NOTES ON THE TRANSFORMATIONAL ANALYSIS OF PHRASAL VERB STRUCTURES IN CONTEMPORARY ENGLISH

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The free forms consisting of at least two lesser free forms, one of which is a verb and the other a locative particle, offer us a wide scope for analysis. Arising from 10 basic kernel strings, we can classify more than 150 distinct transforms corresponding to one or more of the 10 strings. This output is the result of having applied a very limited set of equally basic transformations.

It is our purpose to point out only some aspects of the capacity of individual strings and their interrelations in terms of transformational analysis. We have deliberately illustrated the kernel strings with rather extensive structures. It should be clear from the very outset that not all the structures sharing the same type of sequence or even the same type of colligation with any of the kernel strings, are necessarily open to all the transformations that we have assigned to each string. Nevertheless, our kernel sentences are fairly representative of the structures of the language.

In the course of our analysis we have distinguished three main classes of verbs, V_{intr} (intransitive) -the boy *came up*-, V_{tr} (transitive) -the girl *brought in* the pram-, v_d (auxiliary in non-progressive active interrogative clauses) -what book *did* the pupil *give* the teacher *back*?-, v (auxiliary component of a passive construction when the sequence is a discontinuous one) -what box *was* the ring *put in*?-, and two basic classes of locative particles, Prt_a (with the character of directional "goal-value") as in the first three instances, and Prt_p (a mere connector between verb and object) as in the last instance given -the maid *put* the ring *in* the box-. We may have three different classes of objects whether in connexion with an element of the class "Prt_p" or not: O (non-relative object) *-the baby* the granny *looked after*-, (R) (optional relative object) -the ring (*which/that*) the maid *put in* the box-, I+O (interrogative composite object, consisting of an element of the class of "pronouns" and another element of the class of "nouns" *-what paper* did the student *hand to* the invigilator?-, OS (optional agentive or transformed logical subject, normally at the end of the sentence) -the wall was *jumped over* (*by the soldier*)-. As we shall see, some

of the structures concerned possess more than one object or particle component. The subject is assumed to refer to the 3rd person singular and may be: S (ordinary not transformed subject) *-the shop-steward applied to* the director *for* the post-, R (relative subject) -the maid *who put* the ring *in* the box-, (S) (optional subject preceded by "for" in infinitive constructions) -wall (*for the soldier*) to *jump over*-, SO (object transformed into a subject) *-the captain* was *looked up at* (by...)-, and I+S or I+SO (interrogative subject, consisting of the same elements as "I+O" *-what cook took* the jar *down from* the cupboard?, *what champagne* was *poured out for* the guest?, *what guest* was *poured out* the champagne?-. For practical reasons, the form of the verb is assumed to be the past, except in infinitive constructions which are indicated by "to+ +V" -cook *to take* the jar *down from* the cupboard-. Where applicable, the passive could also be indicated after the main verbal form: V (Pas) -the piano *was done away with* (by...)-. It should be noticed that we do not include the article in our formulations.

Our 10 basic strings answer to the following colligations, some forms of which we have already illustrated (table 1).

Table 1

A) $[(S)+(V_{intr}+Prt_a)]$ 'the boy *came up*'
B) $[(S)+(V_{tr}+Prt_a)+(O)]$ 'the girl *brought in* the pram'
C) $[(S)+(V_{tr}+O_1+Prt_a)+(O_2)]$ 'the pupil *gave* the teacher *back* the book'
D) $[(S)+(V_{intr}+Prt_p)+(O)]$ 'the granny *looked after* the baby'
E) $[(S)+(V_{intr})+(Prt_p+O)]$ 'the soldier *jumped over* the wall'
F) F_1) $[(S)+(V_{tr}+O_1)+(Prt_p+O_2)]$ 'the maid *put* the ring *in* the box',
F_2) $[(S)+(V_{tr}+O_1)+(Prt_p$ -to/for-$+O_2)]$ 'the student *handed* the paper *to* the invigilator'
G) $[(S)+(V_{intr}+Prt_{p1/2}+O_{1/2})+(Prt_{p2/1}+O_{2/1})]$ 'the shop-steward *applied to* the director *for* the post'
H) $[(S)+(V_{intr}+Prt_a)+(Prt_p+O)]$ 'the sailor *looked up at* the captain'
I) $[(S)+(V_{intr}+Prt_a+Prt_p)+(O)]$ 'the landlady *did away with* the piano'
J) J_1) $[(S)+(V_{tr}+Prt_a)+(O_1)+(Prt_p+O_2)]$ 'the cook *took down* the jar *from* the cupboard',
J_2) $[(S)+(V_{tr}+Prt_a)+(O_1)+(Prt_p$ -for/to-$+O_2)]$ 'the waiter *poured out* the champagne *for* the guest'

In connexion with these colligations a few remarks are needed. The distinction between "D" and "E" is based on the manifest degree of cohesion evidenced by certain transferred developments. The transferred *"look after"* = "care", as different from *"look after"* = "look afterwards", cannot be reduced to a non-prepositional structure within the same context -the granny *looked-*, as can be done with the structures of colligation E -the soldier *jumped-*. Similar

in the case with "H" and "I". In colligation "H" the physical action of *"look up"* can be reduced to "look" -the sailor *looked-*, but this could not be done with "the sailor *looked up to* the captain" = "respect", which corresponds to colligation "I". The sub-class 2 of "F" refers to those cases with "to" or "for" which can be transformed into non-prepositional structures by merely deleting the particle and changing the order of the objects. These non-prepositional structures are most relevant to our analysis, since they do not alter the basic underlying structure. These non-prepositional structures are the only non-phrasal transforms that we take into account. We do not deal with transforms such as "the pupil *gave* the teacher the book" from "the pupil *gave* the teacher *back* the book" or "the girl *brought* the pram" from "the girl *brought in* the pram", etc., but we include in our transformational output the type "the student *handed* the invigilator the paper" from "the student *handed* the paper *to* the invigilator". The sub-class 2 of "J" refers to those cases which, while preserving the character of phrasal verb structures, can lose their prepositional particles "for" or "to" and assume a structure "C", whereby the prepositional O_2 becomes O_1 occupying an intervening position between V and Prt.

To the 10 basic strings we can apply two sets of transformations: a) the essentially non-componential group, where the number of basic elements in the kernel string remains unaltered except for the cases of optional agentive and optional or obligatory relative and interrogative adjectives -see below-, b) the componential group constituted by transforms which affect the primary nature of the phrasal verb structures, but never produce new structural types different from those of the 10 basic colligations, except in one single (T_{9b2}) as we shall see.

