

BE AND CASE THEORY

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Summary

BE has never been treated quite as a real verb and remains somewhat under-analyzed in current generative syntax, in particular in what concerns the variety of homonyms it spells out and their adicity, thematic, and Case properties. Since in its most frequent uses BE is a 'light' verb, if not a merely functional category (a tense-, aspect- or voice-carrier), attempts to optimize the syntax have ignored significant differences among its various homonyms, which has led to an insufficient treatment of existential constructions. On evidence ultimately based on the 'zeugma test', this work analyzes the adicity, thematic and Case properties of the homonymous lexemes that BE spells out and claims, in particular, that 'existential BE' is dyadic, and a separate lexeme from 'copular BE', that *there* is not an expletive, but its second argument, and that only 'existential BE', but not BE *tout court*, directly/exceptionally assigns Case to the indefinite NP that follows it, which explains facts that previous analyses by Chomsky, Belletti or Lasnik could not explain.

KEY WORDS: Existential constructions, existential *be*, *there*, Case, *be*-homonyms

Resumen

BE nunca ha sido tratado del todo como un auténtico verbo y permanece un tanto infra-analizado en la actual sintaxis generativista, especialmente en lo que concierne a la variedad de homónimos que expresa y sus propiedades argumentales, temáticas y de Caso. Como en sus usos más frecuentes BE es un verbo 'ligero', si no una categoría meramente funcional (un portador de tiempo, aspecto o voz), los intentos de optimizar la sintaxis han ignorado diferencias significativas entre sus distintos homónimos, lo que ha conducido a un tratamiento insuficiente de las construcciones existenciales. Partiendo de evidencia en último término derivada del 'test del zeugma', aquí se analizan las propiedades argumentales, temáticas, y de Caso de los distintos lexemas homónimos que BE expresa y se sostiene, en particular, que el 'BE existencial' es diádico, y un lexema distinto del 'BE copulativo', que *there* no es un expletivo, sino su segundo argumento, y que sólo el 'BE existencial', pero no BE *tout court*, directa/excepcionalmente asigna Caso a la FN indefinida que lo sigue, lo cual explica hechos que los análisis anteriores de Chomsky, Belletti o Lasnik no pueden explicar.

PALABRAS CLAVE: Construcciones existenciales, *be* existencial, *there*, Caso, homónimos de *be*

1. Introduction

The English verb 'BE' is used mainly as a copula selecting AP, NP, DP or PP predicates, cf. (1), to express the situation of individuals in space and of events in space and time, cf. (2), as an auxiliary selecting present/passive participles in progressive or passive constructions, respectively, cf. (3-4), occasionally as a future or modal auxiliary, cf. (5-6), in existential-auxiliary uses, as in (7-8), very rarely in absolute use, as in (9), in pure existential constructions like (10), and to express identity, as in (11).

- (1) *Janine is French/professor of linguistics/a stripper/from Boston.*
- (2) *Helen/the wedding is in London; *Helen/the wedding is in July*
- (3) *Andrew is studying medicine.*
- (4) *Janine was interviewed by Cosmopolitan.*
- (5) *The course is to start in a week's time.*
- (6) *The students are to register before tomorrow at noon.*
- (7) *There is a young lady waiting in your office.*
- (8) *There were several hooligans arrested by the police.*
- (9) *I think, therefore I am.*
- (10) *There was a gigantic traffic jam (on the M4).*

¹ My reference here to 'the verb BE' as if it were a unique lexeme is provisional and a matter of convenience, just as when lexicographers group different senses/uses of forms under a single headword. In what follows, however, separate lexemes will in due course be identified and their differences properly discussed.

- (11) *The Dean/Mr. Harris is that gentleman/That gentleman is the Dean/Mr. Harris.*

How substantial BE is as a verb in each of (1-11), is debatable, but, on the whole, the prevailing opinion is that it is not very substantial².

2. *Be* followed by another predicate

The status of ‘copular BE’ (BE_{COP}, hereafter) e.g., in (1) as a verb is particularly vulnerable. First, in many languages (e.g. Latin, Russian), a BE-like verb is not even needed to connect a subject to its attribute, which makes BE_{COP} questionable as a UG category. Then, its semantic content is elusive, if distinguishable at all from that of accompanying predicates, and, as a matter of fact, tends to be omitted in standard representations of Logical Form; for example, in Predicate Logic, *Janine is French/professor of linguistics/a stripper/from Boston* would be represented simply as F(j), P(j, l), S(j), and F(j, b), respectively, and in Type Logic, *French/professor of linguistics/a stripper/from Boston* and *is French/professor of linguistics/a stripper/from Boston* are all analysed as type <e, t>, i.e., the addition of BE_{COP} to a predicate does not alter the semantic type of the predicate.

BE expressing the situation of individuals/events in space/time (BE_{LOC}, hereafter) is arguably more substantial, semantically speaking, than BE_{COP}, since it has an existential reading modulo the meaning of the PP that BE_{COP} lacks, but BE_{LOC} is still dispensable in certain contexts (e.g., in ‘small clause’ complements, cf. *I want that printer in my office*, or in newspaper headlines, cf. *Bush in Paris*), and its semantic contribution remains hard to distinguish from that of the accompanying PP, apparently acting as the real predicate, which explains why the subjects of BE_{LOC} may denote individuals or events depending on whether the following PP is Locative or Temporal, cf. (2).

