), uptake (n.),* and *upturn (n.).* Each of *update (v.), upgrade (v.), uplift (n. / v.),* and *upmarket/ upscale (adj.)* expresses a qualitative meaning. The word *upcoming* (adj.) bears a temporal notion.

Similarly, the prefix *down-* has a locational as well as a quantitative meaning. Examples of the locational sense of *down-* are as follows: *downtown (adj. / adv.), downhill (adj. / adv.), download (v.), downstage (adv. / adj.), upturned (adj.), downwards (adv.),* and *downturn (n.).* The negative meaning is represented by the word *downtime* (n.). Finally, the words *downgrade (v.),* and *downplay (v.)* show a qualitative property.

Fifth, the prefix *off-* has three interpretations as Lieber suggested (Lieber, 2005, 396). It indicates one of the following

senses: direction, abnormality, or separation. Seven other interpretations have been found by the researcher; they are as follows: negation, difference, comparison, equality, inclusion, age, and size. Examples of the directional sense are words such as: *off-ramp (n.), offshore (adj. /adv.), offside (adj.), and offstage (adj.).* The abnormality interpretation is clear in words such as: *offbeat (adj.)* and *off-white (adj. / n.). Offline (adj. /adv.), offload (v.),* and *off-sales (n.)* indicate a sense of separation. The negative meaning is apparent in *off-duty (adj.), offhand (adj.), off-limits (adj.),* and *off-peak (adj.).* The notion of difference is depicted in *off-key (adv.)* and *off-message (adv. /adj.). Off-season (n.)* indicates a comparative meaning. The meanings of equality, inclusion, age, and size are represented by the lexical items *offset (v.), offshoot (n.), offspring (n.),* and *off-the-peg (adv.),* respectively.

Sixth, back- as a prefix has three senses as suggested by Lieber (2005, 397). They are locational, temporal, and reversal meanings. A sense of negation has been attained through investigation, as well. It is apparent in lexical items such as: *backdoor (adj.) and backward (adj.).* The locational meaning is represented by the following lexical items: *backcomb (v.), backdrop/ backcloth (n.), background (n.), backhand (n.), backless (adj.), backlit (adj.), backwash (n.),* and *backyard (n.). Back copy/ back issue/ back number (n.), backdate (v.), backlist (n.),* and *back story (n.)* indicate a temporal sense. The reversal meaning is clear in *backfire (v.), backslide (v.),* and *backward (adj.).*

Seventh, the prefix *sub-* has either a locational, subordinate, part of, bordering, or smaller quantity interpretation (Lieber, 2005, 397). Temporal as well as negative notions are depicted by the researcher. The word *subsequent (adj.)* represents the temporal sense while *subdued (adj.), subliminal (adj.),* and *suburban (adj.)* show negative indications. In addition, the word *subcompact (n.)* indicates a notion of size. As for the uses suggested by Liber, the locational sense is clear in: *subarctic (adj.), subcutaneous (adj.), submarine (n. / adj.), submerge (v.), submersible (n.), subside (v.),*

subtropical (adj.), and *subway (adj.).* The subordinate meaning can be elicited from *subaltern (n.), subhuman (adj.), subjugate (v.), subnormal (adj.), subordinate (adj. /n. /v.), subordination (n.), subservient (adj.), subsidiary (adj.),* and *substandard (adj.).* The following lexical items indicate that they are parts of other things; *subatomic (adj.), subcommittee (n.), subconscious (n.), subsidy (n.), subspecies (n.), substation (n.), subsume (v.),* and *subtitle (n.),* for example. The words *suburb (n.)* and *suburbia (n.)* express a bordering sense. Finally, the quantitative use of *sub-* is apparent in: *subdivide (v.), subdue (v.), sublime (adj.), subscription (n.), subside (v.), subsist (v.), subsistence (n.), subsonic (adj.), substantial (adj.), subtext (n.),* and *sub-zero (adj.).*

Eighth, the prefixes *fore-, inter-,* and *ante-* have both a temporal and a locational sense (Lieber, 2005, 397). However, investigation has traced the existence of some other senses.

As far as *fore-* is considered, besides the temporal and the locational meanings, four other senses have been noticed; they are reversal, negative, superlative, and emphasizing meanings. The temporal notion can be illustrated via lexical items such as: *forebear (n.), forecast (n. /v.), foredoomed (adj.), forefathers (n.), foretaste (n.), foretell (v.), forethought (n.),* and *forewarn (v.). Forearm (n.), forecourt (n.), forefinger (n.), forefoot (n.), foreground (n.), forehand (n.), forehead (n.), foreleg (n.), forelock (n.), forename (n.), the foreshore (n.), and foreword (n.)* have locational indications. The lexical items *foreclose (v.), forego (v.), foremost (adj.),* and *foreshorten (v.)* show reversal, negative, superlative, and emphasizing senses, respectively.