The non-componential transforms are as follows:

T_1) Front-position of Prt_a or Prt_p+O; T_{1a}) the subject follows the verb *-up came the boy* (A)-, T_{1b}) the subject precedes the verb *-over* the wall *he jumped* (E)-[1].

T_2) Intervening object between V_{tr} and Prt_a -the girl *brought the pram in* (B)-.

T_3) Passive transformation. The verb is in the passive and the order "S+V+O" becomes "SO+V+OS", with the optional agentive at the end of the structure and preceded by the preposition "by" *-the teacher* was *given back the book* (by...) (C)-.

T_4) Infinitive transformation. The verb is an infinitive and the subject

[1] The order "Prt-V-S" may only occur when we have a non-pronominal subject, whereas the order "Prt-S-V" may occur either with a non-pronominal or with a pronominal subject, when it is so required by the balance of the sentence. The most frequent determining cause for the latter order is, however, the existence of a light pronoun as the subject of the verb.

may be optional or obligatory. In cases with one or more objects, the subject is preceded by the preposition "for" and assumes an intervening position between the front-object and the verb *-box (for...)* to *put* the ring *in* (F_1) — (optional), or else introduces the clause directly followed by the infinitive and the object or objects *-soldier* to *jump over the wall* (E), pupil to give the teacher back the book (C)- (obligatory). In constructions with no object, the clause is necessarily introduced by the subject followed by the infinitive -boy to come up (A)-.

T_5) Relative transformation. We may have an optional relative pronoun in constructions introduced by a direct object *-the paper* (*R*) the student *handed (to)* the invigilator (F_2)-[2], or an obligatory relative pronoun in constructions introduced by the subject *-the waiter who poured out* the champagne *for* the guest (J_2)-. When the relative is optional, a particle or the class "Prt_p" must follow the verb and its objects, if the relative does not appear -the invigilator the student *handed the paper to* (F_2)-, but may either precede the relative or follow the verb when the relative is not omitted- the post *for which* he *applied to* the director, the post *which* he *applied to* the director *for* (G)-. If the relative is obligatory or if the particle belongs to the class "Prt_a", the only alternative for the particle is the postposition with regard to the verb -the granny who *looked after* the baby (D), the pram the girl *brought in* (B)-.[3]

T_6) Interrogative transformation. We always have an obligatory interrogative adjective. A particle of the class "Prt_p" -except in "D"- and certain sequences "Prt_a+Prt_p" may either follow the verb at the end of the clause or precede the interrogative adjective which introduces the clause and accompanies the object of "Prt_p" *-what wall* did the soldier *jump over*? (E), *to what invigilator* did the student *hand* the paper? (F_2), *what cupboard* did the cook *take* the jar *down from*?, *down from what cupboard* did the cook *take* the jar? (J_1)-[4]. When we do not have a particle of the class "Prt_p" or the introductory interrogative adjective accompanies the subject, the particle cannot assume the front-position of the structure and always appears after the verb or the

[2] Notice that the structures of T_5F_2 introduced by a direct object permit the deletion of the preposition, without having to alter the word-order. In other cases it is possible to omit the preposition, but this entails a change in word-order: "the student *handed* the paper *to* the invigilator" (F_2)/ "the student *handed* the invigilator the paper" (Non-Prepositional). Still in other cases it is not at all possible to transform "F_2" into a non-prepositional structure which may be regarded as wholly alternative: „the invigilator the student *handed* the paper *to*".

[3] The optional relative may be either one of the variable forms "who/whom/which" or the invariable form "that", except when it is preceded by a preposition, in which case the only acceptable forms are the variable ones.

[4] Cases with a "Prt_a+Prt_p" sequence may obviously crystallize in the type "*at* what captain did he *look up*?".

verb objects *-what pupil gave* the teacher *back* the book? (C), *what waiter poured out* the champagne *for* the guest? (J_2)-.

The non-componential transforms may operate singly or in combination. Let us discuss first their individual application. T_4, T_5 and T_6 operate on all colligations, T_3 operates on all except "A", T_1 operates on all except "C", "D" and "I", and T_2 operates on "B", "J_1" and "J_2" only. As we have already indicated, we do not intend to give an exhaustive list of the various transforms we have examined in the course of our analysis. It will suffice to select one particular colligation and one particular transform, in order to illustrate two important aspects of analysis: a) the amplitude of colligations and b) the amplitude of transforms. The former refers to the number of structures a colligation can produce through the application of the various transforms, and the latter to the number of structures a particular transform can produce throughout the various colligations.

Choosing "B", for instance, the application of our set of not combined transforms yields the following output:

$T_{1b}B$ *'in* she *brought* the pram'[5]
T_2B 'the girl *brought* the pram *in*'
T_3B 'the pram was *brought in* (by...)'
T_4B 'girl to *bring in* the pram'/'pram (for...) to *bring in*'
T_5B 'the girl who *brought in* the pram'/'the pram (R) the girl *brought in*'
T_6B 'what girl *brought in* the pram?'/'what pram did the girl *bring in*?'

This aspect of analysis is not only an adequate tool for the accurate description of colligations in transformational terms, but also a valuable help to distinguish the following pairs of colligations: "D"/"E", "H"/"I", "J_1"/"J_2". As far as "D"/"E" is concerned, we have no $T_{1a}D$ ('Prt_p+O+V_{intr}+S') against "*over* the wall *jumped* the soldier" ($T_{1a}E$), no $T_{1b}D$ ('Prt_p+O+S+V_{intr}') against "*over* the wall he *jumped*" ($T_{1b}E$), no T_5D ('O+Prt_p+R+S+V_{intr}') against "the wall *over* which the soldier *jumped*" (T_5E), and no T_6D ('Prt_p+I+O+v_d+S+V_{intr}') against "*over* what wall did the soldier *jump*?"(T_6E). Where we have no contrast is in T_3D/E and T_4D/E. Similar is the case with "H"/"I". We have no $T_{1b}I$ ('Prt_a+Prt_p+O+S+V_{intr}'/'Prt_a+S+V_{intr}+Prt_p+O') against "*up at* the captain he *looked*"/"*up* he *looked at* the captain" ($T_{1b}H$). We also miss one of the structures of T_5I ('O+Prt_p+R+S+V_{intr}+Prt_a') corresponding to "the captain *at* whom the sailor *looked up*" (T_5H), although we have the T_6I counterparts of "the sailor who *looked up at* the captain" (T_5H) and "the captain (R) the sailor *looked up at*" (T_5H). In the same way, we have no T_6I counterpart ('Prt_p+I+O+v_d+S+V_{intr}+Prt_a') of "*at* what captain did the sailor *look up*?" (T_6H), but we have the T_6I struc-

[5] Cf. note 1.