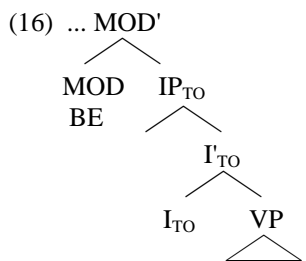
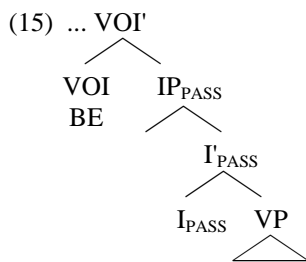
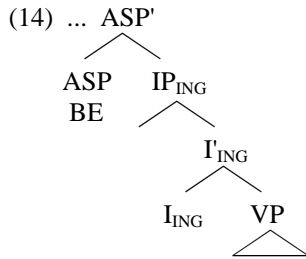
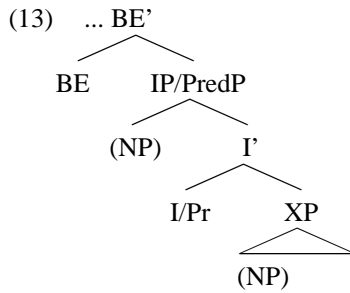
As a matter of fact, BE often seems to function as a necessary tense-carrier for non-verbal predicates, cf. (12a, b), or as an aspectual or voice auxiliary (BE_{AUX} hereafter) of participial VPs, cf. (12c, d), but, in either case, cannot yield well-formed sentences at all in non-elliptical contexts unless such predicates accompany it, cf. (12e).

- (12) a. **Edward* ___ *handsome/a lawyer/from Edinburgh*.
 b. **Edward* ___ *in London*.
 c. **Edward* ___ *working for Microsoft*.
 d. **Edward* ___ *employed by Microsoft*.
 e. **Edward is/was/has been/may be* ___.

This follows if BE_{COP}, BE_{LOC}, and BE_{AUX} are by themselves unable to assign a semantic function to their surface subject, whose thematic role seems entirely determined by the predicates following BE, and has justified treating BE_{COP}, BE_{LOC}, and BE_{AUX} as a ‘functional’ verb of the ‘raising’ type and analysing its complement as a saturated XP, according to the XP-Internal Subject Hypothesis (XPISH, hereafter, cf. Sportiche, 1988). Under XPISH, BE_{COP}, BE_{LOC}, and BE_{AUX} do not even connect the subject and the real predicate, a link established thematically inside the lower XP. Furthermore, although XPISH is compatible with assigning to the complements of BE the categories they seem to have at surface level, i.e., AP, NP, DP, or PP in e.g. (1-2) and VP in (3-4), Bowers (1993; 2001) gives reasons to assume that the XP complements of BE_{COP} are always dominated by an IP-like phrase (his ‘PredP’, where Pred may be phonetically null). It is less clear whether the same applies to the complements of BE_{LOC}, but as to the VPs following BE_{AUX}, they must be IPs if the treatment of verbal inflection under Checking Theory is to be uniform, and assuming that analysis has a welcome corollary, i.e., that if such I’s, like Tense, have EPP features, cyclic ascension of the subject *via* their specifiers follows directly. The same analysis extends naturally to ‘auxiliary BE’ in its future (BE_{FUT}, hereafter) and modal use (BE_{MOD}, hereafter), as in (5-6), under the natural assumption that I in the IP complement of BE may also contain TO, as it does after modal OUGHT. Thus, unifying the C-selection feature of BE_{COP}, BE_{LOC}, BE_{FUT}, and BE_{MOD} (= IP, in all cases) makes them structurally indistinguishable,

² Whether BE is really a verb is controversial. Chomsky (1955[1975]: 278; 426 ff.; 1957: 67; 1965: 102,107), for example, did not treat it as such. Of course, inflectionally it is, and the richest one in the language at present, and when it is not accompanied by other verbs its verbal status is hard to deny, but real verbs are never dispensable, have descriptive content (i.e., describe states of affairs), and require arguments to which they assign thematic roles and often Case, and, in all such respects, most instances of BE are not too verb-like, but some are, which suggests that the BE paradigm, as note 1 announces, spells out different lexemes.

yields an elegant syntax, accounts for certain systematic exceptions to the Law of Coordination of Likes³, and simplifies the lexical entry of BE. The relevant general structure is (13), which applies directly to BE_{COP} and perhaps BE_{LOC}; figures (14), (15) and (16) show BE_{AUX}; figure (16) shows BE_{FUT/MOD}.



When BE is used as an auxiliary, it may also appear in constructions like (7-8) in which the subject of the VP seems to surface *in situ*, instead of raising to spec TP, cf. (17-18a) vs. (17-18b), with an expletive *there* directly inserted in Spec TP in order to satisfy the EPP feature of Tense.

(17) a. *There is a young lady waiting in your office.*

b. *A young lady is waiting in your office.*

(18) a. *There were several hooligans arrested by the police.*

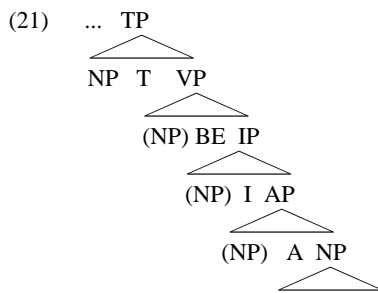
b. *Several hooligans were arrested by the police.*

Assuming that in the b) cases BE_{AUX} c-selects an IP, as in (14-15), the a) cases constitute strong support for XPISH, as the subject seems to be spelt out in Spec VP in them. Under XPISH, the natural analysis is to assume that the subject, for some reason, does not raise out of its VP and a dummy *there* is,

