

Analysis of Verb-Particle Nouns with *up* Semantic Feature, the Contrast with Synonymous Nouns and the Characteristics of the Base Verb-Particle Constructions *

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1. Introduction

Studies of morphology have distinguished several ways in which new words are created: compounding, derivation, clipping, loaning and conversion. Conversion is the process in which a word changes its word class without adding an affix. For example, in “Do you have a solve for this problem?” the verb *solve* is converted, or switched, into a noun. Such conversion of verbs into nouns is sometimes regarded as controversial. According to an article in the *New York Times*¹, using verbs as nouns is associated with legalese, bureaucracy, and corporate jive, and is even regarded as a slovenly, obscure and ugly form of expression. Although some condemn the nominalization of verbs as evidence of the corruption of language, the phenomenon itself is hardly new: “solve” used as a noun is found in the eighteenth century and “fail” used as a noun is older than “failure” which replaced it. Conversion of so-called “verb-particle constructions” into nouns is, however, a recent formation which has become increasingly common since the late nineteenth century. A “verb-particle construction (VPC)”, which is also called a “phrasal verb,” is a combination of a verb and a particle such as *break away*, *pick up*, and *take off*. Some verb-particle constructions combine to form nouns as in

breakaway, breakdown, breakout, breakthrough, breakup, buildup, dropout, followup, frameup, getaway, getby, getout, gettogether, getup, hideout, holdup, hookup, layout, leadin, leftover, letup, makeup, payoff, rakeoff, sellout, setback, setup, shakeup, shareout, showdown, stepup, takeoff, takeover, throwaway, walkout, walkover (Potter 1969:171)

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¹ <http://opinionator.blogs.nytimes.com/2013/03/30/those-irritating-verbs-as-nouns/>

These nouns that are converted from verb-particle constructions are termed verb-particle nouns (VPNs)². Although the existence of these nouns has been noted in previous studies of VPCs (Shimada 1985:95-104, Fraser 1976, Biese 1941), their syntactic and semantic features have yet to be thoroughly investigated. We can find a lot of nouns formed by a verb plus a particle such as those quoted above, but all the VPCs do not convert into nouns; the VPC *come up*, for instance, does not nominalize to form **comeup*. No studies of VPNS have clarified what VPCs can nominalize and what VPCs cannot. Previous studies have emphasized the semantic versatility of VPNS. VPNS can refer variously to activities, as in *cleanup* (to clean up), to physical objects, as in *makeup* (substance put on one's face) and to persons as in *dropout* (someone who leaves school). They are also used like attributive adjectives, modifying the following noun as in *wakeup call* and *backup file*. (Shimada 1985, p.96-99) There has not as yet been any investigation of possible semantic features common to all VPNS.

This study aims to investigate the following unsolved questions: (1) What verb-particle constructions are likely to convert into nouns? ; (2) What semantic features do VPNS possess? ; (3) How are VPNS such as *makeup* different from their synonyms such as *cosmetics*? As to the first question, a VPC that is transitive and indicates affectedness tends to nominalize. As to the second question, comparing the meanings of VPNS with those of their respective VPCs has led to the hypothesis that VPNS tend to denote a person/thing that is interpreted as conducting the action denoted by the base VPC. As to the third question, VPNS are more likely to be modified and less likely to be used attributively than their synonymous nouns.

2. Previous studies

To sum up the previous studies of VPNS, there are five points to be noted. First, the proliferation of VPNS is a relatively recent phenomenon. The number of VPNS began to increase only after the late nineteenth century. Second, most VPNS are fore-stressed and are formed by a monosyllabic verb plus a monosyllabic particle. Thirdly, a VPN tends to develop various senses that are related to the corresponding VPC. In addition to the semantic diversity, what is exaggerated in the literature is that VPNS often carry colloquial and expressive connotations. Rathay (1991:167) points out that they are thus frequently used in journalistic writings both in titles and in texts. Fourthly, as to the contextual feature of VPNS, they are often used in the following fields: sports, warfare and commerce. Within a sentence, they are likely to appear as the object of a light verb such as *make*, *have* and *give*. Fifthly, most VPNS are converted from VPCs, which precede the corresponding VPNS in time. However, there are some VPNS (such as *crackdown*) that appear before the corresponding VPCs. In addition,

² It is observed that VPNS display spelling variations; the two elements of a VPN can be written with and without a hyphen between them. In this study, all the VPNS investigated are spelled without hyphens to emphasize that the two elements combine together to form a noun.

some VPNs, such as *die-in* and *love-in*, do not even have the corresponding VPCs and thus are coined by combining a verb and a particle.

3. Definition and data

Following the definitions set by Sørensen (1986), I consider a VPN as a deverbal noun that consists of an infinitive verb plus a particle denoting movement. This definition excludes words like *diehard*, *knowhow*, and *stay-at-home* because their non-initial elements do not fit the description. And this study focuses only on VPNs with *up* such as *makeup*, *backup*, and *pickup*. The reason for limiting the scope of the research to *up*-VPNs is that *up* is the most frequent particle used in VPNs (Lindelöf 1937:32). It is reasonable to assume that studying *up*-VPNs should contribute to clarifying the characteristics of VPNs in general. There are a few words of this type that seem to occur only in an adjectival function. Among them are *foldup* (*bed*) and *wakeup* (*call*). I consider these words as the targets of my research since they can be regarded as potential nouns.

This study analyzes one-hundred *up*-VPNs and one-hundred *up*-VPCs that are the most frequent. The corpus I used to collect *up*-VPNs and *up*-VPCs is COCA (Corpus of contemporary American English). The reason I chose COCA is that American English plays a prominent part in the creation of VPNs. Lindelöf (*ibid*:39) points out that the number of VPNs that make their first appearance in the United States has been increasing since the nineteenth century. Table 1 shows the frequency ranking of *up*-VPNs, which is obtained by searching all the words which end with *up* and function as a noun. However, the words such as *group*, *cup* and *soup*, which end with *up*, but do not contain a verb, are excluded from the table manually. Table 2 shows the frequency ranking of *up*-VPCs, which is obtained by searching all the verbs that occur within four words before *up*. The verbs marked with * do form a verb-particle construction, but do not nominalize; for instance, the VPC *come up*, even though it is a frequent verbal phrase, does not nominalize to yield the *up*-VPN *comeup*. The verbs marked with ** do not form an *up*-VPC; the combination *do up* is not a verb-particle construction.