Similarly, *inter-* expresses locational and temporal meanings in addition to some other notions depicted by the researcher such as that of power, relation, multiplicity, and causation. Examples of the locational sense of *inter-* are as follows: *interaction (n.), interbreed (v.), interchange (n.), intercity (adj.), intercom (n.),* and *interstellar (adj.). Interim (adj.), interject (v.), interlude (n.), interminable*

(adj.), intermission (n.), intermittent (adj.), interregnum (n.), interval (n.), and *intervene (v.)* function as instances for the temporal notion. The meaning of power can be traced in *intercede (v.)* and *intercession (n.).* The notion of relation is clear in *interconnected (adj.), interconnect (v.), interdependent (adj.), interface (n.), interlocutor (n.), interview (n.),* and *interweave (v.).* The lexical items*: interdisciplinary (adj.), interfaith (adj.), intermarriage (n.), international (adj.), interracial (adj.), interscholastic (adj.),* and *interstate (adj.)* denote a sense of multiplicity. Finally, *interlink (v.)* and *internationalize (v.)* have causative indications.

An important notice is that the prefix *inter-* necessitates the presence of *"plural, conjoined, or collective arguments"* as has been highlighted by Lieber (2005, 399). Consider the following examples:

 Some of the wolves had interbred with domestic dogs (CALD3).
*A wolf had interbred.
The tribe intermarried (Lieber, 399).
*The villager intermarried (Lieber, 399).

Finally, the prefix *ante-*; also, has temporal and locational senses. The temporal sense can be illustrated via the lexical items: *antebellum (adj.), antecedent (n. /adj.), antedate (v.),* and *antenatal (adj.).* However, the word *anterior (adj.)* indicates a location. Besides, there is a notion of size in *anteroom /antechamber (n.).*

Ninth, the locational prefix *super-* indicates a variety of senses such as: locational, excess, and superlative meanings as suggested by Lieber (2005, 397). However, a number of other uses has been found. There are notions of quantity, negation, quality, size, and comparison. The locational sense is represented by *superconductor (n.), superficial (adj.), superimpose (v.), supermarket (n.), superscript (n.), superstore (n.), and superstructure (n.). The excess meaning is clear in superabundant*
(adj.) and *superfluous (adj.).* All of *superb (adj.), supercilious (adj.), superhero (n.), superhuman (adj.), superwoman (n.),*

superlative (adj.), superman (n.), and *supersize (adj.)* express a superlative sense. The quantitative notion is apparent in *supercharged (adj.). Superficial (adj.), supernatural (adj.),* and *superstitious (adj.)* have negative indications. A notion of quality has been expressed in *superglue (n.), superpower (n.), supermodel (n.),* and *superstar (n.).* The words *superhighway (n.), supermarket (n.), supersize (adj.), superstore (n.),* and *supertanker (n.)* denote size. A sense of comparison is clear in *supercharge (v.), superior (adj.), supersaver (n.),* and *supersonic (adj.).*

Finally, the prefixes *trans-, by-, circum-,* and *extra-,* have been said to have locational uses only (Lieber, 2005, 397). However, only *circum-* follows this suggestion since *trans-, by-,* and *extra-* have been proven to have a variety of other meanings attached to them.

To begin with, besides the locational sense of *trans-,* there are some other traced notions such as that of comparison, change, causation, difference, violation, and quantity. Moreover, a temporal sense has been depicted. The locational meaning is clear in *transatlantic (adj.), transcontinental (adj.), transcend (v.), transfer (v.), transit (n.), transmit (v.), transplant (v.), transport (v.), transpose (v.),* and *transverse (adj.).*

The comparative notion can be obtained via words such as: *transcend (v.)* and *transcendent (adj.).* A sense of change can be traced in *transfigure (v.), transform (v.), transition (n.), translate (v.), transmogrify (v.),* and *transmute (v.). Transfix (v.)* has a causative meaning. There is a sense of difference in *transliterate (v.). Transgress (v.)* expresses violation. *Transnational (adj.)* has a quantitative indication. Finally, the temporal sense is apparent in *transient (adj.)* and *transitory (adj.).*

Similarly, *by-* is a prefix that indicates location along with a temporal sense as well as a notion of size (Lieber, 2005, 397). The locational sense appears in words such as: *bylaw (n.), by-line (n.), bypass (v.),* and *bystander (n.).* The temporal meaning is clear in *by-*

election (n.), bygone (adj.), and *byplay (n.).* The notion of size is apparent in *byway (n.).*