tures corresponding to "what sailor *looked up at* the captain?" (T_6H) and "what captain did the sailor *look up at*?" (T_6H). As in the previous case, we have no contrast T_3H/I or T_4H/I. The two types of "J" also present some contrasts worth taking into account. We have no $T_{1b}J_2$ structures ('$Prt_a+Prt_p+O_2+$ $+S+V_{tr}+O_1$'/'$Prt_a+S+V_{tr}+O_1+Prt_p+O_2$') corresponding to "*down from* the cupboard the cook *took* the jar" ($T_{1b}J_1$) or "*down* he *took* the jar *from* the cupboard" ($T_{1b}J_1$), although we have the $T_{1b}J_2$ counterpart of "*from* the cupboard the cook *took down* the jar" ($T_{1b}J_2$). We miss the T_5J_2 structure ('$O_2+Prt_a+Prt_p+R+S+V_{tr}+O_1$') corresponding to "the cupboard *down from* which the cook *took* the jar" (T_5J_1), but we have the other T_5J_2 structures corresponding to "the cook who *took down* the jar *from* the cupboard" (T_5J_1), "the jar (R) the cook *took down from* the cupboard" (T_5J_1), "the cupboard (R) the cook *took down* the jar *from*" (T_5J_1), and "the cupboard *from* which the cook *took down* the jar" (T_5J_1). Finally, we also miss the T_6J_2 counterpart ('$Prt_a+Prt_p+I+O_2+v_d+S+V_{tr}+O_1$') of "*down from* what cupboard did the cook *take* the jar?", while we have the T_6J_2 structures corresponding to "what cook *took down* the jar *from* the cupboard?" (T_6J_1), "what jar did the cook *take down from* the cupboard?" (T_6J_1), "what cupboard did the cook *take* the jar *down from*?" (T_6J_1), "*from* what cupboard did the cook *take* the jar *down*?" (T_6J_1), T_2J_1/J_2, T_3J_1/J_2, and T_4J_1/J_2 offer no contrast.

Before we proceed to the illustration of our second aspect of analysis, the output of single non-componential transforms throughout the entire colligation set, we must state that we leave out colligation "G", which will be illustrated in detail in connexion with the topic of "grammaticalness". If, so doing, we choose T_5 as our example, we obtain the following structures:

T_5A 'the boy who *came up*'

T_5B 'the girl who *brought in* the pram'/'the pram (R) the girl *brought in*'

T_5C 'the pupil who *gave* the teacher *back* the book'/'the book (R) the pupil *gave* the teacher *back*'

T_5D 'the granny who *looked after* the baby' / 'the baby (R) the granny *looked after*'

T_5E 'the soldier who *jumped over* the wall / the wall (R) the soldier *jumped over*' / 'the wall *over* which the soldier *jumped*'

T_5F_1 'the maid who *put* the ring *in* the box' / 'the ring (R) the maid *put in* the box' / 'the box (R) the maid *put* the ring *in*' / 'the box *in* which the maid *put* the ring'

T_5F_2 'the student who *handed* the paper *to* the invigilator' / 'the paper (R) the student *handed* (*to*) the invigilator' / 'the invigilator (R) the student *handed* the paper *to*' / 'the invigilator *to* whom the student *handed* the paper'

T_5G see below in connexion with "grammaticalness"

T_5H 'the sailor who *looked up at* the captain' / 'the captain (R) the sailor *looked up at*' / 'the captain *at* whom the sailor *looked up*'

T_5I 'the landlady who *did away with* the piano' / 'the piano (R) the landlady *did away with*'

T_5J_1 'the cook who *took down* the jar *from* the cupboard' / 'the jar (R) the cook *took down from* the cupboard' / 'the cupboard (R) the cook *took down* the jar *from*' / 'the cupboard *from* which the cook *took down* the jar' / 'the cupboard *down from* which the cook *took* the jar'

T_5J_2 'the waiter who *poured out* the champagne *for* the guest' / 'the champagne (R) the waiter *poured out for* the guest' / 'the guest (R) the waiter *poured out* the champagne *for*' / 'the guest *for* whom the waiter *poured out* the champagne'

As can be seen, this aspect of analysis is complementary of the previous one. Both give us a two-dimension perspective of the transform mechanism in the structural system of the phrasal verb.

Now we can proceed to the amplitude of colligations and transforms from the point of view of the combined application of the latter, still in the non-componential sphere. Sets of combinations of non-componential transforms operate on all colligations except "A". Following our method, let us choose one colligation and one particular set of combined non-componential transforms. Taking, for instance, "C" as our colligation example, we get the following output:

T_3+T_2C	'the teacher was *given* the book *back* (by...)'
T_4+T_2C	'pupil to *give* the teacher the book *back*'
T_4+T_3C	'teacher to be *given back* the book (by...)'
$T_4+T_2+T_3C$	'teacher to be *given* the book *back* (by...)'
T_5+T_2C	'the pupil who *gave* the teacher the book *back*'
T_5+T_3C	'the teacher who was *given back* the book (by...)'
$T_5+T_2+T_3C$	'the teacher who was *given* the book *back* (by...)'
T_6+T_2C	'what pupil *gave* the teacher the book *back*?'
T_6+T_3C	'what teacher was *given back* the book (by...)?'
$T_6+T_2+T_3C$	'what teacher was *given* the book *back*?'

This analysis of colligational amplitude may reveal some interesting contrasts. We have no "J_2" types corresponding to $T_3+T_{1b}J_1$ ('*down from* the cupboard the jar was *taken*'), to $T_5+T_3J_1$ ('the cupboard *down from* which the jar was *taken*'), or to $T_6+T_3J_1$ ('*down from* what cupboard was the jar *taken*?'), whereas all the other "J_1" types have a "J_2" counterpart: $T_2+T_{1b}J_2$ ('*for* the guest the waiter *poured* the champagne *out*'), $T_3+T_{1b}J_2$ ('*for* the guest the champagne was *poured out* -by...-'), $T_4+T_2J_2$ ('waiter to *pour* the champagne *out for* the guest' / 'guest -for...- to *pour* the champagne *out for*'), $T_4+T_3J_2$ ('champagne to be *poured out for* the guest -by...-'), $T_5+T_2J_2$ ('the waiter who *poured* the champagne *out for* the guest' / 'the guest (R) the waiter *poured* the champagne *out for*' / 'the guest *for* whom the waiter *poured* the champagne *out*'), $T_5+T_3J_2$ (the champagne which was *poured*

out for the guest' / 'the guest *for* whom the champagne was *poured out* -by...-'), etc. See below the two remaining sets involving T_6.