Table 1 frequency of up-VPNs

ranking	VPN	frequency	ranking	VPN	frequency
1	[MAKEUP]	12573	51	[TOUCH-UP]	214
2	[PICKUP]	9390	52	[WORK-UP]	213
3	[BACKUP]	5906	53	[DUST-UP]	205
4	[LINEUP]	5522	54	[LACE-UP]	196
5	[SETUP]	5387	55	[WRAP-UP]	190
6	[CLEANUP]	4950	56	[SEND-UP]	185
7	[FOLLOW-UP]	4330	57	[LEAD-UP]	182
8	[START-UP]	3569	58	[WRITE-UP]	178
9	[BREAKUP]	3235	59	[SLIP-UP]	171
10	[BUILDUP]	2978	60	[MASH-UP]	151
11	[WARM-UP]	1949	61	[FUCK-UP]	133
12	[MATCHUP]	1893	62	[LET-UP]	130
13	[COVER-UP]	1856	63	[LINK-UP]	119
14	[WAKE-UP]	1671	64	[CRACK-UP]	118
15	[PUSH-UP]	1389	65	[STEP-UP]	103
16	[CHECKUP]	1319	66	[LOOKUP]	101
17	[ROUNDUP]	1049	67	[SPEED-UP]	99
18	[RUN-UP]	928	68	[TIE-UP]	97
19	[POP-UP]	913	69	[MOVE-UP]	87
20	[HOOKUP]	868	70	[FOUL-UP]	85
21	[STAND-UP]	744	71	[FOLD-UP]	82
22	[MARKUP]	658	72	[CURL-UP]	78
23	[LAYUP]	638	73	[FILL-UP]	74
24	[BEAT-UP]	624	74	[BANG-UP]	73
25	[SIT-UP]	583	75	[SHAPE-UP]	72
26	[SHAKE-UP]	556	76	[SCALE-UP]	71
27	[BLOW-UP]	481	77	[STICK-UP]	70
28	[CATCH-UP]	460	78	[HURRY-UP]	70
29	[TUNE-UP]	433	79	[TAKE-UP]	67
30	[PULL-UP]	426	80	[FRAME-UP]	64
31	[FLARE-UP]	423	81	[LIGHT-UP]	62
32	[WIND-UP]	404	82	[MOP-UP]	58
33	[LOCKUP]	400	83	[ZIP-UP]	53
34	[HANG-UP]	354	84	[RAMP-UP]	53
35	[HOLDUP]	338	85	[POST-UP]	52
36	[WALK-UP]	334	86	[DRIVE-UP]	47
37	[GET-UP]	331	87	[FIX-UP]	46
38	[MOCK-UP]	322	88	[SPIT-UP]	46
39	[MIX-UP]	316	89	[SHUT-UP]	45
40	[CHANGE-UP]	313	90	[FREEZE-UP]	44
41	[TOSS-UP]	307	91	[BOOT-UP]	37
42	[SIGN-UP]	306	92	[TRADE-UP]	35
43	[PIN-UP]	286	93	[MEET-UP]	35
44	[SCREW-UP]	280	94	[SUCK-UP]	35
45	[DRESS-UP]	270	95	[COCK-UP]	32
46	[PILEUP]	262	96	[SPLIT-UP]	31
47	[DIAL-UP]	244	97	[MESS-UP]	29
48	[CUT-UP]	243	98	[MEETUP]	28
49	[CALL-UP]	241	99	[POWER-UP]	25
50	[ROLL-UP]	230	100	[THROW-UP]	23

Table 2 frequency of up-VPCs

ranking	VPC	frequency	ranking	VPC	frequency
1	[BE]**	176734	51	[CALL]	5429
2	[HAVE]**	83075	52	[THINK]*	4740
3	[COME]*	64149	53	[LIVE]*	4620
4	[PICK]	60808	54	[FOLLOW]	4551
5	[GET]	39073	55	[KNOW]**	4484
6	[GROW]*	38594	56	[LIGHT]	4479
7	[GO]*	35693	57	[LET]	4436
8	[SET]	34684	58	[WRAP]	4391
9	[MAKE]	32284	59	[WORK]	4389
10	[END]	31678	60	[SHOULD]**	4205
11	[GIVE]	30416	61	[DRIVE]	4100
12	[LOOK]	29141	62	[MAY]**	4093
13	[DO]**	24144	63	[LOCK]	4086
14	[WILL]**	23803	64	[HELP]*	4062
15	[SHOW]	22890	65	[THROW]	4023
16	[STAND]	21394	66	[COVER]	4005
17	[CAN]**	20541	67	[RISE]*	3992
18	[WAKE]	19567	68	[SUM]	3984
19	[WOULD]**	17038	69	[POP]	3946
20	[TAKE]	16798	70	[LEAD]	3817
21	[HOLD]	15905	71	[BEAT]	3806
22	[KEEP]*	14935	72	[ROLL]	3790
23	[BRING]*	14642	73	[FILL]	3778
24	[PUT]	14332	74	[DRESS]	3760
25	[OPEN]*	13655	75	[NEED]**	3598
26	[COULD]**	13298	76	[MIGHT]**	3511
27	[CATCH]	12341	77	[TIE]	3487
28	[PULL]	10688	78	[DRAW]*	3477
29	[CLEAN]	9419	79	[HOOK]	3387
30	[SAY]**	9348	80	[USE]*	3381
31	[TURN]	9107	81	[BEGIN]**	3353
32	[WIND]	8419	82	[JUMP]	3341
33	[LINE]	8148	83	[SPEED]	3265
34	[BREAK]	8103	84	[WARM]	3194
35	[TRY]**	7985	85	[CLIMB]*	3175
36	[BUILD]	7854	86	[LIFT]	3009
37	[WANT]**	7821	87	[SPEAK]*	2983
38	[SIT]	7691	88	[PUSH]	2977
39	[HANG]	7651	89	[STAY]*	2957
40	[START]	7421	90	[SCREW]	2946
41	[SIGN]	7135	91	[MESS]	2771
42	[BACK]	7099	92	[SHOOT]	2761
43	[BLOW]	6552	93	[PILE]	2460
44	[WALK]	6386	94	[REACH]*	2447
45	[STEP]	6333	95	[PACK]*	2363
46	[MOVE]	6067	96	[STIR]	2357
47	[SEE]**	5957	97	[MIX]	2345
48	[SHUT]	5912	98	[CLOSE]	2320
49	[RUN]	5520	99	[SPRING]*	2318
50	[ADD]*	5440	100	[CURL]	2273

My investigation does not include words like *grown-up* in which the initial element is a past participle. I also rule out words like *cleaning-up* in which the first element is –ing form. Nouns formed by “an infinitive verb + *up*” are quite numerous in number, compared with “–ing + *up*” nouns and “past participle + *up*” nouns. Out of five-hundred nouns ending with *up* that are the most frequent, as many as 201 nouns are formed by “an infinitive verb + *up*”, 36 are formed by “ing + *up*”, and only nine are formed by “a past participle + *up*.” The fact that both the number of nouns with a present participle and that of nouns with a past participle are small can be explained by the features of participles. According to Langacker (2013:121), past participles highlight the end of the verbal process, either the final participant or the final state (121). Therefore, if a noun includes a past participle as its constituent, the meaning the noun denotes is limited to the final stage of the action. The semantic specificity of a past participle might contribute to the small number of nouns formed by “a past participle + *up*.” A present participle denotes an action of continuous/indefinite duration without the beginning or the ending. Langacker (2013:120) states that the present participle “represents an internal portion of some longer process” and that “the beginning and the end of the verbal process lie outside of the immediate scope (ibid:120).” Similarly, Biese (1941: 311) says that an –ing form denotes a “continuous action or existence, or expressing a habit of practice of doing something.” The unboundedness of –ing forms seems incompatible with the fundamental nature of a noun: profiling a thing (Langacker 2015:58). It has probably led to the relatively smaller number of nouns formed by “–ing + *up*.”