³ By making category differences between e.g., surface AP, DP and PP complements of BE_{COP}, as in *Muriel is beautiful, a brilliant photographer, and from an aristocratic family*, invisible to coordination (= inaccessible inside IPs) provided the coordinates are homogeneous enough to project unifiable roles onto a common subject, cf. Bowers (1993; 2001).

therefore, inserted in Spec TP in order to satisfy the EPP feature of T. As a matter of fact, BE_{COP} and BE_{LOC} allow the same construction in certain cases⁴, cf. (19) and (20), which argues for the same c-selection features (= IP) and deep structure, i.e., (13), for all types of BE so far discussed. The relevant (abbreviated) structure must be (21), where (NP) stands for successive traces/copies of the ascending NP eventually landing in Spec TP. It follows that BE cannot assign exceptional Case to the NP *in situ* in (17a), (18a), (19b) or (20b), or the raising of the NP to Spec TP, e.g., in (19a) or (20a), will constitute a Case Filter offence, as the NP will receive both exceptional Case from BE and nominative Case from T in Spec TP. If (17-20a, b) derive from the same source, the only issue is what determines the choice between the expletive and NP-raising options. Under minimalist assumptions, inserting expletive *there* should be computationally cheaper than raising the NP, so e.g. (19-20b) should be preferred and (19-20a) ungrammatical unless some other factor overrides Economy in such derivations.

- (19) a. *New anti-depressants are available.*
 b. *There are new anti-depressants available.*
- (20) a. *Some textbooks are in the seminar room.*
 b. *There are some text-books in the seminar room.*



To my knowledge, the preceding analysis of BE has become standard. It entails that BE_{COP}, BE_{LOC}, BE_{AUX}, BE_{FUT}, and BE_{MOD} all have a complement of sorts, an IP with I = \emptyset /ING/PASS/TO, but BE is considered essentially a functional category and does not assign a thematic role (or Case) to its complement. The former property unifies all such types of BE and makes them less verb-like; the latter does not matter if predicates, even if nominal (i.e., NP or DP), do not need Case, which seems right in English (but not e.g. in German)⁵.

3. *Be* as the only predicate: absolute, existential and identificational uses of *Be*

When BE is the only predicate, i.e., in its absolute, existential, and identificational uses, as in (9), (10) and (11) above, respectively, the preceding analysis, obviously, does not apply. From a semantic point of view, such are also the more robust and ‘verb-like’ kinds of BE, for in such contexts, there being no other source of thematic roles for the nominal argument(s) that depend on it, BE must assign one (or two) thematic roles, but what role(s) it assigns is unclear; they do not fit into any of the well-established categories (Agent, Causer, Instrument, Experiencer, Theme, Goal, etc.) and have not been well investigated, to my knowledge. On the other hand, how nominal arguments of BE get their Case assigned/licensed in those circumstances also needs attention, for BE is not transitive and is not assumed to be a Case-assigner.

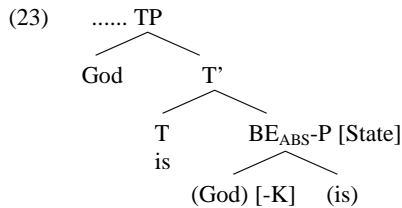
BE in its ‘absolute’ use, as in (9), BE_{ABS}, hereafter, is stative, monadic, predicates the unconditional existence of a specific entity, cf. (22), presumably assigns to it the role of Existing Entity, c-selects a very restricted class of definite DPs or proper nouns like *God*, and apparently behaves as an unaccusative verb, i.e., it fails to assign Case, so its only argument must raise to Spec TP to satisfy EPP and license nominative Case, and necessarily becomes the subject of the clause.

⁴ Not in all, though. Stage-level predicates like *available* or *in the seminar-room* are allowed, but individual-level ones are not, cf. *One of my neighbors is professor of physics at Stanford/a top scientist* vs. **There is one of my neighbors professor of physics at Stanford/a top scientist*.

⁵ Under Chomsky’s (1986) ‘visibility’ explanation for the need of Case at LF, predicates must also be visible. Assuming that Case *stricto sensu* is applicable to nominals only, whereas verbs are made visible by their inflections, when the predicate under IP is a DP/NP (e.g., *Thomas is a famous doctor*) it should get Case, and since it names a class of entities, Nominative is to be expected, as in German, cf. *Thomas ist ein berühmter Arzt*. In English, how a *famous doctor* becomes visible at LF if copular BE has the analysis assumed above needs careful investigation not undertaken here.

- (22) a. *God is.*
 b. **There is God.*
 c. **A solution/cafeteria is.*
 d. *There is a solution/cafeteria.*

Under minimalist assumptions, there is no issue as to whether the definite DP is initially in complement or specifier of BE_{ABS}, it is just the verb's sister, so the structure of BE_{ABS} constructions should be simply (23), where [-K] marks a Case-less position and round parentheses indicate the site of the initial copies of the verb and its argument.



Semantically robust is also ‘pure existential BE’ (BE_{EX}, hereafter), as in (10), another state verb that, in this case, takes an indefinite NP complement, cf. (24), with an unspecified thematic role (Existing Individual/Event, perhaps) and is not supposed to assign Case to it, in early Case Theory, at least, cf. e.g., Chomsky (1981; 1986) or Burzio (1986).