For our combined transform illustration we can use the interrogative sets with T_6, leaving out colligation "G" as we have been doing so far. The output is as follows:

T_6+T_2B 'what girl *brought* the pram *in*?'
T_6+T_3B 'what pram was *brought in* (by...)?'
T_6+T_2C 'what pupil *gave* the teacher the book *back*?'
T_6+T_3C 'what teacher was *given back* the book (by...)?'
$T_6+T_2+T_3C$ 'what teacher was *given* the book *back* (by...)?'
T_6+T_3D 'what baby was *looked after* (by...)?'
T_6+T_3E 'what wall was *jumped over* (by...)?'
$T_6+T_3F_1$ 'what ring was *put in* the box (by...)?' / 'what box was the ring *put in* (by...)?' / '*in* what box was the ring *put* (by...)?'
$T_6+T_3F_2$ 'what paper was *handed to* the invigilator (by...)?' / 'what invigilator was the paper *handed to* (by...)?' / '*to* what invigilator was the paper *handed* (by...)?'
T_6+T_3H 'what captain was *looked up at* (by...)?'
T_6+T_3I 'what piano was *done away with* (by...)?'
$T_6+T_{1b}J_1$ '*down from* what cupboard did the cook *take* the jar?'
$T_6+T_2J_1$ 'what cook *took* the jar *down from* the cupboard?' / 'what cupboard did the cook *take* the jar *down from*?'
$T_6+T_{1b}+T_3J_1$ '*from* what cupboard did the cook *take* the jar *down*?'
$T_6+T_3J_1$ 'what jar was *taken down from* the cupboard (by...)?' / 'what cupboard was the jar *taken down from* (by...)?'
$T_6+T_{1b}+T_3J_1$ '*from* what cupboard was the jar *taken down* (by...)?' / '*down from* what cupboard was the jar *taken* (by...)?'
$T_6+T_2J_2$ 'what waiter *poured* the champagne *out for* the guest?' / 'what guest did the waiter *pour* the champagne *out for*?'
$T_6+T_{1b}+T_2J_2$ '*for* what guest did the waiter *pour* the champagne *out*?'
$T_6+T_3J_2$ 'what champagne was *poured out for* the guest (by...)?' / 'what guest was the champagne *poured out for* (by...)?'
$T_6+T_{1b}+T_3J_2$ '*for* what guest was the champagne *poured out* (by...)?'

The previous illustrative samples are perhaps enough to make us aware of the immense wealth of current linguistic material yet unclassified and hardly studied as part of a complex structural system. Here we cannot exemplify nor discuss all the transforms which we have analysed for this study. However, it will not be difficult to work them out following our basic transformational set. The thesis that we defend is the need to delve systematically into the full potentiality of the contemporary language in the light of transformational analysis, which necessarily brings us to the problem of "grammaticalness".

By way of another illustrative sample, it would be interesting to know, for instance, why and how the following theoretically possible structures of colligation "G" -as a result of the application of our basic transforms-, are or are not all grammatical and acceptable:

("G" structures produced by single non-componential transforms)

$T_{1b}G$ '*to* the director he *applied for* the post' / '*for* the post he *applied to* the director'[6]

T_3G 'the director was *applied to for* the post (by...)' / 'the post was *applied for* to the director (by...)'

T_4G 'shop-steward to *apply to* the director *for* the post' / 'shop-steward to *apply for* the post to the director' / 'director (for...) to *apply to for* the post' / 'director (for...) to *apply for* the post *to*' / 'post (for...) to *apply to* the director *for*' / 'post (for...) to *apply for to* the director'

T_5G 'the shop-steward who *applied to* the director *for* the post' / 'the shop-steward who *applied for* the post *to* the director' / 'the director (R) the shop-steward *applied to for* the post' / 'the director (R) the shop-steward *applied for* the post *to*' / 'the director *to* whom the shop-steward *applied for* the post' / 'the post (R) the shop-steward *applied to* the director *for*' / 'the post (R) the shop-steward *applied for to* the director' / 'the post *for* which the shop-steward *applied to* the director'

T_6G 'what shop-steward *applied to* the director *for* the post?' / 'what shop-steward *applied for* the post *to* the director?' / 'what director did the shop-steward *apply to for* the post?' / 'what director did the shop-steward *apply for* the post *to*?' / 'to what director did the shop-steward *apply for* the post?' / 'what post did the shop-steward *apply to* the director *for*?' / 'what post did the shop-steward *apply for to* the director?' / '*for* what post did the shop-steward *apply to* the director?'

("G" structures produced by combined non-componential transforms)

$T_3+T_{1b}G$ '*to* the director the post was *applied for* (by...)' / '*for* the post the director was *applied to* (by...)'

T_4+T_3G 'director to be *applied to for* the post (by...)' / 'post to be *applied for to* the director (by...)'

T_5+T_3G 'the director who was *applied to for* the post (by...)' / 'the director who was *applied for* the post *to* (by...)' / 'the director *to* whom the post was *applied for* (by...)' / 'the post which was *applied for to* the director (by...)' / 'the post which was *applied to* the director *for* (by...)' / 'the post *for* which the director was *applied to* (by...)'

T_6+T_3G 'what director was *applied to for* the post (by...)?' / 'what director was the post *applied for to* (by...)?' / '*to* what director was the post *applied for* (by...)?' / 'what post was *applied for to* the director (by...)?' / 'what post

[6] Cf. ibid.

was the director *applied to for* (by...)?' / '*for* what post was the director *applied to* (by...)?'

Undoubtedly, the analyst is compelled to go out and do a certain amount of field work, but the phrasal verb is still a very imperfectly explored area as far as transformational analysis is concerned. How to check the limits of analysis and how to verify the various outputs, is not always easy. Any definite improvement, however, would certainly open new vistas. The achievement of analysis is in itself a valuable stimulus.

The two previous aspects of analysis we have been dealing with, are essentially related to the capacity or amplitude of colligations and transformations. The system of interrelations in the colligation set is primarily revealed to us by the componential set of transforms:

T_7). T_{7a}) Change of particle-class: $Prt_a \rightarrow Prt_p+O$ ("A" → "E" 'the boy *came up the road*', "B" → "F_1" 'the girl *brought* the pram *into the house*'[7]). T_{7b}) Change of particle-class: $Prt_p \rightarrow Prt_a$+deletion of O ("E" → "A" 'the soldier *jumped over*', "F_1" → "B" 'the maid *put in* the ring'[8]).