The prefix *circum-* has a locational sense (Lieber, 2005, 397) which is clear in words such as *circumference (n.), circumnavigate (v.),* and *circumscribe (v.).*

As far as the prefix *extra-* is concerned, there are senses of location and addition attached to it (Lieber, 2005, 397). There are also a sense of negation and quantity expressed via using *extra-*. The locational meaning can be illustrated via a word such as *extraterrestrial (adj.).* A sense of addition is clear in *extracurricular (adj.)* and *extra time (n.). Extraneous (adj.)* and *extrasensory (adj.)* express a sense of negation. The notion of quantity can be traced in words such as*: extranet (n.), extraordinary (adj.),* and *extravagant (adj.).*

2.3Temporal and Aspectual prefixes:

This cohort of prefixes include *pre-*, *post*, *ex-*, *retro-* and *re-* (Lieber, 2005, 400). In addition to the temporal indication they add to roots, some of them may; also, have locational interpretations. The prefixes *pre-*, *post-*, *ex-*, and *retro-*, mean *before*, *after*, *formerly*, and *backwards* respectively.

It is important to notice that *pre-* does not always mean *before*; its temporal scope may also encompass other meanings such as *sooner than expected*, *earlier than usual*, or *a period of time* (Lieber, 2005, 400). Examples of words in which *pre-* adds a temporal sense are: *prearranged (adj.), precancerous (adj.), precede (v.), precedence (n.), precedent (n.), preceding (adj.), presuppose (v.), pretax (adj.), preventive (adj.), preview (n.), previous (adj.),* and *pre-war (adj.).*

It is worthy of notice that in the case of *predominant (adj.),* the prefix *pre-* adds nothing to the base; it only intensifies the meaning, and it denotes a comparative sense rather than a temporal one. *Pre-*; also, does not add any extra meanings when attached to the root *figure* forming the verb *prefigure*; it only emphasizes its meaning. A

comparative sense has been also indicated in *pre-eminent*. In the verb *predominate*, the prefix *pre-* intensifies the meaning of the verb, and instead of indicating a temporal notion, it suggests a superlative sense.

Moreover, a negative sense of *pre-* appears in *preliterate* (*adj.*) while in *premolar*, the prefix pre- expresses a locational sense.

As far as the prefix *post-* is concerned, it means *after*. In addition, it sometimes has locational indications (Lieber, 2005, 400). Examples of notions that express a temporal sense are: *postdate (v.), posterior (adj.), postgraduate (n. /adj.), posthumous (adj.), postpone (v.), postprandial (adj.), postseason (adj.), posttraumatic stress disorder (n.), and post-war (adj.)*. Both *posterior (adj.)* and *postscript (n.)* have locational indications. Moreover, the words *posterity (n.), posthaste (adv.),* and *post-industrial (adj.)* denote a future group of people, pace, and negation, respectively.

The third temporal prefix to be considered is the prefix *ex-* which means *formerly* (Lieber, 2005, 401). Some examples include: *ex-husband (n.), ex-serviceman (n.), ex-servicewoman (n.), ex-wife (n.), ex-prisoners (n.), ex-policemen (n.),* and *ex-girlfriend (n.).* As Lieber suggested, *ex-* is not only restricted to stage-level nouns but it can also be attached to individual-level nouns such as: *ex-car, ex-house,* and *ex-school*…etc (2005, 400/401). It is worthy of notice that *ex-* has a negative notion in *ex-directory (adj.)* while it plays an emphasizing role in *exterminate (v.).*

The fourth prefix of this cohort is *retro-*. It means *backwards* or *looking at or copying the past*. The temporal sense of *retro-* appears in words such as: *retroactive (adj.), retrograde (adj.), retrogress (v.), retrospect (n.),* and *retrospective (adj.).* The noun *retro-rocket (n.)* denotes a directional notion.

The last prefix of this cohort is *re-*. *Re-* is observed both semantically and syntactically. As far as semantics is concerned, *re-*

is a verbal prefix that is said to indicate repetition, rectification, or reversal (Lieber, 2005, 401). It is also claimed that this prefix attaches only to verbs which are transitive, telic, and the result of which is irreversible or not permanent (Lieber, 2005, 401&402). In addition, it has been argued that *re-* does not attach to stative, activity, and semelfactive verbs. Syntactically speaking, *re-* is regarded to be in complementary distribution with dative nouns, particles, and idiomatic nouns (Lieber, 2005, 401&402).