- (24) a. *There was a gigantic traffic jam.*
 b. **There was the gigantic traffic jam.*

According to Burzio’s Generalization, only heads that project a thematic role onto their specifier assign Case to their complement; otherwise, so-called ‘unaccusative’ (Burzio’s ‘ergative’) verbs have an empty specifier at D-Structure, their complement is a Theme, but lacks Case *in situ* and must license it through association with some other position in which Case is licit, typically *via* movement into Spec TP (e.g., passives), where nominative is licensed by Tense. The raising of the NP complement of an unaccusative verb, in turn, is possible only if Spec VP is empty (i.e., non-thematic) at D-Structure, which happens in passives and unaccusative verbs like *die*, *fall*, *occur*, etc., whose deep-structure complements have subject-like properties and agree with the verb.

As a matter of fact, BE_{EX} largely satisfies unaccusativity tests; its specifier does not seem to be a thematic position, since what surfaces in Spec TP is only expletive *there*, by assumption a non-referential DP that cannot discharge a theta role. However, whereas typical unaccusatives like *die* allow/force their complement to ascend blocking the insertion of the expletive, cf. (25a-b), BE_{EX} does the opposite, cf. (25c-d).

- (25) a. *A policeman died.*
 b. **There died a policeman.*
 c. **A gigantic traffic jam was (on the M4).*
 d. *There was a gigantic traffic jam (on the M4).*

The, by assumption, Case-less NP complement of BE_{EX}, therefore, cannot license its Case via movement into Spec TP. On the contrary, since Chomsky (1986), at least, the standard view as to how it satisfies the Case Filter is roughly this: the complement of BE_{EX} forms a chain with its ‘associate’ *there*, an expletive inserted in Spec TP that contributes its nominal (N, D) category (to satisfy the EPP feature of T) and has nominative Case, whereas the Case-less NP complement of BE_{EX} contributes the number feature that *there* lacks⁶ and the theta role assigned by BE_{EX}. In this way, the chain {*there*, *a gigantic traffic jam*} has exactly one Case-marked link (= *there*), which makes the chain ‘visible’ at LF, and one Theta-marked link (= *a gigantic traffic jam*), which makes it interpretable at LF, and satisfies the Chain Condition (cf. Chomsky

⁶ Observe that whereas expletive *it* is singular, the number feature of expletive *there* is inherently unspecified and inherits its value from that of a lower NP, cf. *There is a restaurant*, vs. *There are three restaurants*.

1981), or the principle of Full Interpretation (cf. Chomsky 1986 and subsequent minimalist work). A pure expletive like *there* would violate Full Interpretation at LF; hence, an interpretable NP must form a chain with it (raise and adjoin to it at LF, overwrite it at LF, etc.)⁷. In successive versions not worth distinguishing here (Chomsky 1986: 135-137; Chomsky 1991: 154-156; Chomsky 1992: 200; Chomsky & Lasnik 1993: 66-67, etc.) such accounts have become the standard solution to the Case problem of the complement of BE_{EX} and remain common in P&P textbooks (cf. e.g., Haegeman & Guéron 1999: 510). For our immediate purposes here, what they share is the hypothesis that BE_{EX} (like all other types of BE so far discussed) does **not** assign Case to its NP complement.

Yet, the closest equivalents of BE_{EX} in related European languages are object-taking and Case-assigning verbs like German (*es*) *geben*, or Spanish *haber*, cf. (26) and (27), where agreement suggests that the complements have object-like, rather than subject-like properties, the NP is subject to the Definiteness Effect (cf. Belletti 1988), and Case on the NP seems to be accusative, a flagrant counterexample to Burzio's Generalization, apparently.

(26) a. *Heute gab es einen Unfall.*

b. **Heute gab es ein Unfall.*

c. **Heute gaben es drei Unfälle.*

(27) a. *Hoy ha habido varios accidentes.*

b. [*Otros días no hay accidentes, pero*] *hoy los ha habido.*

c. **Hoy han habido varios accidentes.*

Belletti (1988), however, offers evidence that in existential constructions the complement has inherent partitive Case, not accusative, as suggested by the regime of French *il-y-avoir* (*de X*), and explains the Definiteness Effect as a consequence of the fact that partitive Case entails the interpretation 'some ((instance)(s)) of' and is incompatible with definite and universally quantified NPs, cf. (28b), an idea that Lasnik (1992: 384; 1995: 618) pursues in a minimalist framework.

(28) a. *There are some/several/many/ten original manuscripts.*

b. **There are (all) the original manuscripts.*

If BE_{EX} does indeed assign partitive Case, of course, (25c) is immediately accounted for: since the complement of BE_{EX} is Case-marked *in situ*, raising it to Spec TP is unnecessary (hence, violates Economy-Greed), and leads to a Case Theory offence, as the NP chain accumulates two incompatible Case values (i.e., partitive in origin and nominative in Spec TP). That explains why the NP complement of BE_{EX} cannot raise, enforcing insertion of expletive *there*, whereas BE_{COP}, BE_{LOC}, BE_{AUX}, BE_{FUT} and BE_{MOD} all allow the subject of their IP complements to raise to Spec TP, as well as non-raising variants with expletive *there* insertion.

Chomsky (1995: 273, 287-288) also claims that it is the indefinite NP that contributes nominative Case, as well as number, to the chain, but does not accept Belletti-Lasnik's analysis of BE_{EX} as a Case-assigning verb. The Case attribute of the indefinite NP is, in Chomsky's view, directly valued by T, which, acting as a probe with an unvalued number attribute, searches into its c-command domain until it finds the closest NP that has a valued one and an unvalued Case, so that the NP can value the unvalued number attribute of T and T, in its turn, can discharge its nominative Case feature onto a suitable NP target. When the search reaches the NP, the relevant values are exchanged between probe and goal by some kind of unification, the unvalued, and therefore uninterpretable, attributes are replaced with valued ones in both T and the NP, and the NP's Case and Visibility needs are satisfied at LF (where Case is checked in minimalist theory). Thus, in Chomsky's minimalist account the complement of BE_{EX} still gets Case, but not from the expletive, directly from Tense, and the Case is nominative, not partitive. Consequently, under Economy, it is not Case that triggers the ascension of the NP at LF, but the unsatisfied selection feature of the expletive (an LF affix, or a D c-selecting an NP, depending on versions) and the relevant Economy principle is Enlightened Self Interest rather than Greed, as Lasnik (1995) observes.