T_8). T_{8a1}) Addition of the entire group "Prt_p+O" to a structure involving a particle of the class "Prt_a": $Prt_a \rightarrow Prt_a+Prt_p+O$ ("A" → "H" 'the boy *came up to the road*', "B" → "J_1" 'the girl *brought in* the pram *from the street*', "B" → "J_2*" 'the girl *brought in* the pram *for the boy*'[9]). T_{8a2}) Addition of the entire group "Prt_p+O" to a purely prepositional sequence not involving a particle of the class "Prt_a": ("E" → "G*" 'the soldier *jumped over* the wall *into the street*'. T_{8b}) Deletion of prepositional group in any of the two previous sequences: ("G" → "E" 'the shop-steward *applied to* the director', the shop-steward *applied for* the post', "H" → "A" 'the sailor *looked up*', "J_1" → "B" 'the cook *took down* the jar', "J_2" → "B*" 'the waiter *poured out* the champagne')[10].

[7] In the change of particle class we include the pairs "in/into" and "out/out of" despite the fact that there is also a slight change of form. While these pairs certainly contrast other pairs with exactly the same form such as "off (Prt_a)/off (Prt_p)", "down (Prt_a)/down (Prt_p)", etc., they cannot be regarded as a free combination of two independent particles such as "away from" or "out *into*".

[8] Notice that this is valid provided that we effect the reverse of T_2, thereby changing the order "V-O-Prt" to "V-Prt-O".

[9] The asterisk, in this and further cases, means that the structure concerned does not behave in all respects exactly like our kernel illustrations. So, "the girl *brought in* the pram *for* the boy" should be categorized as a type of "J_2" in so far as we have the variant "the girl *brought* him *in* the pram" (of course $T_{8b1}J_2$*→C and not F_1) which is missing in "J_1". But, at the same time, we can have a $T_{1b}J_2$* introduced by Prt_a, which would hardly have a $T_{1b}J_2$ counterpart.

[10] It should be noticed that the prepositional groups concerned in the operation of T_8 always hold a close connexion with the sequence "V+Prt_a".They are not loose prepositional groups of the type "he *came up* at noon" (A), "he *brought* it *in* without

T_9). T_{9a}) Deletion of Prt_a in a structure involving a particle of the class Prt_p: ("H" → "E" 'the sailor *looked at* the captain', "J_1" → "F_1" 'the cook *took* the jar *from* the cupboard', "J_2" → "F_2" 'the waiter *poured* the champagne *for* the guest'). T_{9b1}) Deletion of Prt_p in a structure involving a particle of the class "Prt_a": ("J_2" → "C"+change in word-order -$O_2 \rightarrow O_1$ occupying an intervening position between V and Prt- 'the waiter *poured* the guest *out* the champagne'). T_{9b2}) Deletion of Prt_p in a structure with only one particle of this class: ("F_2" → Non-Prepositional+change in word-order as in the previous transform 'the student *handed* the invigilator the paper')[11].

T_{10}). T_{10a}) Addition of Prt_a in a structure involving a particle of the class Prt_p: ("E" → "H*" 'the soldier *jumped out over* the wall', "F_1" → "J_1" 'the maid *put away* the ring *in* the box', "F_2" → "J_2" 'the student *handed down* the paper *to* the invigilator'). T_{10b1}) Addition of Prt_p in a structure involving a particle of the class "Prt_a": ("C" → "J_2"+the corresponding change in word-order, whereby $O_1 \rightarrow O_2$ 'the pupil *gave* the book *back to* the teacher'). T_{10b2}) Addition of Prt_p in a structure involving no locative particles: Non-Prepositional → "F_2"+the same change in word-order 'the student *handed* the paper *to* the invigilator').

It should be noticed that not all the previous interrelations are always exact in the illustrations given. As we have already annotated, those cases which do not exactly conform to the structures of our colligation set, are accompanied by an asterisk. The most conspicuous case is no doubt $T_{10a}E \rightarrow H$*, whose amplitude is minimal. While this H* admits of infinitive and relative transforms of the type 'wall to *jump out over*', 'the wall he *jumped out over*', etc., we cannot effect the variant of T_5H 'O+Prt_p+R+S+V_{intr}+Prt_a' along the lines of T_5E 'the wall *over* which the soldier *jumped*'. The physical order of realization, first "out of the window", then "over or onto the wall" has a real counterpart in the obligatory relative construction 'O+(R)+S+ +V_{intr}+Prt_a+Prt_p'. Nevertheless, all the interrelations which we have illustrated can be perfectly verified internally, that is, without adding any new elements to the structures of our colligations nor increasing the number of colligation models. Since these transforms do not produce any new colligational types[12], we could limit our operations to the production of the 12 illustrations of our colligation set. In a case like "the soldier *jumped out over* the wall" ($T_{10}E \rightarrow H$*, we have added a new element "out" to our illustration

hurry" (B), "the soldier *jumped over* the wall out of pride" (E): "he *took* it *down* from fear" (B), "the waiter *poured out* the champagne at his request after the speech" (B), etc.

[11] Cf. note 2.

[12] As we have pointed out in connexion with our colligation set, the non-prepositional transformation of "F_2" is most relevant to our analysis, since the structures so produced do not alter the basic underlying structure of "F_2".

of colligation "E" 'the soldier *jumped over* the wall' but, by so doing, we have created a type which we already had in our colligation "H". This means that we could verify $T_{10a}E \rightarrow H$, via $T_9H \rightarrow E$: 'the sailor *looked at* the captain' ($T_{9a}H \rightarrow E$)='the sailor *looked up at* the captain' ($T_{10a}E \rightarrow H$).

All the previous transformational interrelations are the result of the operation of componential transforms which do not affect the basic core of the underlying structures. There are grammatical and semantic modifications, but no radical semantic alteration. The modifications add or subtract, leaving intact the primary value of the phrasal verb. Perhaps the most distinctive modification, amongst those which we encounter in our colligation set, is that effected by $T_{7a}A \rightarrow E$ 'the boy *came up the road*', where there is a notion of contact in addition to that of relative verticality or horizontality (up the road=on the road). In other cases, the modification amounts to mere explicitness when not to actual implicitness as in $T_{9a}J_2 \rightarrow F_2$ 'the waiter *poured* the champagne *for* the guest' (pour=pour out). We could, however, illustrate transforms which actually alter the nature of the phrasal verb itself. Leaving aside the relevant contrast *"come up the road/come up to the road"* if we apply T_{9b1} to the latter, we have cases like "the sailor *looked up* the captain", whose connexion with "the sailor *looked up at* the captain" or with "the sailor *looked at* the captain" is null. Our first structure is undoubtedly a type "B*" which could be produced by $T_{9b1}H$, but whose amplitude and semantic character do not coincide with those of our "B" illustration nor with those of the kernel "H". The contrast is manifest if we compare the previous "B*" with "H" and $T_{9a}H$, and our model "B" with T_7B and $T_{8a1}B$. The unit *"bring in* the pram"="bring here/there/ from somewhere...", and *"look up at"*="look physically here/there...", plus the explicit directions of "in" and "up" respectively, but the transitive *"look up*+O"="call on", that is, it no longer constitutes an analysable unit in directional terms[13]. We must remark that the previous transforms also illustrates basic meaning contrasts '$V_{tr}+Prt_a+O$'/'$V_{intr}+Prt_a+Prt_p+O$' (with the possibility of the passive turn), which may nonetheless belong in the same semantic field, as is the case with *"play down"* / *"play down on"*.