Then why are nouns formed by “an infinitive verb + *up*” so numerous? I propose that there are two reasons. First, an infinitive verb used as a noun, in other words, a conversion noun, denotes a concrete/individual/distinctive action. According to Biese (1941:311), conversion nouns denote “acts of short or momentary duration, having definite beginning and end.” The boundedness of an infinitive verb seems compatible with the fundamental nature of a noun to profile a thing. Second, an infinitive verb sometimes shows nominal features as well as verbal features. This view is suggested by Bauer (2005) who states that “[i]nfinitives are traditionally recognized as a locus where the categories of noun and verb intersect (23)” She illustrates her argument with the examples of Old French infinitives which possess nominal features, maintaining verbal features³. The ambiguous nature of infinitives might

³ Here are some of the examples given in Bauer (2010: 23-24).

(1) *Car chanters estoit li mestiers qu'elle fessoit plus Volentiers*

For sing.INF.NOM.SG was the task.NOM.SG which she carried out most willingly.

(2) *Jusqu'au mien partir*

until the mine leave.INF

(3) *Son sagement parler*

his wisely speak.INF

The infinitives in (1) and (2) show nominal features; *chanters* in (1) is used in the plural and *partir* in (2) takes the determiner *mien*. *Parler* in (3) not only possesses a nominal feature because it takes the determiner *son*, but retains a verbal feature because it is modified by the adverb *sagement*.

contribute to the fact that there are a large number of nouns formed by “an infinitive verb + *up*”.

4. Analysis

4.1. What VPCs are likely to nominalize

It is not the case that all the *up*-VPCs can nominalize; the *up*-VPCs such as *come up*, *go up*, and *keep up* do not convert into nouns, even though they are frequently used as verbs. There is a feature common to *up*-VPCs that can nominalize.

4.1.1. The properties of the VPCs that nominalize

Most of the *up*-VPCs that can convert into nouns indicate affectedness. If a predicate indicates affectedness, its object NP is influenced or affected by the action denoted by the predicate. Whether an *up*-VPC indicates affectedness or not can be judged by the ‘What X did to Y’ test. This test is often employed as a diagnostic for affectedness as well as for identifying the force recipient of a predicate (Iwata 2004: 255, 274). In the sentences below, while 1(a) is grammatical, 1(b) is not; hence the verb *enter* does not indicate affectedness.

1(a) He entered the room.

(b) *What he did to the room was enter it.

I conducted the same ‘What X did to Y’ test to find out whether *up*-VPCs that can nominalize indicate affectedness. The sentences two through twenty-one are part of the informant test that I conducted. I created sentences with *up*-VPCs and had native speakers of English judge whether the sentences were grammatical or not by choosing the number from 1 to 4. The sentences judged 1 are “understandable and natural” and are written without any markers in this thesis. The sentences judged 2 are “understandable but not natural” and are written with “?”. The sentences judged 3 are “not very understandable and unnatural” and are written with “??”. The sentences judged 4 are “not understandable and unnatural” and are written with *.

Among twenty-four *up*-VPCs that nominalize, fourteen were judged 1, nine were judged 2 and one was judged 3.

2. beat up (VPC) ⇔ beatup (VPN)

(a) Her boyfriend beat her up.

(b) What her boyfriend did to her was beat her up.

3. blow up (VPC) ⇔ blowup (VPN)

(a) Rebels blew up the palace.

(b) What rebels did to the palace was blow it up.

4. line up (VPC) ⇔ lineup (VPN)

- (a) The emcee lined up the audience.
 - (b) What the emcee did to the audience was line them up.
5. match up (VPC) \Leftrightarrow matchup (VPN)
- (a) We matched up the players to particular opponents on basis of height, speed and other characteristics.
 - (b) What we did to the players was match them up to particular opponents on basis of height, speed and other characteristics.
6. sign up (VPC) \Leftrightarrow signup (VPN)
- (a) The organization signed up the researchers for the project.
 - (b) What the organization did to the researchers was sign them up for the project.
7. catch up (VPC) \Leftrightarrow catchup (VPN)
- (a) That country caught up with the UK in technology.
 - (b) What that country did to the UK was catch up with it in technology.
8. wind up (VPC) \Leftrightarrow windup (VPN)
- (a) The new president wound up the company in Jamaica.
 - (b) What the new president did to the company in Jamaica was wind it up.
9. break up (VPC) \Leftrightarrow breakup (VPN)
- (a) The government soldiers broke up the demonstration.
 - (b) What the government soldiers did to the demonstration was break it up.

The sentence 2(b), including the *up*-VPC *beat up* which can convert into the noun *beatup*, is judged to be grammatical; hence the *up*-VPC *beat up* indicates affectedness. The same is true of (3b) – (9b). It can be deduced from these results that *up*-VPCs that can convert into nouns indicate affectedness.

4.1.2. The properties of the VPCs that do not nominalize

The *up*-VPCs that do not nominalize possess the property opposite to that of the *up*-VPCs that nominalize. Many of the *up*-VPCs that do not nominalize are used only intransitively: *come up*, *grow up*, *go up*, *rise up*, *speak up*, *stay up* and *spring up*. The observation that intransitive *up*-VPCs do not nominalize is consistent with the view proposed in the previous section: *up*-VPCs that indicate affectedness tend to nominalize. It is because the action denoted by an intransitive *up*-VPC does not have an object NP, and thus does not indicate affectedness. The other *up*-VPCs are transitive, but do not indicate affectedness. This proposition is substantiated by ‘What X did to Y’ test introduced in the previous section.

10. keep up (VPC) \Leftrightarrow *keepup (VPN)
- (a) NATO kept up the pressure on the Serbs.
 - (b) ??What NATO did to the pressure on the Serbs was keep it up.

11. bring up (VPC) \Leftrightarrow *bringup (VPN)
 (a) The chairperson brought up the subject of money.
 (b) ??What the chairperson did to the subject of money was to bring it up.
12. climb up (VPC) \Leftrightarrow *climbup (VPN)
 (a) Tim climbed up that tall building.
 (b) ??What Tim did to that tall building was climb it up.
13. reach up (VPC) \Leftrightarrow *reachup (VPN)
 (a) She reached her face up.
 (b) ??What she did to her face was reach it up.

As the sentences (10b) – (13b) show, when the non-nominalizing *up*-VPCs are inserted, the resulting sentences are judged to be ungrammatical or unnatural. It leads to the conclusion that these *up*-VPCs do not connote that the object is affected by the predicate action, in other words, these *up*-VPCs do not indicate affectedness. Among the nine *up*-VPCs that do not nominalize, seven were judged 3 and two (*pack up* and *add up*) were judged 2. This result shows that the *up*-VPCs *pack up* and *add up* indicate affectedness. Although COCA does not have the examples of *up*-VPNs *packup* and *addup*, I have recently acquired the examples of these two *up*-VPNs⁴. Therefore, this research result is consistent with the proposition made in this section: *up*-VPCs that indicate affectedness tend to nominalize.