As a start, some examples of verbs that denote a repetitive sense are: *reaffirm [T], reforest [T], reappear [I], reapply [I/T], reappraise [T], rearm [I/T], reassemble [I/T], reassess [T], reboot [I/T], rebuild [T], recall [I/T], recapitulate / recap [I/T], recharge [I/T], reconstruct [T], recount [T], recreate [T], recuperate [I], recycle [T], redecorate [I/T], rediscover [T], reelect [T], re-enact [T], refill [T], refuel [I/T], reincarnate [T], reissue [T], reiterate [T], rekindle [T], relive [T], reload [T/I], remarry [I/T], reopen [I/T], replay [T], replenish [T], reprint [I/T], reproduce [I/T], rerun [T], re-sit [T], reschedule[T], restart [I/T], restate [T], retake [T],* and *rethink [I/T]*. Moreover, the notion of rectification can be traced in verbs such as: *readdress [T], readjust [I /T], realign [T], rearrange [T], reassemble [I/T], recast [T], redeploy [T], redevelop [T], redistribute [T], refit [I/T], reform [I/T], refurbish [T], regenerate [T], rehouse [T], rejuvenate [T], relocate [T/I], remake [T], re-master [T], remix [T], remodel [T], retread [T], renew [T], reorganize [I/T], rephrase [T], replace [T], reprocess [T], reskill [I], research [I/T], reshape [T], restore [T], restructure [T], retake [T],* and *retouch [T]*. Finally, the reversal use of *re-* is apparent in: *reactivate [I/T], rebound [I], recapture [T], reclaim [T], reconstitute [T], redirect [T], refund [T], regain [T], rehabilitate [T], rejoin [T], relapse [I], repay [T], repossess [T], resell [T],* and *retrace [T]*. It is worthy of notice that there is a quantitative sense in the transitive verb *redouble*. It is; also, worthy of attention that there are some nouns to which *re-* can attach resulting in a sense of repetition, rectification, or reverse. Some examples are: *reappraisal,*

readjustment, realignment, redevelopment, redistribution, re-enactment, reformation, renewal, and *repayment*. In addition, the prefix *re-* in the following adjectives denotes a repetitive, reversible, or rectifying notion: *rechargeable, reconstructive, recycled, reformed, refundable, renewable,* and *repayable*.

As far as the second claim is concerned, the researcher's investigation proves that *re-* attaches to both transitive and intransitive verbs equally. Moreover, it does not only attach to telic verbs, but also to some atelic ones. In *repossess, regenerate, rehouse,* and *research*, *re-* attaches to atelic roots. Finally, although it has been claimed that *re-* does not attach to roots that indicate an impermanent result, there are some verbs such as*: resell, repossess, rehouse, recreate,* and *regain* in which the roots indicate impermanent results. *Re-*; also, attaches to roots that have reversible meanings such as *reforest, redevelop, redirect,* and *rejoin.*

Most interestingly, in contrary to what has been suggested before, *re-* does attach to some stative, activity, and semelfactive verbs. It is possible to *rethink* and *re-feel*. It is; also, possible to *recook, re-dance, rerun, re-ascend,* or *re-descend*. Finally, given the appropriate contextual atmosphere, *re-blink, re-sneeze,* and *re-knock* are possible semelfactive verbs.

Syntactically, re- has been claimed to be in complementary distribution with dative nouns, particles, and idiomatic nouns. The researcher believes that a sentence such as: *they rebought him a dog* is plausible. Nor is there any problem in: *the children re-tidy their toys away* or *I re-tidied up my room.* Concerning idioms, it is logical to consider *re-* to be in complementary distribution with idiomatic expressions as idioms have fixed structure to which lexical items cannot be added as Cruse illustrated in his Lexical Semantics.

2.4 Quantitative prefixes:

The set of quantitative prefixes include *bi-*, *di-, multi-*, *poly-*, and *semi-*. They all denote quantity (Lieber, 2005, 402).

Some examples of words in which *bi-* indicates quantity are *biannual (adj.), bicameral (adj.), bicycle (n.), biennial (adj.), bifocals (n.), bifurcate (v.), bivalve (n.),* and *biweekly (adj. /adv.).* In addition to the quantitative notion that *bi-* bear to bases, a temporal sense has been noted in the noun *bicentenary /bicentennial (n.).*

Di-; also, indicates quantity. Some instances are *diatomic (adj.), diatonic (adj.), diphthong (n.), diploid (adj.),* and *Dixieland (n.).* A temporal sense has been depicted in *diurnal (adj.).*

The third prefix of this cohort is *multi-*. The quantitative meaning is apparent in *multicellular (adj.), multicultural (adj.), multi-dimensional (adj.), multi-disciplinary (adj.), multi-ethnic (adj.), multi-faceted (adj.), multifarious (adj.), multilateral (adj.), multilingual (adj.), multimedia (adj.), multimillionaire (n.), multinational (adj.), multiplicity (n.), multipurpose (adj.), multiracial (adj.), multitasking (n.), multitask (v.),* and *multitude (n.).*