In addition to the formulation of the various colligational interrelations, we could talk here of two other types of amplitude: a) as regards the shift from one colligation to another (shift amplitude of colligations), b) as regards the power to effect such a shift in the colligations area of action of transforms. Both can be seen in table 2.

It should be borne in mind that "D" and "I" are not affected by the componential transforms because of their cohesiveness, which is the main reason why we have regarded them as colligational types different from "E" and "H"

[13] Cf. the directional T_{comp} below.

Table 2

	A	B	C	D	E	F_1	F_2	G	H	I	J_1	J_2	Non-Prep.	Area of action of transforms
T_{7a}	E	F_1												2
T_{7b}					A	B								2
T_{8a1}	H	J_1 J_2*												3
T_{8a2}					G*									1
T_{8b}								E	A		B	B		4
T_{9a}									E		F_1	F_2		3
T_{9b1}												C		1
T_{9b2}							Non-Prep.							—
T_{10a}					H*	J_1	J_2							3
T_{10b1}			J_2											1
T_{10b2}													F_2	
shift amplitude of collig.	2	3	1		3	2	1 —	1	2		2	3	1	

respectively[14]. The shift amplitude of colligations may therefore be a useful guide in the analysis of the phrasal verb on syntactico-semantic grounds. This shift amplitude is the exponent of a definite step forward in the process of analysis. The componential transforms may prolong, so to speak, the generative development of the structures produced by the non-componential transforms, beyond the colligational boundaries. In other words, the scope for analysis is considerably enlarged. Our colligations can produce not only a number of structures within the same colligational frame, but also other colligations. In order to illustrate the contribution of the componential transforms to the further analysis of the individual structures of the phrasal verb, let us take, for instance, the single non-componential T_4. This transform operates on all our 12 kernel illustrations, producing 31 distinct structures: T_4A produces only 1 structure, T_4B, T_4C, T_4D, T_4E, T_4H and T_4I produce 2 structures each, T_4F_1, T_4F_2, T_4J_1 and T_4J_2 produce 3 structures each, and T_4G produces 6 structures. If now we replace the colligations of every one of the previous transforms (B, C, D, etc.) by the componential transforms which -operating on other colligations- can produce them, we obtain 23 additional

[14] Cf. our colligation set.

strings of transforms able to produce the same 31 distinct structures, either externally or internally[15], taking always into account the change of word-order in some of the transformations[16]. So we have 12 T_4 plus 23 T_{comp}, that is, a total of 35 T, that can produce the same output. Table 3 illustrates in the first column the single non-componential T_4 operating on each colligation, followed by the number of structures so produced, and in the second column the componential transforms which can produce the same structures.

Table 3

T_4A	1	T_4+:$T_{7b}E$, $T_{8b}H$	(2)
T_4B	2	T_4+: $T_{7b}F_1$, $T_{9b_1}H$, $T_{8b}J_1$, $T_{8b}J_2$	(4)
T_4C	2	T_4+: $T_{9b_1}J_2$	(1)
T_4D	2		—
T_4E	2	T_4+: $T_{7a}A$, $T_{8b}G$, $T_{9a}H$	(3)
T_4F_1	3	T_4+: $T_{7a}B$, $T_{9a}J_1$, $T_{9a}J_2$	(3)
T_4F_2	3	T_4+: T_{10b_2} Non-Prepositional, $T_{9a}J_2$	(2)
T_4G	6	T_4+: $T_{8a_2}E$	(1)
T_4H	2	T_4+: $T_{8a_1}A$, $T_{10a}E$	(2)
T_4I	2		—
T_4J_1	3	T_4+: $T_{8a_1}B$, $T_{10a}F_1$	(2)
T_4J_2	3	T_4+: $T_{8a_1}B$, $T_{10a}F_2$, $T_{10b_1}C$	(3)
12	31		(23)

Similarly, if we effect the componential replacement in strings of combined non-componential transforms, we increase considerably the number of strings able to produce the same structures. Taking only the combined non-componential transforms involving T_4+T_2 or T_3, we find 14 strings with a global output of 17 distinct structures. If we replace their respective colligations, that is, the colligations upon which they operate, by the componential transforms which can produce them -with the same reservations previously stated[17]-, we discover 26 additional strings: 8 can replace "B" in T_4+T_2B and T_4+T_3B, 6 can replace "J_2" in $T_4+T_2J_2$ and $T_4+T_3J_2$, 4 can replace "J_1" in $T_4+T_2J_1$ and $T_4+T_3J_1$, 3 can replace "E" in T_4+T_3E, 3 can replace "F_1" in $T_4+T_3F_1$, 2 can replace "F_2" in $T_4+T_3F_2$, 2 can replace "H" in T_4+T_3H, and 1 can replace "C" in T_4+T_2C. Notice that none can replace "D" in T_4+T_3D nor "I" in T_4+T_3I. The 26 additional strings plus the 14 not combined strings of T_4+T_2 or T_3, make up a total of 40 strings able to produce our 17 structures.

[15] See above in connexion with the interrelations effected by our T_{comp}.