The *up*-VPCs *think up* and *draw up* (to prepare a written document) do not nominalize either. However, they cannot be explained by the reasoning mentioned above. Both of the *up*-VPCs are not only transitive predicates but indicate affectedness as shown below.

16. (a) They drew up the contract.
 (b) What they did to the contract was draw it up.

What is distinct about these two *up*-VPCs is that they are both creation verbs and thus take effected objects. According to Fillmore 1968, there are two kinds of object NPs which differ semantically.

⁴ Below are the examples of *addup* and *packup*.

(i) More specifically, every component, and features within those components of the valve 20, has dimensions and tolerances to ensure a proper fit between the components of the valve 20. Nonetheless, even though all of the dimension and tolerances may be adhered to during the manufacturing processes of the different components, the **addup** or stack up of tolerances, may create a misalignment or situation, whereby proper operation of the valve 20 may be prevented. (Canadian patent no. 2604947)

(ii) Under the traditional delivery model, instituted by shippers, a user, instead of requesting a package to be shipped to the user's home or office, may request the package to be delivered to a shipper's office the user selected. The user then arranges for a recipient (if not the user himself) to go to the carrier's office to pick the **packup** up. (US patent application publication no. 0153370)

17. (a) John ruined the table.
 (b) John built the table.

The object NP *the table* in (17a) is interpreted as existing antecedently to John's ruining, whereas the existence of *the table* in (17b) results from the activity of John's building. The former object is called "affected object" and the latter, "effected object." (Fillmore 1968:4; Kogusuri 2009:39) Therefore, the object NPs of creation verbs such as *build* and *make* are effected objects. On the other hand, the objects of transitive verbs indicating change-of-state such as *ruin* and *break* are affected objects. While many affected objects can occupy the subject position of a middle construction, effected objects in general are not allowed to appear in this position (Kogusuri 2009:40).

18. (a) This bread cuts easily.
 (b) *These cabinets build easily.

In (18a), *this bread* denotes the entity which exists prior to the activity of cutting; hence it is an affected object. On the other hand, the object *these cabinets* in (18b) are produced by the activity denoted by the verb, and therefore, are an effected object. The ungrammaticality of the latter example shows that the subject of a middle construction must be an affected entity; the middle subject must exist prior to the activity encoded by the verb (Kogusuri 2009:40). The same holds true of the sentences using VPCs.

19. break up (VPC) \Leftrightarrow breakup (VPN)
 (a) The government soldiers broke up demonstrations.
 (b) Demonstrations break up easily.
20. draw up (VPC) \Leftrightarrow *drawup (VPN)
 (a) They drew up the contract.
 (b) *The contract draws up easily.
21. think up (VPC) \Leftrightarrow *thinkup (VPN)
 (a) She thought up these excuses.
 (b) * These excuses think up easily.

As shown in (19b), *demonstrations*, corresponding to the object of *break up*, can occupy the middle subject. Therefore, it is an affected entity. The ungrammaticality of (20b) and (21b), in contrast, shows that the subjects *the contract* (20b) and *these excuses* (21b) are effected entities. From this result, it is deduced that the two *up*-VPCs *draw up* and *think up* are creation verbs. It has yet to be clarified why *up*-VPCs denoting creation cannot nominalize.

However, the fact that creation verbs have a different property from other transitive verbs may have something to do with the impossibility of nominalization.

4.1.3. Interim summary

To sum up the last two sections, *up*-VPCs that indicate affectedness (except for creation verbs) tend to convert into nouns, whereas intransitive *up*-VPCs and transitive *up*-VPCs that do not indicate affectedness are unlikely to nominalize. As an evidence for this proposition, the definition of the *up*-VPN *cutup* and that of the corresponding *up*-VPC *cut up* deserve attention.

cutup (VPN) : someone who makes other people laugh by doing amusing things, especially in a situation where they should not do this (Longman); a person who behaves in a silly way in order to attract attention and make people laugh (Oxford Advanced Learner's Dictionary)

cut up (VPC) : to behave in a noisy and silly way (oald); to behave in a noisy or rude way (Longman)

The *up*-VPC *cut up* is an intransitive verb meaning to behave in a silly way. The *up*-VPN *cutup* means someone who makes other people laugh by behaving in a silly way. This definition of *cutup* implies that the object NP is influenced or affected by the action of *cutting up* in that s/he is made to laugh. Therefore, the *up*-VPN gains the semantic feature of affectedness or change-of-state which is absent from the base *up*-VPC. This corroborates the view that an *up*-VPC necessarily denotes affectedness or change-of-state of the object when converting into an *up*-VPN.

However, several *up*-VPNs that came into existence relatively recently do not comply with this tendency. Such exceptional *up*-VPNs include *popup* (1985) 'a window that suddenly appears on a computer screen', *standup* (1958) 'a comedian standing up', *leadup* (1953) 'something that leads up to something else', *crackup* (1961) 'an amusing person or thing'. Since their base *up*-VPCs are intransitive verbs, they do not indicate affectedness. There is a feature, however, that is common to almost all the *up*-VPNs investigated, which would be detailed in the next section.

4.2. Semantics of *up*-VPNs

4.2.1. Schematic meaning of *up*-VPN

Although the previous studies emphasize the polysemy of VPNS, the semantics of *up*-VPNs investigated can roughly be classified into the three categories shown below.

(1) 'To do the action denoted by the base *up*-VPC' (sense of action)

- (2) ‘A person/thing that does the action denoted by the base *up*-VPC’ (sense of agent/instrument/cause)
- (3) ‘A person/thing that is acted upon by, or involved in the action denoted by the base *up*-VPC’ (sense of patient)

The first category is to do the action denoted by the base *up*-VPC, in other words, the sense of action. For instance, *coverup* is defined as an attempt to prevent the public from discovering the truth about something. Therefore, *coverup* denotes the action to *cover up*. The second category is a person/thing that does the action denoted by the base *up*-VPC. For instance, *popup* is a window that suddenly appears on a computer screen, so it is a window that *pops up*. The third category is a person/thing that is acted upon by, or involved in the action denoted by the base *up*-VPC. In short, it is the sense of patient. For example, a *blowup* is a picture made larger, thus it denotes a picture that was *blown up*. Of these three semantic categories, the most frequent is the first meaning, or the sense of action. It is quite natural because *up*-VPNs are derived from verbal compounds. In contrast, very few *up*-VPNs denote the third patient sense, except for *pinup*, *blowup* and *lineup* etc. What is crucial is that many of the *up*-VPNs investigated possess the second sense. The second sense or “a person/thing that does the action denoted by the base *up*-VPC” is used here as a general notion that encompasses any entity that can be interpreted, either literally or metaphorically, as conducting the action of the base *up*-VPC. It is meant to encompass not only the semantic role of Agent but also Cause and Instrument.

The reason to regard semantic roles such as Agent, Instrument, Cause as belonging to a single semantic category is the polysemy of the deverbal nouns ending with *-er* including *baker*, *writer*, and *smoker* (Booij 2010:77-79). These nouns prototypically denote the Agent role of the base verb, but actually have a range of interpretations including non-animate agent, instrument, and cause. It is because not only animate agents but also inanimate agents can function as subjects of verbs: a movie can thrill people, and therefore can be referred to as a *thriller*; a *container* is an entity that contains something. Instruments such as *scraper* and *printer* can be interpreted as personified agents because we can metaphorically conceive of devices that are able to perform certain actions as agents. Therefore, our metaphorical interpretation has driven the semantic expansion of *-er* nouns.