⁷ The technical details as to why the NP must raise to the expletive at LF vary; initially, the NP adjoins to the expletive; in later minimalist versions, *there* is an LF affix that demands an NP, or a D that c-selects an NP, as in Chomsky (1995: 342; Lasnik 1995). Such implementation choices have little empirical significance and will be treated here as mere variants of essentially the same idea.

The advantage of Chomsky's proposal is that it avoids the awkward consequence that in cases of subject raising like (17b), (18b), (19a) and (20a) the NP chains are doubly Case-marked, partitive by BE (under ECM) when the NP is under it, and nominative by T in Spec TP, a problem that could alternatively be avoided, if unconvincingly, only by declaring partitive Case marking optional, cf. Belletti (1988).

Yet, there are reasons to be sceptical of all versions of Chomsky's successive analyses, all based on the idea that the NP gets Case from a distant associate, be it *there* (the Expletive-NP chain analysis in e.g. Chomsky 1986) or directly T, as in Chomsky (1995, 1998, 1999) and subsequent minimalist work, and assume that BE_{EX} assigns Case to its complement, in spite of the fact that BE_{EX} as a Case-assigner would still seem to be irreconcilable with Burzio's Generalization.

Under the Expletive-NP chain account, the reasoning involved is straightforward: if *there* in a Case-licensing Spec TP can save its indefinite NP 'associate' in a lower Case-less position, as Chomsky's explanation claims, it should save it irrespectively of which Case-less position the NP is in. Alternatively, if T, acting as a probe, can search for and locate the closest Case-less NP in its c-command domain and assign nominative to its unvalued Case feature, it should also be able to do so wherever the closest NP is. Yet, neither expedient suffices in (29-32), where, unless the indefinite NP raises to Spec TP overtly, the derivation fails⁸.

- (29) a. *A woman might soon become CEO of Microsoft.*
 b. **There might a woman soon become CEO of Microsoft.*
- (30) a. *A teacher has seen the accident.*
 b. **There has a teacher seen the accident.*
- (31) a. *A student seems to be injured.*
 b. **There seems a student to be injured.*
- (32) a. *A new strategy seems necessary/in order/a must.*
 b. **There seems a new strategy necessary/in order/a must.*

Under the standard view that movement, to the extent it entails Search, Agree, Copy, Pied-Pipe, Merge, and deletion of redundant features, cf. Chomsky (1995; 1998; 1999), is a costlier computational option than the insertion of an expletive, if *there* or T sufficed to remedy the Case deficit of its 'associate' NP/Goal, the derivations, (29a), (30a), (31a) and (32a) should be blocked as uneconomic, and (29b), (30b), (31b) and (32b) should be right, but that is exactly the wrong result. If, on the contrary, movement were cheaper than the insertion of expletive *there*, existential constructions like (33a) should be ungrammatical, and (33b) should be correct, but, again, that also turns out to be the wrong result; (33b) is excluded just as (25c) was.

- (33) a. *There was an accident (on the M4).*
 b. **An accident was (on the M4).*

Thus, assuming that the expletive in Spec TP, or T directly, suffices to save the Case deficit of the NP leads to the wrong results, and, on the contrary, if neither *there* nor T intervene and it is BE_{EX} that directly assigns Case to its NP complement, the right predictions follow for existential cases like (33a).

That BE_{EX} assigns Case is corroborated by examples in which the NP that needs Case is not even its complement and cannot receive a theta role from it, a fact that contradicts Belletti's (1988) claim that partitive Case is inherently (rather than structurally) assigned. As Lasnik (1992: 396) observes, BE can even 'exceptionally Case-mark' across an IP boundary. Crucial confirmation of the role of BE_{EX} as a Case-licenser comes from sentences in which BE is followed by progressive or passive IPs, cf. the well-formed (34) and (35) vs. the ungrammatical (36) and (37).

⁸ Certain speakers of Belfast English accept some such patterns in the absence of *be*, and expletive subjects with would-be nominal associates occur with 'presentational' verbs like *arise*, *emerge*, *occur*, etc., and are much more widespread in e.g., Scandinavian, cf. Vikner (1995). Obviously, statements made here are meant to be relevant of standard English, only.

- (34) a. *There was a thug waiting for her the whole night.*
 b. *There has been a thug waiting for her the whole night.*
 c. *There must have been a thug waiting for her the whole night.*
- (35) a. *There were many students arrested by the police.*
 b. *There have been many students arrested by the police.*
 c. *There must have been many students arrested by the police.*
- (36) a. **There has a thug been waiting for her the whole night.*
 b. **There must a thug have been waiting for her the whole night.*
- (37) a. **There have many students been arrested by the police.*
 b. **There must many students have been arrested by the police.*

Clearly, in the grammatical cases (34-35), the NP is not an object of BE and cannot receive a theta role from it; on the contrary, under the XP-Internal Subject Hypothesis, *a thug* and *many students* must satisfy the thematic requirements of *wait* and *arrest*, respectively, which rules out Belletti's (1988) approach. As to Chomsky's Expletive-NP hypothesis or his later T-probe one, they can account for (36-37), but only as violations of Economy, i.e., in (34-35), *a thug* and *many students*, respectively, stay in Spec VP, as Economy dictates, whereas in (36-37) they have been unnecessarily raised into an intermediate higher specifier. However, since no NP movement (and no Economy offence) occurs in (29-32), such cases remain unexplained.