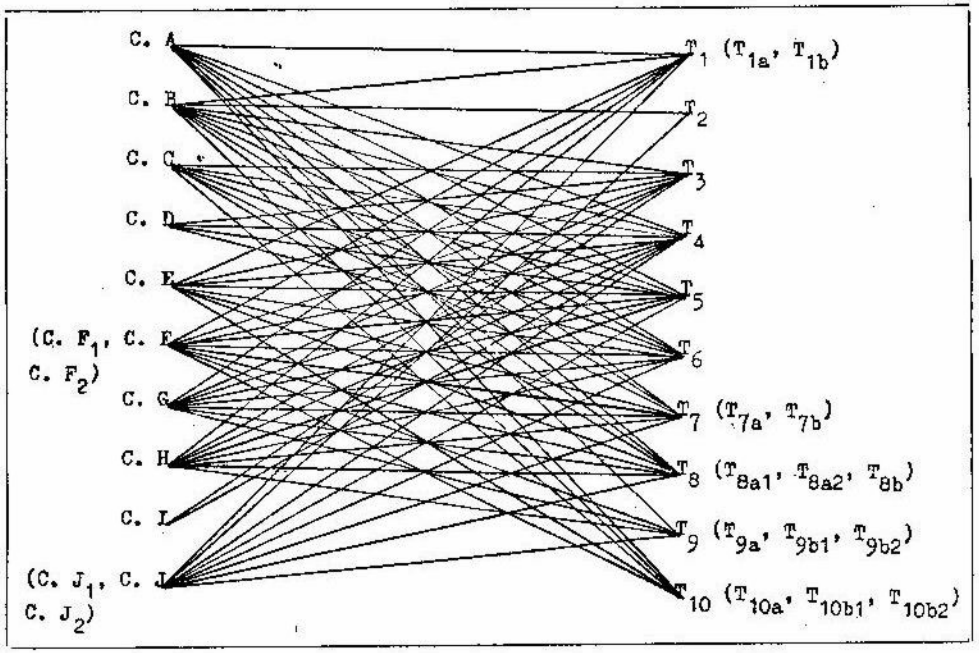
[16] These are: $T_{7b}F_1 \rightarrow B$, $T_{9b_1}J_2 \rightarrow C$, $T_{9b_2}F_2 \rightarrow$ Non-Prep., $T_{10b_1}C \rightarrow J_2$, T_{10b_2} Non-Prep. $\rightarrow$ $\rightarrow F_2$.

[17] Cf. notes 15 and 16.

We could still put together the output of the single T_4 (once enlarged through the application of the componential replacement) and that of T_4 in combination with T_2 or T_3 (also taking into account the enlargement effected by the componential replacement). This yields a total of 75 strings, which gives us an adequate, although partial, perspective of the "enlarged" area of action of T_4. This perspective could be contrasted with those of other transforms so as to define further interrelations. As can be seen, in the sphere of the componential transforms we only operate with single sets. Their combination would make the panorama far more complex.

All we have said so far, presents no more than an imperfect cortical section, as it were, of the extraordinary complexity of the structural system of the phrasal verb. The diagram table 4 is perhaps more revealing:

Table 4



We are now in a position to summarize the primary outcome of this investigation. An examination of the various interrelations between our 10 basic colligations and our 10 basic transforms, as revealed in more than 150 structures we have analysed -of which we have only given a few samples although systematically chosen-, suggests that transformational analysis helps us establish in accurate terms the capacity of each individual kernel string and what it shares in common with others. We have not only limited greatly the scope of our illustrations but also the very material of our analysis. The number

of basic colligations and transforms could be considerably increased. It is clear that not all the sequences with the same components or even with the same colligation have a parallel capacity. For this reason, this analysis also suggests that the elaboration of lexical rules whereby individual sequences can be categorized according to their transformational capacity, as well as individual forms according to their various degrees of interchangeability, is of the utmost importance in the description of English.

In addition to its use for actual syntactical description however, transformational analysis has other interesting applications. First of all it allows us to scientifically differentiate transforms having an identical sequence but belonging to different kernel strings, and different kernel strings possessing also an identical sequence. The following are some illustrations of ambiguous transforms: 'the boy to *drive up*' (T_4A/T_4B), in "A" the boy *drives up*", in "B" "the boy is *driven up*"; 'the sort of person to *look up*' (T_4A/T_4B), in "A" "that person would look upwards, would *look up at* something", in "B" "that was the sort of person *one should visit*"; 'the soldier to *jump over*' (T_4A/T_4E), in "A" "the soldier *jumps over*", in "E" "the soldier is *jumped over*"; 'there was no road for him to *come up*' (T_4A/T_4E), in "A" "he cannot *come up to* a definite place because there is no road leading to it", in "E" "he cannot *come up* any road since there is none"; 'the girl to *push in* the pram' (T_4B/T_4F_1) in "B" "the pram is *pushed into* a definite place by the girl", in "F_1" "the girl is *pushed in* the pram"; 'the steps to *take* the child *down*' (T_4B/T_4F_1), in "B" "the child is *taken down from* a place *to* another thanks to the steps", in "F_1" "the child is simply *taken down* the steps"; 'that was a suitable van to *bring* those things *in*' (T_4B/T_4F_1), in "B" "those things are meant to be *brought into* a definite place", in "F_1" "those things are only said to be *transported in* a van"; 'the scouts to *march down* the road' ($T_4E/T_4F_1/T_4$ Non-Phrasal (intr)/T_4 Non-Phrasal (tr), in "E" "the scouts *march along* the road" or "the scouts *march to* a place down the road", in "F_1" "the scouts are *marched along* the road" or "the scouts are *marched to* a place down the road", in Non-Phrasal (intr) "the scouts *march in* a place down the road", in Non-Phrasal (tr) "the scouts are *marched in* a place down the road"[18]; 'the children he *saw through* (T_5B/T_5E), in "B" "he made sure that the children were guided safely", in "E" "the children were a partial obstacle to his vision" or "he was not deceived by the children".

Amongst the ambiguous colligations that can be equally differentiated, we may distinguish three different types. The first type is that of different kernel strings sharing the same sequence, which are not due to the autonomous character of a prepositional object nor to lexicalization: 'he *kept off* the

[18] As can be seen, we are confronted here with a different kernel string due to the autonomous character of the prepositional object of the structure.

boys' (B/E), in "B" "he did not let the boys come near", in "E" "he did not go near the boys"; 'the parents *looked after* the children' (D/E), in "D" "the parents *took care of* their children", in "E" "the parents *cast* their *sight upon* their children as they passed by" or "the parents *looked after* their children had finished looking"; 'he *is through with* his car' (H/I), in "H" "he *passed* the customs *with* his car", in "I" "he finished repairing it" or "he has *disposed of* it"; 'he was *going in for* speech therapy' (H/I), in "H" "he was *going into* the speech therapy unit *for* treatment", in "I" "he was going to become a speech therapist". The second type is that of different kernel strings due to the autonomous character of the prepositional object of one of the structures: 'he *looked up at* the Union' (A/H), in "A" "he *looked up* when he reached the Union", in "H" "he raised his eyes in order to *glance at* the Union"; 'he *took down* the jar *from* the cupboard' (B/J_1), in "B" "he *took down* the jar usually *kept in* the cupboard", in "J_1" "he *lifted* the jar *down from* the cupboard"; 'he *brought up* the butter *from* the Republic' (B/J_1), in "B" "he *brought up* butter *produced in* the Republic", in "J_1" "he *brought* the butter *all the way up from* the Republic"; 'the maid *put away* the ring *in* the box' (B/J_1), in "B" "the maid *put away* the ring that was *kept in*, or *attached to*, the box" in "J_1" "the maid *put* the ring *away in* a box"; 'somebody *poured out* the wine *for* the guests' (B/J_2), in "B" "somebody *poured out* the wine that had been *reserved for* the guests", in "J_2" "somebody *poured* the wine *out* so that the guests might drink it". The third type is that of different kernel strings due to lexicalization; the lexicalized string has lost most of the grammatical flexibility of the other string: 'he threw up the sponge' (B/B lex), in "B" "he actually *threw up* a sponge", in "B lex" "he *gave in*"; 'he *brought* the house *down*' (B/B lex), in "B" "he *brought down* a model or toy house", in "B lex" "the was tumultuously applauded by the theatre audience"; 'he *put* his foot *in* it' (F_1/F_1 lex), in "F_1" "he *put* his foot *into* something", in "F_1 lex" "he made a blunder"; 'the chief *sold* them *down the river*' (F_1/F_1 lex), in "F_1" "the chief *sold* them while *en route down the river*" or "the chief sold them when he *arrived at a place down the river*", in "F_1 lex" "the chief simply betrayed them"[19].