The list below shows all the *up*-VPNs that possess the agent/instrument/cause sense. I will explain the semantics of these *up*-VPNs in detail.

makeup: people that MAKES UP a group
 backup: something that can be used to replace something that does not work or is lost
 ≐ a person/thing/file that supports or BACKS UP the original
 pickup: a truck that PICKS UP loads
 setup: ‘a plan to make somebody innocent seem guilty’
 ≐ a plan that SETS UP somebody
 cleanup: a batter that CLEANS UP runners on bases
 followup: an action that FOLLOWS UP the previous one
 startup: a company that STARTS UP
 warmup: a gentle exercise that WARMS UP your body
 hangup: an emotional problem that makes you embarrassed or worried
 cutup: a person who behaves in a silly way in order to attract attention and make people laugh
 crackup: ‘an amusing person or thing’
 ≐ a thing that CRACKS UP somebody
 frameup: ‘a plan to make somebody innocent seem guilty’
 ≐ a plan that FRAMES UP somebody
 popup (window): a window that POPS UP
 standup (comedian): a comedian that STANDS UP
 windup: an action that WINDS UP something
 holdup: ‘delay’
 ≐ a situation that HOLDS UP something
 fuckup: ‘blunderer’
 ≐ a person that FUCKS UP
 stickup: ‘robber’
 ≐ a person that STICKS UP
 lookup: a function that enables to LOOK UP something
 suckup: ‘sycophant’
 ≐ a person that SUCKS UP
 wakeup (call): a call that WAKES you UP
 leadup: the things that are done in the time before an important event; something that LEADS UP to something else
 fillup: that which serves to FILL UP a hollow or stop a gap

Makeup is mainly used in the two meanings: the combination of people or things that constitute a group; colored substance put on one’s face to improve their appearance. *Makeup* in the first sense is people or things that *make up* a group, thus can be interpreted as the entity that conducts the action denoted by the base *up*-VPC *make up*. The same is true of the second sense, because *makeup*, or cosmetics, is the instrument that one employs to *make up* somebody’s face, thus it can be interpreted as the thing that metaphorically conducts the action of the base *up*-VPC. Even though the two senses of *makeup* (i.e. the sense of cosmetics and the sense of group members) seem unlike, they are actually consistent with each other in that both of them correspond to “the person/thing that conducts the action of the base *up*-VPC.” *Backup* means people or things used to provide support if they are needed, thus denoting a person/thing that supports, or *backs up* others. One of the meanings of *setup* is a plan to make somebody innocent seem guilty. Since its base *up*-VPC *set up* means to deceive somebody innocent to make them guilty, the *up*-VPN *setup* is equivalent to a plan that *sets* somebody *up*. The same is true of the *up*-VPN *frameup*, which is defined in Longman Dictionary of Contemporary English as the synonym for *setup*. Hence, both *setup* and

frameup can be interpreted as a thing that conducts the action denoted by the base *up*-VPC. *Cleanup*, when used in baseball, means the fourth position in a team's batting order whose hits are likely to enable any runner on a base to score; hence the *up*-VPN *cleanup* denotes a person that *cleans up* the bases. *Followup* is an additional action that will be subsequently conducted to make the previous action more effective and successful. So if you follow up a letter with a visit, for instance, "a visit" semantically corresponds to *followup*. Since "a visit (i.e. *followup*)" occurs after *with*, its semantic role is Instrument. Therefore, *followup* can be regarded as a quasi-agent which helps carry out the action denoted by the predicate. *Warmup* is a set of gentle exercise to prepare your body for sports; hence it is an exercise that *warms up* someone's body. According to OED, the *up*-VPN *crackup* has acquired the meaning "a cause for hilarity, or an amusing person or thing" since 1961. Considering that the base *up*-VPC *crack up* means to make somebody laugh a lot, the *up*-VPN *crackup* is equivalent to the person or thing that *cracks* somebody *up*, denoting the person/thing that does the action of the base *up*-VPC. According to Longman, the *up*-VPN *windup* has the following two meanings: an action or a remark that makes somebody angry or worried; a series of actions intended to complete a process. These two meanings correspond to the following two senses of the base *up*-VPC *wind up*: to deliberately say or do something that will annoy or worry somebody; to bring an activity to an end. Therefore, the *up*-VPN *windup* denotes an action or remark that *winds up* someone/something. Similarly, *holdup* is a situation that stops something from happening or making progress, thus it denotes the cause that *holds up* something. *Lookup* is the action or process of *looking* something *up* in a dictionary or a book, etc. This *up*-VPN, as a computer term, can also mean a function that enables this. Judging from the fact that *lookup* means a function that *looks* something *up*, *lookup* corresponds to an entity that conducts the action denoted by the base *up*-VPC. *Standup*, *stickup*, *fuckup*, and *suckup* all denote a person. *Standup* is a comedian that *stands up*; *stickup* is a person that robs, or *sticks up*; *suckup* is a sycophant, thus a person that *sucks up*; *fuckup* is a person that often makes mistakes or *fucks up*.

Out of one-hundred *up*-VPNs that are used most frequently, as many as twenty-four *up*-VPNs possess the second sense: a person/thing that conducts the action denoted by the base *up*-VPC. This semantic characteristic seems peculiar to *up*-VPNs for the following two reasons.

Firstly, the studies of conversion nouns do not state that the nouns converted from verbs tend to denote the subject of the base verb. The studies of conversion classify the nouns converted from verbs according to the semantic/syntactic relationships with their base verbs. Marchand (1979:373-379) and Martsa (2013:174-178) distinguish the following four categories: a) the predication type (an instance of the action denoted by the base verb, e.g. a *kick*); b) the object type (the object/result/target of the action expressed by the base verb, e.g. a *read*); c) the subject type (the human or non-human subject doing or experiencing the action/state expressed by the base verb, e.g. a *cook*); d) the adverbial complement type (the

place or time of the action, e.g. a *hideout*). Martsa (2013) states that the most numerous and diverse is the first category, or the predication type (174). Similarly, according to Lieber (2010), while the verbs converted from nouns denote a wide range of meanings, the meanings of nouns converted from verbs are usually more predictable; “when we turn a verb into a noun, the result usually means something like ‘an instance of X-ing’, where X is the denotation of the verb. (49-50)”

Secondly, as compared with *up*-VPNs, most VPNs with *down* possess the first sense, thus denoting the action of the base VPC. Out of one-hundred *down*-VPNs that are the most frequent⁵, there are only six *down*-VPNs that possess the sense of agent/instrument/cause: *letdown*, *pulldown*, *putdown*, *tiedown*, *dropdown*, *holddown*⁶.

The two reasons mentioned above suggest that it is the characteristic of *up*-VPNs that they are likely to correspond to the subject of the base *up*-VPCs.