Fourth, there is the prefix *poly-*. It indicates quantity in all of the following examples: *polygamy (n.), polygamist (n.), polygamous (adj.), polyglot (adj.), polygon (n.), polyhedron (n.), polymath (n.), polymorphous (adj.), polyphony (n.), polyphonic (adj.), polysemous (adj.), polysyllabic (adj.),* and *polytheism (n.).*

Finally, the prefix semi- expresses a quantitative meaning in *semi-arid (adj.), semi-automatic (adj.), semibreve (n.), semicircle (n.), semi-circular (adj.),* and *semi-skilled (adj.).*

2.5 Verbal prefixes:

De- and *en-* are verbal prefixes; they form verbs out of nouns, adjectives, and /or other verbs (Lieber, 2005, 402).

As denoted before in the section of the set of negative prefixes the prefix *de-* is a privative one that expresses a negative meaning when attaches to verbs (often those end in ize-, ify-, and ate-.), or nouns. It; also, adds the meaning *causative* to the nouns and verbs to which it attaches, so verbs start in *de-* tend to be negative causatives. For verbs that already have the causative sense, only the privative meaning is added. (Lieber, 2005, 402). Some examples are:

deactivate, decompose, decontaminate, deform, detoxify, dethrone, deregulate, devalue, demilitarize, etc.

De-; also, denotes the negative causative sense in nouns such as: *deactivation, decomposition, detoxification, dehydration, deregulation,* and *demilitarization*. What is to be added concerning the prefix *de-* is that besides forming privative verbs, it can; also, produce the ablative meaning. The verbs *deplane* and *deport* express an ablative sense. The ablative sense is; also, clear in the noun *deportation*.

The second verbal prefix is the prefix *en-* which forms causative verbs out of nouns and adjectives (Lieber, 2005, 402). Some examples are: *enable, enact, encamp, encase, encircle, enclose, encode, encourage, endanger, endear, enfeeble, enfold, entrust,* and *envisage*.

3. Suffixation:

3.1 Personal suffixes:

Suffixes that are used to form personal nouns include *-er, -or, -ant /-ent, -ist, -ee,* and *–an /-ian.* What is interesting in this cohort of suffixes is that they assign a number of different interpretations or functions to the nouns they compose (Lieber, 2005, 403).

Nouns that contain the suffix *-er*, for example, can be interpreted as indicating an agent, an instrument, an experiencer, a stimulus, a patient /theme, a denominal noun, a measure, or a location (Lieber, 2005, 403&404). The following nouns are to be interpreted as agents: *doer, buyer, maker, piper, lover, baker, rider, voter, loser, racer, boxer, ruler, miner, mover, diver, gamer, etc.* The nouns *poker, laser, mixer, dryer, pager, timer, toner, marker, roller, opener, filter, cruiser,* and *dresser* are instruments. *Viewer, hearer,* and *taster* refer to experiencers. A stimulus is indicated in each of *flyer /flier, banner,* and *thriller*. The nouns *worker, fryer, keeper,* and *sinker* represent a patient /theme. The word *fiver* indicates measure while the word *diner* refers to a location (Lieber,

2005, 404). Finally, *banker, porter, chatter, Londener, villager,* and *freighter* are denominal nouns.

The functions: patient/ theme, agent /subject, indirect object, no argument, and denominal noun are assigned to nouns that contain the suffix *-ee* as indicated by Lieber (2005, 404). The words: *appointee, nominee, employee, deportee, detainee, internee, divorcee, evacuee,* and *amputee* function as patients. All of the following words are agents: *attendee, patentee, licensee, absentee, trustee, referee, retiree, devotee, escapee,* and *refugee*. The two words *consignee* and *addressee* function as indirect objects. The word *mortgagee* is a denominal noun. Finally, *grandee* has no argument though the researcher conceives it as a deadjectival noun.

The suffix *-ant /-ent* assigns the functions of agent, instrument, experiencer, and patient to the nouns they form as suggested by Lieber (2005, 404). However, some examples of the functions of an agent and a patient have been found by the researcher. The following nouns function as agents: *participant, immigrant, applicant, protestant, attendant, subtenant, assistant, celebrant, informant, assailant, aspirant,* and *claimant*. On the other hand, the nouns: *communicant, defendant, recipient, confidant,* and *descendant* can be considered as patients.