Apparently, everything fits if BE_{AUX} is also a Case assigner and can license Case on an NP, even if it is not its own complement, but the specifier of its IP complement, under the ECM (Exceptional Case Marking) principle. Since BE_{COP}, BE_{LOC}, BE_{FUT} and BE_{MOD} also allow non-raising variants, cf. (38), the generalization seems to be this: whenever *there* occupies Spec TP, the unlicensed Case feature of the 'associate' NP causes the derivation to fail unless the NP directly follows a form of BE⁹; hence, BE must generally be a Case assigner. The only difference between BE_{EX} cases like (24) and BE_{AUX} cases like (34-35) or BE_{COP}, BE_{LOC}, BE_{FUT} and BE_{MOD} like (38a-d) would seem to reside in that BE_{EX} c-selects an indefinite NP and directly Theta-marks and Case-marks it (partitive), whereas all the latter c-select an IP, as shown in figures (14-16) above, and exceptionally Case-mark its specifier.

- (38) a. *There are new anti-depressants available.*
 b. *There is somebody on the roof.*
 c. *There is a course to start on Monday.*
 d. *There is a theory to explain some of the facts.*

Unfortunately, that seems to lead straight into a fatal contradiction, for (34-35), as well as (38), have perfectly grammatical NP-raising alternatives in which the subject of *waiting* or *arrested* (similarly, *available*, *on*, *start*, and *explain*, in 38a-d, respectively) has happily reached Spec TP, cf. (39-41). Leaving aside the fact that the subject should not raise to T unnecessarily if a closer head (i.e., BE) can license its Case and expletive *there* insertion can more cheaply satisfy EPP, if the subject does raise from a Case-marked position into another, Case Theory should be violated, but apparently it is not, since the examples are perfect.

- (39) a. *A thug was waiting for her the whole night.*
 b. *A thug has been waiting for her the whole night.*

⁹ Or a few 'presentational' verbs like *arise*, *emerge*, *occur*, etc. that may be considered aspectually enriched, dynamic, alternatives to BE_{EX}, i.e. verbs that express the emergence of new states of affairs (achievements), rather than their mere existence, but such cases are of marginal interest here.

c. *A thug must have been waiting for her the whole night.*

- (40) a. *Many students were arrested by the police.*
 b. *Many students have been arrested by the police.*
 c. *Many students must have been arrested by the police.*
- (41) a. *New anti-depressants are available.*
 b. *Somebody is on the roof.*
 c. *A course is to start on Monday.*
 d. *A theory is to explain some of the facts.*

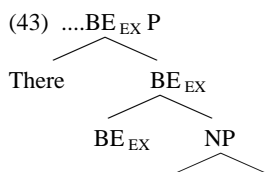
The puzzle is this: if BE_{EX} takes an NP complement in an expletive *there* construction and assigns partitive Case to it, the alternative NP-raising version is blocked by Case Theory and Economy, as expected, cf. (33a-b), whereas in expletive *there* constructions like (34), (35) and (38), where BE_{EX} must exceptionally Case-mark the NP, the NP-raising alternatives (39), (40) and (41) are perfect, which entails that BE_{EX} does **not** exceptionally Case-mark the subject of the IP.

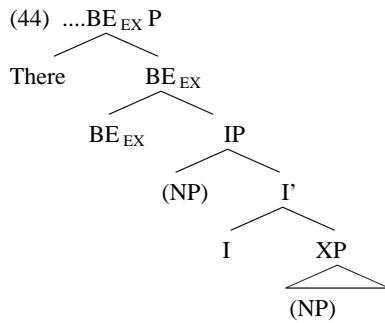
However, the contradiction arises only under the assumption that *there* versions (34), (35) and (38) and NP-raising versions (39), (40) and (41) derive from **the same** underlying structure, have the same type of BE, and differ only in the way EPP/Case is satisfied. If, on the contrary, we assume that expletive *there* versions have BE_{EX} whereas NP-raising ones have other types of BE (i.e., BE_{COP}, BE_{LOC}, BE_{AUX}, BE_{FUT} or BE_{MOD}) no contradiction arises. Of course, it follows that the non-raising and raising alternatives are built from different lexical arrays containing different BE homonyms with distinct meaning, argument structure, and Case properties, as well as NPs with different Case values to be licensed by BE_{EX} and Spec TP, as the case may be. In particular, if nominals enter derivations with all their features on, as in Chomsky (1995), an NP may be expected to reach Spec TP if it is inserted with nominative Case and to stay under BE_{EX}P or its IP complement and be licensed by BE_{EX} (directly or *via* ECM) if inserted in whatever other Case BE_{EX} assigns/licenses, say partitive, if Belletti (1988) and Lasnik (1992; 1995) are right. Unfortunately, that morphological contrast cannot be observed in grammatical examples, since the only nominals that have overt Case are personal pronouns (*he/him*, etc.), which are definite and independently excluded by the Definiteness Effect, cf. (42a) vs. (42b).