One might ask, “When a new lexeme denotes the subject of the base *up*-VPC, why not use the suffix –er? And are there any differences between conversion nouns (i.e. *up*-VPNs) and –er nouns?” The reason why the suffix –er is less likely to be used in the derived nouns is that it is difficult to form –er nouns from VPCs, as pointed out by Bauer (1983:288-289). Bauer (1983) says that there are five competing patterns: a) verb with –er + particle (e.g. *dropper-in*); b) verb + particle with –er (e.g. *come-outer*); c) particle + verb with –er (e.g. *on-looker*); d) verb with –er + particle with –er (e.g. *breaker-inner*); e) verb with –er (e.g. *waiter*). Of these patterns, the first and the fourth tend to feel clumsy, and thus are likely to be used in colloquial speech; the second is rare because the suffix seems to be added in the wrong place; the third and the fifth seem to lose the connection with the verb + particle unit. Because of the awkwardness and unsteadiness resulting from the five competing patterns, some of which seem disconnected with the base VPC, conversion is preferred to –er suffixation in nominalization of VPCs.

The fact that there are a number of *up*-VPNs denoting a person/thing that conducts the action of the base *up*-VPC has led to the proposition that there exists a schema formulated as follows:

[[X]_v up]_N ‘a person/thing that does the action denoted by the base *up*-VPC’

⁵ These *down*-VPNs are also collected from COCA.

⁶ *Letdown* is defined as an event, performance etc. that is not as good as you expected it to be, thus denoting the thing that *lets* somebody *down*; *pulldown*, when speaking of a pipe organ, can be used to denote a wire which *pulls down* a pallet or valve when a key is pressed, thus letting the air into a pipe; *putdown* is something you say that is intended to make somebody feel stupid or unimportant, thus is equal to the thing that *puts* somebody *down*; *tiedown* is defined in OED as a device to or with which something may be *tied down*; *dropdown menu* is a list of choices which appear on a computer screen when you click on a place on the screen, and denotes things that *drop down*; *holddown* is a device to prevent material or apparatus from shifting or shaking, and denotes a thing that *holds down* something.

The sign above is meant to denote a noun formed by an infinitive verb plus *up* is paired with the semantics ‘a person/thing that does the action denoted by the base *up*-VPC.’ The existence of such schema indicates the great likelihood that more and more nouns which are formed by an infinitive verb plus *up*, and possess the agent/instrument/cause sense will come into existence. The productivity of a schema depends on its type frequency (Bybee 1995: 430). To put it another way, the more members that instantiate a morphological pattern there are, the more likely the pattern is to be extended to new items. Applying this proposition made by Bybee to my research, it is possible to hypothesize that since there are numerous *up*-VPNs which denote the sense of agent/instrument/cause, the form “an infinitive verb + *up*” paired with the semantics ‘a person/thing that conducts the action denoted by the base *up*-VPC’ is becoming a productive pattern. The following sections give the ground for this proposition.

4.2.2. The reason to propose the existence of the $[[X]_v \text{ up}]_N$ ‘a person/thing that does the action denoted by the base *up*-VPC’ schema

The existence of the schema $[[X]_v \text{ up}]_N$ ‘a person/thing that does the action denoted by the base *up*-VPC’ is substantiated by the fact that there are newly created nouns that possess the same formal and semantic features as *up*-VPNs already existing. The three nouns that I have found (*click-up*, *Kleen-up* and *PostUp*) are similar to existing *up*-VPNs in that they are formed by an infinitive verb plus *up* and that they denote an entity that can be interpreted as conducting the action expressed by the constituent verb. Since these three nouns have come into existence quite recently, they are not listed even in large dictionaries. One of them *click-up* is a device used in sports climbing as explained in the passage below.

Gentle rope belay device for sport climbing with brilliant handling and semi-automatic locking function for increased safety! Handling and inserting the rope works like the classic Tubern. In the event of a fall you can hear a clear click sound, indicating that the blocking function acoustically. (<http://ur0.pw/AldU>)

Click-up is used to fasten your body to a rock by inserting a rope into it, and makes a click sound when locking the rope; hence *click-up* denotes a thing that *clicks*. Note that the noun possesses neither the directional sense nor the completion sense which are often denoted by the particle *up*. In other words, the particle *up* makes no semantic contribution to the meaning of the whole word. The reason why *up* is used is exactly because there are numerous nouns formed by an infinitive verb plus *up*.

Another new *up*-VPN, *Kleen-up*, seems to mean a kind of weed-killer, judging from the surrounding context. The passage below is from COCA.

... this is the weed commonly sprouting in the cracks of sidewalks and driveways, along borders of the garden where there is considerable reflected heat. Because it often sprouts near good grass and healthy plants, care must be exercised in getting rid of it. # For spot treatments, mix a 50-50 solution of liquid concentrate Kleenup and water, and paint the solution on the foliage in the evening when no rain is forecast; one application kills the weed.

Even though the verb *kleen* does not exist, taking into consideration that *kleen-up* is a chemical that make your plants *green up* by *cleaning up* weeds, it might be the blend of *greenup* and *cleanup*. Since the noun *kleen-up* denotes a thing that *kleens* (i.e. *cleans*) *up* weeds, it corresponds to the instrument that conducts the action denoted by the constituent predicate.

The other new *up*-VPN *PostUp* is an email service provider founded in 1996. The company introduces itself in its official website as follows:

PostUp's email marketing platform is designed to help brands communicate with their customers. An Email Service Provider with a proven services team, an award-winning platform, and handpicked partners, PostUp delivers personalized communications that drive engagement and increase revenues. (<https://www.postup.com/top-email-service-provider>)

And the profile of *PostUp* on twitter says that the company “delivers email, mobile and social solutions.” According to OED, *post (up)* means “to make known, advertise, or bring before the public (a fact, thing, or person) by or as by putting up a placard or notice” or “to send (a message or data) to a mailing list, newsgroup, or other online forum on which it will be displayed.” Therefore, the *up*-VPN *PostUp* is a company that *posts up* information and thus denotes an entity that conducts the action of the constituent verb.

In summary, *Kleen-up*, *click-up* and *PostUp* possess the form and meaning similar to those of the existing *up*-VPNs, because all of these nouns are formed by an infinitive verb and *up* and denote an entity that can be interpreted as conducting the action of the constituent predicate. Therefore, these new *up*-VPNs can be said to instantiate the schema $[[X]_v \text{ up}]_N$ ‘a person/thing that does the action denoted by the base *up*-VPC’. The schema is productive enough to create a new noun of the similar form and semantics.

4.2.3. The factor in the $[[X]_v \text{ up}]_N$ ‘a person/thing that does the action denoted by the base *up*-VPC’ schema

Why do *up*-VPNs tend to represent the agent/instrument/cause? This semantic feature has something to do with the property of the particle *up*. Otani (2015) seems to corroborate the proposition made above. Using the BNC corpus, Otani analyses three VPCs with *up* (i.e.

drink up, *burn up*, and *shoot up*) and three VPCs with *down* (*drink down*, *burn down*, and *shoot down*) and has revealed the syntactic and semantic difference between *up* and *down* used in VPCs. There are two points to be noted.