The suffix *-ist* is said to form nouns that are either denominal or adjectival (Lieber, 2005, 404). The following nouns are denominal ones: *instrumentalist, psychotherapist, ophthalmologist, preservationist, psychologist, psychiatrist, journalist, guitarist, Marxist, pianist, violinist, receptionist, nutritionist,* and *terrorist*. On the other hand, *specialist, rationalist, nationalist, materialist, colonialist, naturalist, traditionalist, purist, fatalist, vocalist, activist,* and *feminist* are deadjectival nouns.

Egyptian, Australian, African, politician, parliamentarian, statistician, electrician, academician, centenarian, librarian, technician, civilian, vegetarian, grammarian, physician, historian, musician, egalitarian, and *guardian* are all examples of personal nouns that end in *–ian* suffix. Moreover, the suffix *–ian* forms

adjectives. Some examples are: *egalitarian, draconian, Amazonian, mammalian, civilian, agrarian,* and *utopian.*

Moreover, *Investigator, demonstrator, interlocutor, communicator, distributor, commentator, facilitator, invigilator, instructor, collector, professor, inspector,* and *contractor* are instances of personal nouns that are formed by adding the suffix *or*.

It is worthy of notice that sometimes the resulting word after adding the *-or* suffix is not a personal noun; for example, *transistor, predator, elevator, detector, indicator, processor, radiator, monitor, projector,* and *calculator* are not persons, but rather subjects. The words: interior, exterior, and bisector indicate location while *inferior* and *superior* are adjectives.

3.2 Abstract suffixes:

As Lieber has divided them, the suffixes that form abstract nouns are of three types. There are the deverbal, deadjectival, and denominal nominalizers (Lieber, 2005, 406).

First, deverbal nominalizers are suffixes that attach to verbs to compose nouns. The suffixes: *-al* (arrival, approval, refusal), *ance /- ence* (significance, maintenance, disturbance, performance, inheritance, resemblance, acceptance, attendance, occurrence, preference, dependence, divergence), *-ation* (realization, recommendation, specialization, transformation, representation, administration, reconciliation), *-ment* (appointment, accomplishment, acknowledgment, adjustment, development, establishment, encouragement, reinforcement, entertainment, advertisement, announcement, employment, achievement, requirement, improvement, refreshment), and *–ure* (pressure, disclosure, departure, sculpture, creature, pleasure, exposure) belong to this cohort.

The nouns formed out of these suffixes have either a result or an event /process interpretation (Lieber, 2005, 408). For example, *approval, refusal, significance, occurrence, preference, inheritance, resemblance, acceptance, dependence, divergence,* and *requirement*

may have a result reading in context. *Arrival, maintenance, disturbance, performance, attendance, recommendation, specialization, transformation, representation, administration, development, establishment, entertainment, advertisement, announcement, employment, departure,* and *sculpture* may refer to event/ process interpretation in appropriate contexts. The word *realization* may have either a result or an event/ process reading according to the context in which it appears.

Second, the set of deadjectival nominalizers encompasses the suffixes *-ness* and *-ity* which attach to adjectives so as to form nouns (Lieber, 2005, 409). Some examples of nouns that are composed out of the suffixes *-ness* and *-ity* are: *pleasantness, consciousness, sickness, forgetfulness, resentfulness, harmlessness, homelessness, hopelessness, rootlessness, hideousness, assiduousness, obliviousness, pointlessness, possibility, electricity, abnormality, sensibility, personality, objectivity, originality, eventuality, rationality, nationality, curiosity, obscurity,* and *authenticity.*

Third, the suffixes *-dom*, *-hood*, - and *-ship* are referred to as denominal nominalizers as they attach to nouns so as to produce nouns as well (Lieber, 2005, 409). The words: *superstardom, officialdom, martyrdom, kingdom, stardom, dukedom, boredom,* and *earldom* are examples of the suffix *-dom*. It is worthy of notice that in a word such as *freedom*, *-dom* attaches to an adjective and the result is a noun. The suffix *-hood* forms nouns, also. However it does not attach to abstract nouns as Plag (1999) suggested (cited in Lieber, 2005, 409). Some instances can be: *widowhood, brotherhood, priesthood, babyhood, boyhood, girlhood,* and *manhood.* In all the previous examples, *hood* does attach to nouns which are not abstract; however, the resulting nouns are abstract ones. Sometimes, *-hood* attaches to adjectives forming nouns as in: *likelihood, livelihood,* and *falsehood.* Finally, the abstract-noun forming suffix *-ship* appears in words such as: *sportsmanship, statesmanship, seamanship, swordsmanship, salesmanship, kingship, lordship, headship,* and *ownership.*

3.3Verb-Forming suffixes:

This cohort of suffixes includes: *-ize*, *-ify*, *-ate*, and *–en* (Lieber, 2005, 410). Theses suffixes attach to nouns and adjectives forming verbs. There are a number of interpretations associated with two of these four suffixes, namely *-ize* and *-ify*, as it will be illustrated below.