- (42) a. **There has been he/him using the lab (cf. He has been using the lab).*
 b. *There has been someone using the lab (cf. Someone has been using the lab).*

If not only (33), but also (34), (35) and (38) contain BE_{EX} it is necessary to allow BE_{EX} to alternatively c-select **both NP and IP**, and, in the latter respect, it will resemble all other types of BE so far discussed. On the other hand, it is necessary to account for the fact that only BE_{EX} assigns Case, structurally in (33), exceptionally in the remaining cases, and reconcile that fact with Burzio's Generalization.

Let us, therefore, assume that, in cases like (33a), the relevant structure is (43), whereas in (34), (35) and (38) the structure is (44), and that *there* is **not** an expletive directly inserted in Spec TP, but an **argument** in Spec of BE_{EX} that must raise to Spec TP to satisfy EPP. Obviously, on top of BE_{EX}P there may be auxiliaries, as in (34b-c) or (35b-c), but the cyclic ascension of *there* from Spec BE_{EX}P through the Spec IPs/VPs generated by the presence of auxiliaries will leave traces/copies of *there* in such specifiers and make them unable to lodge any other ascending NP, even if that NP could legitimately ascend (which it cannot, as its Case feature is licensed by BE_{EX}). Therefore (36) and (37) cannot arise, simply because Spec BE_{EX}P is never empty, a third reason (apart from Case Theory and Economy), why (33b) is impossible.





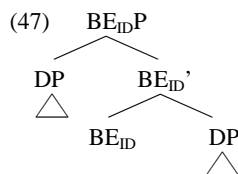
In existential constructions, thus, *there* and the NP are two different arguments of BE_{EX} and must have their role and Case features independently licensed; the NP is not the ‘associate’ of *there* and cannot form a chain with it, or the chain will violate both Case and Theta Theory at LF. The indefinite NP gets partitive Case from BE_{EX}, directly or exceptionally, but *there* does not, and must ascend to Spec TP to get nominative Case or to the specifier of some IP complement of a V, P or Comp that may exceptionally assign to it objective Case, cf. (45).

- (45) a. *We expect there to be additional funds.*
 b. *The project depends on there being additional funds.*
 c. *For there to be additional funds would be marvellous.*
 d. **There to be/being additional funds would be marvellous.*

Under this analysis, BE_{EX} is no longer a counterexample to Burzio’s Generalization¹⁰, since it has a thematic specifier filled by an argument, *there*. Of course, *there* is a restricted argument, but it is not alone in the language: so is ‘weather *it*’ in *It rains*. As to the thematic roles assigned by BE_{EX}, *there* seems to be Locative, and its NP complement might be Existing Entity/State of Affairs, depending on how delicate the typing of thematic roles is. The meaning of BE_{EX} is similar to that of BE_{ABS} (i.e., ‘exist’), but whereas BE_{ABS} expresses unconditional existence, BE_{EX} claims existence in a certain interval of space/time, through Locative *there* (a former deictic, after all), or, in cases like (38b), by *there* augmented with a Locative PP predicate inside IP.

Finally, forms of BE can be used as a dyadic state verb selecting two (reversible) DPs of which it predicates identity in cases like (11) above, repeated in (46). ‘Identificational BE’ (BE_{ID}, hereafter) projects a structure like (47) and must assign two thematic roles, Identifier and Identified, to its complement and its specifier, respectively, as well as Case to its complement.

- (46) a. *That gentleman is the Dean/Mr. Harris.*
 b. *The Dean/Mr. Harris is that gentleman.*



As English preserves so little overt inflection, the Case BE_{ID} assigns to its complement can only be directly observed when the complement is a personal pronoun, and in such circumstances it is preferably accusative, the unmarked value in the English Case system (not partitive, since the DP shows no Definiteness Effect), as in (48). In German or Spanish, however, the complement gets nominative, cf. (49).

- (48) a. *Who’s that? It is me/*I.*

¹⁰ A possible exception to Burzio’s Generalization, though, is the verb *strike*, as in *She strikes me as lacking in personality/unusually worried about appearances/a blue stocking*, etc., where the verb is dyadic but has no thematic specifier and *she* receives a thematic role from *lacking*, *worried*, and *a blue stocking*, respectively.

b. *Mr. Harris? That's me/*I.*

(49) a. *Ich war der erste Präsident/*den ersten Präsident; der erste Präsident war ich (*mich).*

b. *Yo fui el primer presidente; el primer presidente fui yo (*me, *mí).*

4. Summary

The preceding analysis diverges considerably from standard ones in important respects, the main one being that no attempt is made to unify different uses of BE under a unique lexeme or derive different BE constructions from lexical arrays containing such a lexeme. On the contrary, although BE_{COP}, BE_{LOC}, BE_{AUX}, BE_{FUT}, BE_{MOD} and even BE_{EX} all c-select an IP, as shown in structures (13-16) above, they still differ considerably among themselves, as well as from uses of BE as a main predicate. The present approach can, thus, be dubbed lexicalist, but not merely stipulative, hopefully, as there is substantial evidence that the forms of the BE paradigm spell out more homonymous lexemes than is commonly assumed.

To start by the obvious, BE_{ABS}, BE_{EX} and BE_{ID} are different lexemes: BE_{ABS} c-selects just one definite, and highly restricted, DP to which it assigns no Case, whereas BE_{EX} may c-select an IP but also an indefinite NP to which it assigns partitive Case, and BE_{ID} is dyadic, selects two definite DPs, and assigns accusative Case to its complement. Their syntax, thus, differs considerably, but so do their meaning (i.e., unconditional existence, vs. spatially-restricted existence, vs. identity, respectively), and the theta roles they assign (presumably Existing Individual, vs. Existing Entity/SoA, vs. Identifier + Identified, respectively).