Firstly, when these VPCs appear as intransitive verbs, VPCs with *up* tend to be used unergatively as in (22a) or reflexively as in (22b), while VPCs with *down* are more likely to be used unaccusatively as in (22c).

- (22) a. They want customers to drink up, but wisely.
 b. He was burning up with fever.
 c. Third plane shot down in Georgia.

The subject of an unergative verb is prototypically an agent who intentionally conducts the action denoted by the verb. The subject “they” in (22a) is the agent of the predicate *drink up*. In the “reflexive” use as in (22b), the subject “he” can be either the agent (i.e. the person who burns) or the patient (i.e. the person who is burned). In (22c), the subject “third plane” is the patient of the predicate *shoot down* (i.e. the thing that is shot down) and thus the VPC *shoot down* is used as an unaccusative verb. The reason for this difference in distribution is that *down* profiles the resultant state of the patient.

Secondly, VPCs with *down* are more likely to appear in the passive voice than those with *up*. Since the passive voice is used to background the actor and foreground the patient, Otani argues that *down* is “patient-oriented.”

From the research conducted by Otani, it can be deduced that VPCs with *up* are more likely to profile the actor of the predicate, compared with those with *down*, which profile the patient. It would be reasonable to hypothesize that this agent-orientation of *up* influences the semantics of *up*-VPNs.

4.2.4. Interim summary

In 4.1 and 4.2, I have detailed the following two points: the feature of *up*-VPCs that nominalize and the semantic feature of *up*-VPNs. As to the first point, *up*-VPCs that indicate affectedness tend to convert into nouns. However, several *up*-VPNs such as *popup*, *crackup*, *standup* and *leadup*, do not comply with this tendency. In other words, these *up*-VPNs are converted from *up*-VPCs that do not indicate affectedness. Such exceptional *up*-VPNs were formed relatively recently, in the late twentieth century. However, there is a feature which is common to both *up*-VPNs converted from *up*-VPCs that indicate affectedness and those converted from *up*-VPCs that do not indicate affectedness; many of the *up*-VPNs denote a person/thing that does the action expressed by the base *up*-VPC.

4.3. Contextual features of VPNs

It has been frequently pointed out in the literature that VPNs often appear to duplicate the job of existing words. A *blowup* is an *explosion*. A *bribe* can also be referred to as *payoff*. The orderly *withdrawal* of troops is a *pullback* (Sørensen 1986:279). While VPNs are informal in style and are often combined with expressive connotations, simple nouns are stylistically more neutral and formal (Rathay 1991:167; Sørensen 1986:279). This section aims to argue that, in addition to this difference in register, there is a significant difference between *up*-VPNs and their synonyms of simple forms both in syntax and in semantics. Comparing synonymous pairs of *up*-VPNs and simple nouns suggests that *up*-VPNs are more likely to be modified and less likely to be used attributively than their simple-form synonyms.

4.3.1. Data and methods

I have contrasted the contexts of three pairs of synonymous nouns: *lockup* v. *prison*, *makeup* v. *cosmetics* and *holdup* v. *delay*. This research uses the data collected from COCA. I extracted all the examples of *lockup*, *prison*, *makeup*, *cosmetics*, *holdup*, and *delay* which are used as nouns. The number of instances of *lockup* is 400, that of *prison* 40,893, that of *makeup* 12,573, that of *cosmetics* 1,932, that of *holdup* 338, and that of *delay* 13,157. While I analyzed all the examples of *lockup* and *holdup*, for the other four nouns, I analyzed 500 examples each; these examples were selected using a random sampling method. I examined 2,738 instances in total by annotating them with the three features listed in Table 3⁷.

⁷ These features are based on the study done by Biese. Biese (1941: 285-305) analyzes the contexts in which conversion nouns tend to appear. According to him, there are mainly three contexts in which nouns converted from verbs tend to appear for the first time: a) after an article or an adjectival word; b) after a preposition; or c) after a light verb. "Supposedly, newly created nouns tend to occur in these environments because a word which appears after an article, an adjective, a preposition or a light verb is unambiguously judged to be a noun. In contrast, conversion nouns are less likely to be used alone. In other words, there are few cases where conversion nouns are used without being preceded by modifiers. In addition, the number of cases where conversion nouns occur as the subject of a sentence is very limited. It is reasonable to deduce that analyzing the modification and the grammatical role would contribute to clarifying the syntactic and semantic features of *up*-VPNs and their synonymous nouns.

Table 3: List of features

(A)	Adjectival use	
	e.g. Behind Gilkey, slumped on the bench of the lockup cell, was a frail-looking figure.	
(B)	Grammatical role	
	(a) Subject	e.g. Some 50 years later, Charles Dickens visited the city's lockups , ...
	(b) Object	e.g. Communication errors causing system lockup ...
	(c) Complement	e.g. It's not the lockup or the food or the people you're incarcerated with ...
	(d) Prepositional phrase	e.g. ... at age 18, Kenny found himself in the adult lockup .
(C)	Modification ⁸	
	(a) No modifier	e.g. ... after two months in lockup , the high-spirited girl was gone.
	(b) With a determiner	e.g. If not, these ladies are going back into <u>the</u> lockup , ...
	(c) With an adjective or a noun	e.g. Mostly the lower-level offenders go to <u>county</u> lockups ...
	(d) Modified by more than two words	e.g. We used to sit chained and shackled in <u>the courthouse</u> lockup until 10...

4.3.2 Results of research

Table 4 below shows the results of Feature (A); it shows the number of instances of *lockup* and *prison* which modify the following noun, thus functioning like attributive adjectives.

Table 4: *Lockup* and *prison* in adjectival use

	The number of occurrences	Total
<i>lockup</i>	15 (4.67%)	321 (100%) ⁹
<i>prison</i>	150 (29.13%)	515 (100%) ¹⁰

From the figures in Table 4, it can be said that the simple noun *prison* is more likely to be used attributively than the *up*-VPN *lockup*. *Prison* is often followed by a noun to form phrases such as *prison population*, *prison guard*, *prison term*, *prison break*, *prison sentence*, *prison life*, etc. Among these noun phrases, *prison term* and *prison sentence* are used quite frequently, so that they are probably conventionalized enough to become fixed expressions.

⁸ This research focuses only on premodifiers, but not on postmodifiers because the analysis done by Biese does not take account of postmodification.

⁹ This is the number of instances of *lockup* which means 'prison.' The number of instances of *lockup* which does not mean 'prison' is excluded.

¹⁰ I randomly selected 500 sentences with *prison* from COCA. The actual number of instances of *prison* is 515 because there are some cases in which *prison* is used more than once in a sentence.

Next, I will focus on the results of Feature (B). Table 5 shows the position within a sentence in which *lockup* and *prison* are likely to appear. Both are most likely to appear in a prepositional phrase.

Table 5: Grammatical role of *lockup* and *prison*

	(a) Subject	(b) Object	(c) Complement	(d) prepositional phrase	Total
<i>lockup</i>	19 (5.91%)	32 (9.96%)	10 (3.11%)	222 (69.16%)	321 (100%)
<i>prison</i>	20 (3.88%)	21 (4.07%)	7 (1.35%)	310 (60.19%)	515 (100%)

What follows is the difference between *lockup* and *prison* in their modifiers. Table 6 below is the result of Feature (C). As shown in Table 6, the two synonymous nouns exhibit an obvious difference.