Transformational analysis also provides a method that may be useful for semantic exploration, apart from the contrast of transforms with the same sequence belonging to different kernel strings and different kernel strings possessing the same sequence. The range of capacity of transforms obviously

[19] We still may have another type of ambiguity between two strings belonging to the same colligation and produced by the same transform, holding no lexicalization contrast. This is, for instance, the case of "box for the maid to *put in* the ring" ($T_4F_1-1-/$ $/T_4F_1-2-$): in 1, "the maid has a box wherein to put the ring" in 2, "the maid has a box to be *put in* the ring". The former is a likely frame for "ring" (jewel), while the latter is a likely frame for "ring" (circle).

entails a meaning quotient whether of grammatical flexibility (T_3, T_4, T_5, T_6 and many others that we might have recourse to), or of possible emphasis and Aktionsart (T_1, T_2, etc.), or of explicitness and comprehension (T_{comp}). But, more important, transformational analysis affords a good clue for unravelling empirically the complex nature of many phrasal verb structures in terms of referential meaning. This can be effected through the application of the directional T_{comp}, that is, those which add or subtract a concrete directional modification or specification of the primary particle of the verb, without affecting the basic character of the structure. See our illustrations of T_{7a}, T_{8a1}, T_{8a2} and T_{9a}. Some structures will admit of them all, both as componential and directional transforms, while others will hardly admit of them all in both capacities[20]. This is what we may call "degrees of analysability", ranging from those structures which are extremely flexible in those terms to those which are hardly or not at all open to any modification or substitution. According to this, we face a great diversity of semantic types which can be adequately analysed. Since every structure is part of a larger context, either real or of situation, the verification of the degrees of analysability must be preceded by an examination of the contextual causes why this analysis may be prevented. This can be due to a metaphoric development of the type illustrated in "that *boils down to* mere negligence" (I), where the action is not physically performed, corresponding instead to an image on a figurative level. Or it may result from a synecdochic development of the type illustrated in "he *brought* his brother *down*" -killed- (B), where the action can be physically performed but represents only a partial aspect within the frame "cause-effect", implying more than is actually said. This type of transference may, of course, be also the basis of a metaphoric development. This is the case with "*look out for* your soul" (I) against the purely sinecdochic "*look out*" (A) in a physical context with the meaning of "beware". We can find out whether any of these two phenomena is responsible for the lack of analysability in certain structures, by simply reducing the environment to a literal or physical situation. In many cases this will render a perfectly analysable structure in terms of the directional T_{comp}. There are however two other reasons why the structures of the phrasal verb may not admit of this analysis. In the case of prepositional constructions, this may be due to the highly grammaticalized use of the preposition in cases like "*believe in*", "*apply to*" "*buy* O *for*", etc. This type of structures constitutes a class apart and can hardly be analysed in any directional terms at all. But there are other circumstances where the particle is far from reaching such a high degree of grammaticalization, particularly in structures involving a primary particle of the class Prt_a. In these cases we normally have a certain lack of directional agreement between particle and verb, that is, we have

[20] See below.

a non-directional verb + a locative particle, but this also happens in analysable structures. This second type of structures is illustrated in cases like "*find out*" (A/B), "*drink down*" (B), "*preach at*" (E)[21], "*work out for*" (J_2), etc., which do not admit of any directional completion or replacement. These structures could nonetheless be analysed in terms of their underlying structures. These are wider frames within which not analysable structures can acquire the analytic flexibility of the great bulk of the structures of the language. In units with a primary particle of the class Prt_a, which constitute the most interesting portion of not analysable structures in terms of our directional T_{comp}, the formulation of an underlying structure must necessarily revolve round an additional directional verb (D) in connexion with which, Prt_a admits of the concrete specifications of our directional T_{comp}. So we could formulate the following underlying structure for "*drink down*" (B): $[(V_{tr}+O)+(OS+D_{intr}+Prt_a)\ /\ (OS+D_{intr}+Prt_a\ by\ V_{tr}+O)]$, which roughly translated into ordinary terms means: 'he drinks it and it *goes down*' / 'it *goes down* by him/his drinking it'. That of "*drink up*" (also B), would be: $[(V_{tr}+O\ by\ D_{tr}+O+Prt_a)\ /\ (V_{tr}+O+by\ D_{tr}+Prt_a+O)\ /\ (D_{tr}+O+Prt_a)+(V_{tr}+O)\ /\ (D_{tr}+Prt_a+O)+(V_{tr}+O)]$, that is, 'he drinks it by *taking* it *up*' / 'he drinks it by *taking up* the glass' / 'he *takes* it *up* and drinks it' / 'he *takes up* the glass and drinks' ("the content" or "from it"). It should be noticed that if we apply stricter criteria of analysis, such as the possibility of replacing the particles of the class Prt_a by the generic adverbs 'here/there' or by the formations in '-ward', then many analysable structures in terms of our directional T_{comp} will undoubtedly turn close, with only one way open to analysis: their underlying structures. This would be the case with "*shut out*", "*die away*", etc. These structures admit of T_{sa2} but not of a direct replacement of the particles by 'here/there'. This would nonetheless be possible with "*come out*" or "*run up*".

Finally, the directional componential transforms lead us to the ultimate source of phrasal verb structures, that is, the dimensional universe. But this is not the occasion to delve into the connexion between the two structural worlds.

It is hoped that the ideas we have expressed in this study will stimulate further discussion towards the accurate description of this exciting microcosmos, in the light of transformational analysis.

[21] Notice the semantic contrast with more grammaticalized use of "to" in "*preach to*".