The meaning of the suffix *-ate* is either ornative or resultative as suggested by Plag (qtd. in Lieber, 2005, 411). For *–en*, it only converts nouns and adjectives into verbs.

As suggested by Lieber, there are a variety of meanings attached to the verb-forming suffixes *-ize* and *-ify*. Using Plag terms, verbs that contain *-ize* and *-ify* are said to be having one of these senses: causative/ resultative, ornative, locative, similative, performative, or inchoative. Causative/ resultative indicates the meaning " make x" or "cause to become x", ornative means "make x go to/in/on/ something",locative means "make something go to/in/on x", performative means "do x", similative means "do/act/make in the manner of or like x", and inchoative means "become x" (Lieber, 2005, 410).

Some examples of verbs that end in suffixes from this cohort includes: *photosynthesize, depersonalize, industrialize, contextualize, characterize, sensationalize, emphasize, specialize, Simplify, classify, identify, humidify, signify, qualify, specify, congratulate, rehabilitate, discriminate, compensate, authenticate, lengthen, strengthen, shorten, tighten, sweeten, harden, widen, lighten, soften, weaken, darken,* and *liven.* (CALD3)

The causative/ resultative meaning is apparent in words such as: *photosynthesize, depersonalize, sensationalize, emphasize, sensitize, electrify, solidify, liquefy,* and *clarify*. The words: *contextualize, marginalize,* and *classify* show the ornative sense. The locative meaning can be depicted in: *hospitalize, containerize,* and *codify*. A performative sense can be felt in*: industrialize, specialize, theorize,*

simplify, identify, and *falsify*. The simulative meaning is apparent in*: characterize, infantilize,* and *speechify*.

Finally, the inchoative sense is shown in words such as: *revolutionize, caramelize, solidify, liquefy, acidify, humidify,* and *beautify*, for example.

Although Plag, (1999:205, qtd. in Lieber, 2005, 411), suggests that verbs which end in the suffix *-ate* have only one of the two senses: ornative or resultative, the researcher found that some of the senses which are mentioned previously and which are attached to verbs ending in *-ize* and *–ify* are; also, applicable to *ate* verbs. For example, the senses: performative, similative, and inchoative also exist. Consider the following insatnces*: congratulate (performative), rehabilitate(causative/ resultative), discriminate(similative), compensate(performative), authenticate(performative), articulate(similative), associate(performative), aggregate(ornative), demonstrate(resultative), participate(ornative), concentrate(ornative), consolidate(causative/ resultative), communicate(ornative), encapsulate(performative), contaminate(causative/resultative), accommodate(ornative), negotiate(performative), interrogate(performative), collaborate(performative), deteriorate(inchoative), approximate(similative), necessitate(causative), investigate(performative), predominate(performative), assassinate(pervormative), domesticate(causative), invalidate(causative), decorate(performative), originate(causative), formulate(performative), oxygenate(ornative), vaccinate(ornative),* and *activate(causative).*

Finally, the suffix *–en* conveys the senses: causative and performative; the ones conveyed by the other suffixes in this cohort. For example, the causative sense is apparent in: *lengthen, strengthen, shorten, tighten, sweeten, harden, straighten, hearten, darken,* and *liven.* The word *threaten* expresses the performative sense.

3.4 Adjective-Forming suffixes:

The set of adjective-forming suffixes encompasses the denominal suffixes: *-al, -ed, -en, -esque, -ful, -ic, -ish, -less, -ly, ous, -some,* and *-y* which are added to nouns to form adjectives in

addition to the deverbal suffixes: *-able, -ive*, and *-ory* that form adjectives out of verbs (Lieber, 2005, 413&417).

3.4.1 Denominal Adjectives:

First, the semantic side of denominal adjective-forming suffixes will be considered. The investigation of this cohort will be conducted on five levels. The first level is concerned with the depiction of which suffixes have a relational reading and which have a qualitative one. According to Beard (1991), (qtd. in Lieber, 2005, 414), relational adjectives cannot be predicates, and they cannot be accompanied by either "more" or "very". Second, as Beard indicates, some denominal adjectives can have both the relational and the qualitative reading showing *bracketing paradox* (Lieber, 2005, 414). Third, some adjectives in the set of qualitative adjectives are said to be having two interpretations: a possession and a similarity/ likeness one as indicated by Beard (1976, 1991, 1993, 1995, qtd. In Lieber, 2005, 415). These two meanings are traced in this level of investigation. Fourth, the meaning of the privative suffix *-less* is compared to the meaning of the suffix *-free*. Finally, the combination of the suffix *-ed* with nouns of alienable and inalienable possession is investigated.