Table 6: Modification of *lockup* and *prison*

	(a) No modifier	(b) with a determiner	(c) with an adjective or a noun	(d) modified by more than two words	Total
<i>lockup</i>	68 (21.18%)	76 (23.68%)	66 (20.56%)	99 (30.84%)	321 (100%)
<i>prison</i>	219 (42.52%)	49 (9.51%)	37 (7.18%)	63 (12.23 %)	515 (100%)

The percentage of *prison* without any modifiers is much higher than that of *lockup* without modifiers. When *prison* is used without any modifiers, it is most likely to be preceded by a preposition, forming phrases such as *in prison*, *go to prison*, *send somebody to prison*, *out of prison*, *release from prison*, etc. On the other hand, the percentage of *lockup* with modifiers (i.e. (b), (c) and (d)) is much higher than that of *prison* with modifiers.

The similar differences are found in the other synonymous pairs: *makeup* v. *cosmetics* and *holdup* v. *delay*. I will confine myself to introducing the research results briefly due to want of space.

The percentage of *cosmetics* that modifies the following noun and thus is used like an attributive adjective (30.14%) is higher than that of *makeup* used like an adjective (22.72%). Concerning the difference in modification, the percentage of *cosmetics* without any premodifiers (40.12%) is slightly higher than that of *makeup* without premodifiers (36.53%). *Makeup*, in contrast, tends to be preceded by modifiers such as articles and other adjectival words. The total percentage of *makeup* with premodifiers (41.69%) is higher than that of *cosmetics* with premodifiers (31.7%).

As for *holdup* and *delay*, the percentage of *delay* used attributively (5.47%) is higher than that of *holdup* used attributively (2.42%). Concerning the modification, the percentage of *delay* without premodifiers (27.17%) is higher than that of *holdup* without premodifiers (7.27%). The total percentage of *holdup* with premodifiers (91.51%) is far higher than that of *delay* with premodifiers (67.61%).

Considering these research results corroborates the proposition made in this section that *up*-VPNs are more likely to be modified but less likely to modify the following noun.

4.3.3. Summary and factors underlying the differences

Even though I could not find any consistent differences in grammatical roles, analyzing contexts of *up*-VPNs and their synonymous nouns has exhibited obvious differences in the following two aspects: (1) adjectival use and (2) modification. Firstly, the simple nouns are more likely to modify the following noun(s), thus functioning similarly to an attributive adjective. The *up*-VPNs, in contrast, are less likely to be used attributively than their simple form synonyms. Secondly, the frequency of the simple nouns without modifiers is higher than that of the *up*-VPNs without modifiers. The other side of the coin is that the frequency of the *up*-VPNs with modifiers is higher than that of the simple nouns with modifiers. To put it another way, while the simple nouns are more likely to stand alone without being modified, the *up*-VPNs are more likely to be modified by the preceding article or the adjectival word(s). These research results suggest that simple form nouns, which are often used without modifiers and modify the following noun(s), are becoming adjective-like, as compared with *up*-VPNs which are often accompanied by modifiers.

What has brought about these differences? I propose that they can be explained by the difference between *up*-VPNs and simple nouns in the degree of entrenchment as nouns.

The fact that simple nouns tend to be used attributively is related to the tendency in present-day English for more and more nouns to convert into adjectives (Nakao 2003). The examples given by Nakao (2003) include *ten five-dollar bills*, *arms talk*, *a new major roads policy*, *the highest quality wines*, *a fun time*, etc., in which *five-dollar*, *arms*, *roads*, *quality* and *fun* function as adjectives. When these words, which are converted from nouns, are used as adjectives frequently enough to become conventionalized as such, they may come to be used predicatively as in *He was so much fun to be with* (Nakao 2003: 32). Then, why are simple nouns more likely to function attributively than *up*-VPNs? It is probably because simple nouns are more conventionalized as nouns than *up*-VPNs. That is to say, we would be able to perceive simple forms such as *prison* as nouns much more easily than *up*-VPNs such as *lockup*. *Up*-VPNs are somewhat ambiguous in terms of word class because they are derived from verbal compounds (i.e. *up*-VPCs), which have the same constituent words as, and are usually coexisting with, the corresponding *up*-VPNs. Therefore, simple nouns, which are fully conventionalized as nouns, are more likely to undergo a further functional change.

The difference between *up*-VPNs and simple nouns in modification can also be accounted for by the difference in the degree of conventionalization as nouns. A modifier can function to determine the part of speech of the word it modifies. If a word is preceded by *the*, it is unambiguously judged to be a noun. Therefore, modifiers attached to *up*-VPNs or simple nouns have the function to show that the modified words are apparently nouns. Simple nouns, which are firmly established as nouns and thus are readily perceived as such, do not need modification to specify its part of speech. On the other hand, *up*-VPNs might be confused with the *up*-VPCs which they are derived from, and thus are less conventionalized as nouns than simple form nouns. As a result, *up*-VPNs need modifiers in order to show clearly that they are nouns.

In summary, the analysis of the contexts of *up*-VPNs and their synonymous simple nouns suggests that *up*-VPNs are frequently preceded by adjectival words to clearly show that they are nouns. *Up*-VPNs are in the process of becoming conventionalized as nouns. In contrast, synonymous simple nouns are already fully conventionalized as nouns, so that they are often used without being modified or modify the following word. Therefore, simple nouns are acquiring adjective-like functions.

5. Conclusion

This research aims to investigate verb-particle nouns (VPNs), which are converted from verb-particle constructions (VPCs), focusing on VPNs with the particle *up*. The following three findings are proposed.

Firstly, whether or not an *up*-VPC is likely to nominalize depends on affectedness. If an *up*-VPC denotes affectedness, in other words, indicates that the object NP is influenced by the action denoted by the VPC, it is likely to convert into a noun, yielding an *up*-VPN.

Secondly, even though different *up*-VPNs possess various different meanings, these meanings can be schematically grouped into three categories: (1) to do the action denoted by the base *up*-VPC; (2) a person/thing that does the action denoted by the base *up*-VPC; and (3) a person/thing that is acted upon by, or involved in the action denoted by the base *up*-VPC. The crucial point is that many *up*-VPNs denote the second sense. The fact that there are many *up*-VPNs with this sense of agent/instrument/cause suggests that there exists a schema $[[X]_v \text{ up}]_N$ ‘a person/thing that does the action denoted by the base *up*-VPC.’ It is probable that new nouns formed by an infinitive verb plus *up* has been created by instantiating this schema. The semantic feature of *up*-VPNs is related to the feature of *up*, which tends to profile the agent rather than the patient of the predicate action.

Thirdly, *up*-VPNs are different from their synonymous simple nouns in two respects. First, *up*-VPNs are less likely to be used attributively than their synonymous simple nouns. Second, *up*-VPNs are more likely to be modified by the preceding article or the adjectival word(s) and are less likely to be used solely without being modified than their simple form synonyms.

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