Second, meaning-wise, there is little doubt that, in their turn, BE_{FUT} and BE_{MOD} also differ between themselves enough to be considered different lexemes, even if both select IP, too. Significantly, if the standard ‘zeugma test’ (Gapping version) is applied to coordinate clauses containing one of them each, the result is deviant, cf. (50a), where the first clause contains BE_{FUT} and the second BE_{MOD}, or (50b), where they appear in the opposite order.

(50) a. **The course is to start tomorrow and the students ___to register before today at noon.*

b. **The students are to register before today at noon and the course ___to start tomorrow.*

As to BE_{COP}, BE_{LOC}, and BE_{AUX}, they again share the c-selection feature (IP), assign no Case, and their semantic differences might seem elusive (‘be of class AP/NP’ vs. ‘be in spatial/temporal region R’ vs. ‘be [the case] process in progress/resultant SoA’?), if not merely induced by the predicates in their IP complements, rather than by the BE forms themselves, and, on such grounds, they are not usually considered separate lexemes. However, if the ‘zeugma’ test (again, in its Gapping version) is applied to pairs of coordinate clauses with different selections of BE_{COP}, BE_{LOC}, and BE_{AUX} in them, the results are anomalous, which suggests that they, too, are different lexemes after all, cf. (51).

(51) a. **Janine is French/a stripper, and her sister___ in New York. (BE_{COP} + BE_{LOC})*

b. *Janine is French/a stripper, and Jean Luc ___ a great wine-expert. (BE_{COP} + BE_{COP})*

c. **Janine is a stripper, and Jean Luc ___very hungry. (BE_{COP} + BE_{COP})*

d. **Janine is French/a stripper, and Jean Luc ___ working at Renault. (BE_{COP} + BE_{AUX})*

e. **Janine was offered a job, and Jean Luc ___ very happy/a lorry-driver. (BE_{AUX} + BE_{COP})*

f. *Janine was sacked, and Jean Luc ___ transferred to Marseille. (BE_{AUX} + BE_{AUX})*

g. **Janine was sacked, and Jean Luc ___ working at Renault. (BE_{AUX} + BE_{AUX})*

h. **Janine was in Paris, and Jean Luc ___ transferred to Marseille. (BE_{LOC} + BE_{AUX})*

i. **The family residence is in Exeter, and the wedding ___ in July. (BE_{LOC} + BE_{LOC})*

j. *The family residence is in Exeter, and the wedding ___ near Exmouth. (BE_{LOC} + BE_{LOC})*

Chart (52) summarizes the properties of the homonyms of BE identified in the preceding discussion.

(52)	BE _{COP}	BE _{LOC}	BE _{AUX}	BE _{FUT}	BE _{MOD}	BE _{ABS}	BE _{EX}	BE _{ID}
Meaning	∈ class	be in/at	be	future	obligation	existence	exist (space-time)	identity
Adicity	1	1	1	1	1	1	2	2
C-selection	IP, I=∅	IP, I=∅	IP I=ing I= pass	IP, I = to	IP, I = to	DP, +def	NP, - Def / IP	DP, +def DP, +def
S-selection	SoA	SoA	SoA	SoA	SoA	Indiv.	There, indiv./SoA	Indiv. Indiv.
Def. Effect	no	no	no	no	no	no	yes	no
Theta Roles	Ex-SoA	Ex-SoA	Ex-SoA	Ex-SoA	Ex-SoA	Ex-Indiv.	Loc, Ex-Ind /SoA	ID-er, ID-ed
Case-Lic.	no	no	no	no	no	no	partitive	accusative
NP-Raising	yes	yes	yes	yes	yes	yes	no	yes
Expletive	no	no	no	no	no	no	yes	no

Observe, however, that differentiation of homonyms might have to go even further, as BE_{COP} might well correspond to two different lexemes, depending on whether it is followed by an individual-level or a stage-level predicate. Thus, (51b), where both clauses contain individual-level predicates, produces no zeugmatic effect, but (51c), with one individual-level and one stage-level predicate, is odd. Also, in view of (51i, j), BE_{LOC} needs splitting into BE_{LOC} and BE_{TEM}, and, as (51g) is also odd, BE_{AUX}, surely needs splitting into BE_{PROG} and BE_{PASS} selecting IP_{ING} and IP_{PASS}, respectively, although such additional lexemes are omitted in (52).

Of course, settling the fine lexicological details as to how many different homonymous BE lexemes there are and their properties would require more systematic investigation (with neutralization of pragmatic factors) than is possible in this paper, and is not my real purpose. However, what little has been explored of the meaning, adicity, selection, thematic roles, and Case properties of the uses of BE exemplified in (1-10) above suggests that the BE paradigm spells out at least lexemes like BE_{COP}, BE_{LOC}, BE_{TEM}, BE_{AUX (PROG/PASS)}}, BE_{FUT}, BE_{MOD}, BE_{ABS}, BE_{EX}, and BE_{ID}, with subtle, and not so subtle differences among them. Therefore, the prevailing tendency to play down the role of BE, and especially to unify all types of BE selecting IP, although it seems to optimize the syntax, leads to inconsistencies in the analysis of existential constructions. On the contrary, distinguishing a dyadic BE_{EX} c-selecting either NP or IP, making *there* its second argument, and letting BE_{EX} (but not any of the monadic types of BE) assign Case to the indefinite NP that follows it solves serious inconsistencies in Case Theory and in earlier analyses of ‘existential constructions’.

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