Some examples of denominal adjectives include:

controversial, professional, occupational, structural, balanced, privileged, bearded, disadvantaged, interested, broken-hearted, leaden, mistaken, earthen, woolen, drunken, picturesque, statuesque, thoughtful, disrespectful, meaningful, powerful, successful, distasteful, peaceful, photographic, catastrophic, historic, athletic, amateurish, childish, wolfish, nightmarish, stylish, bookish, directionless, expressionless, characterless, featureless, thoughtless, meaningless, purposeless, friendly, shapely, brotherly, sisterly, nightly, weekly, monthly, yearly, worldly, womanly, disadvantageous, hazardous, monstrous, poisonous, cautious, religious, repetitious, advantageous, toothsome, quarrelsome,

venturesome, troublesome, wholesome, tricky, speedy, funny, lucky, moody, noisy, sunny, fatty, risky, handy, and *petty*.

From the list above, the following adjectives are to be considered as relational ones, according to Beard's criteria (Lieber, 2005, 414). They are the adjectives: *operational, bearded, scripted, deceased, wooden, earthen, woolen, nightly (nightly bombardment of the city looks set to continue), worldly (her worldly success cannot be denied), woolly,* and *victorious.* The rest of the examples are qualitative adjectives.

The adjective *worldly* has both a relational reading as in *her worldly success can hardly be denied* and a qualitative one as in *she seems to be much more worldly than the other students in her class.*

It is worthy of notice that Lieber's assumptions that: first, the suffix *-al* prefers relational readings, second, the suffixes *-ed*, *esque*, *-ish*, *-ous*, *-some*, and *-y* prefer qualitative ones, and finally, *-ic* can be compatible with either readings are not always applicable as the examples above have shown.

Some qualitative adjectives can express meanings of possession and similarity. The adjective *sandy*, for example, indicates possession in "a sandy beach" and similarity in " sandy hair" (Lieber, 2005, 415). Similarly, the adjective *wolfish* in *wolfish forests* expresses the meaning of possession while in *wolfish green eyes* expresses similarity. Also, *nightmarish* in *a nightmarish nap* has a possession interpretation while a similarity or likeness one in *a nightmarish adventure.*

The connotative meaning delivered via using the privative suffix *-less* is different from that delivered through using the suffix *-free* as suggested by (Gorska, 1984 and Slotkin, 1990, qtd. in Libere, 2005, 415). Derived words with *-less* are said to be having negative connotations while those which are combined with *-free* are said to be having positive ones. For example, *childless* indicates that having no children is an undesirable situation while *child-free* suggests that such a situation is an advantage. Similarly, *careless* is

considered as a negative attribute while *carefree* describes a state of peace of mind and having no problems or responsibilities.

The last semantic point concerning the set of denominal adjectives focuses on the combination of *-ed* suffix with nouns of alienable and inalienable possession. It is weird and nonsense to describe a child as *an eyed child* since all children have eyes; however if the phrase is pre-modified; then, it would be reasonable to say *a green-eyed child.* Similarly, *a legged man* is not acceptable while *a one-legged man* is quite sensible. Moreover, *a bearded man, a white-bearded man,* or *a red-roofed house* can all be understood; however, *a carred man* or *a greenleafed tree* are not (Hudson, 1975, qtd. in Lieber, 2005, 415).

3.4.2 Deverbal Adjectives:

The suffixes: *-able*, *-ive*, *-ory, -ant* and *-ful* form adjectives when they are added to verbs. There are not a lot of syntactic and semantic issues related to this cohort of suffixes. It is only proposed by Williams(1981) that the suffix *-able* affects the structure of the sentence in that the object of the verb becomes the subject of the *–able* structure; for example, *the shirt* which is the object in *he washed the shirt* becomes the subject in *this shirt is washable* (qtd. in Lieber, 417).

Some instances of deverbal adjectives include: *understandable, recognizable, communicable, approachable, communicative, appreciative, decorative, persuasive, inductive, contributory, discriminatory, regulatory, supervisory, careful, respectful, disdainful,* and *forceful.*

4. Conclusion:

In conclusion, the previous points reflect upon the semantic and syntactic effects of affixes on the bases they attach to. Roots of lexical items experience semantic as well as syntactic transformations when colligating with different prefixes and suffixes. Moreover, some semantic and syntactic restrictions are imposed upon various morpheme- root combinations. Finally, Lieber's suggestions and assumptions are investigated and examined resulting in approving some of them while defying some other, as presented above.

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