There Is Secondary Predication in
There-Existentials

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1. Introduction

A well-known contrast involves the fact that while non-verbal predicative expressions such as APs and count bare singulars may occur in typical predicative positions, as shown in (1), they are barred in existential there-sentences, as shown in (2).

(1) a. She was happy.
   b. She is professor of philosophy at Yale.

(2) a. *There was happy. 2
   b. *There is professor of philosophy at Yale.

As McNally (2006) remarks, an analysis that captures the failure of non-nominal property-type expressions and bare singulars to appear in there-existentials must resort to a syntactic constraint requiring the postverbal expression to be a DP. This, McNally (2006:7) writes, “is unattractively ad hoc given that in other contexts (such as copular constructions) acceptability depends on semantic type rather than on syntactic category”. Moreover, the fact that unlike bare singulars bare plurals are not barred in the there-construction, as in (3), adds to the complexity of the matter, since (existential) bare plurals are arguably the plural counterparts of bare singulars in that: (i) semantically they denote properties (i.e., they are expressions of type <e,t> – see Kallulli 1997a,b, van Geenhoven 1998, among others); and (ii) syntactically they are not DPs with a morphologically null D 0 but NPs altogether lacking a D-layer (Kallulli 1997a, 1997b, 1999a, 1999b, 2006a).

(3) There are professors of philosophy at Yale.

While, as matters stand, McNally’s point is indeed a valid one, the goal of this paper is to provide an analysis that converts this unattractive adhocness into a motivated requirement. That is, I will insist on the idea that the postverbal expression in existential there-constructions, if not a full DP (with a null D), is at least larger than an NP. Crucially however, I contend that the reasons for this are structural. Specifically, I argue that the constraint requiring the postverbal expression to be (something like) a DP has to do with the position in which the postverbal constituent has been (externally) merged, namely as the subject of a (secondary) predicate. This claim is thus reminiscent of Stowell’s (1978) Small Clause analysis, but the analysis that I will outline here differs from it in several important ways.

This paper is organized as follows. In section 2, I summarise some of the main previous approaches to there-existentials and some major problems they face. Then in section 3 I present my analysis, which though resurrecting Stowell’s (1978) analysis differs from it in several respects. Finally in section 4 I discuss certain important ramifications of my main contentions.

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2 The restriction in (2a) vs. (1a) does not relate to a human subject constraint: It was messy vs. *There was messy.
2. Previous approaches to the existential there-construction

Though the literature on the there-existental construction in modern linguistics is prolific (for a thorough overview see Hartmann, forthcoming) with the topic having served as the testing grounds of many a theory, most substantial studies can be classified into two types of approaches, namely what one could refer to as ‘there’-insertion approaches on the one hand and ‘there’-as-part-of-predication approaches on the other.3 These two types of approaches differ mainly with respect to: (i) whether there-existentials are derived from (the same base as) their respective counterparts without there but with an indefinite expression (either singular or plural) – see for instance (4a) and (4b); and (ii) the (lack of) content they ascribe to the element there.

(4) a. There is a man in the garden.
   b. A man is in the garden.

As the term suggests, there-insertion approaches assume that sentences like (4a) are derived either from sentences like (4b), or that they share a base structure. The element there is under these accounts a genuine expletive devoid of meaning and its sole function is to fill the subject position (in conformity with the Extended Projection Principle). In contrast, under the other type of approach there has sufficient content enabling it to take part in a predication relation (i.e., to serve as an argument or as a predicate, depending on the theory).4 Moreover, under these latter approaches sentences like (4a) are not necessarily derivationally related to sentences like (4b).

Abstracting away from details of specific implementations, there-insertion approaches of different varieties share at least two sets of problems. First, they are not able to account for the ungrammaticality of a sentence like the one in (5c) (as opposed to the grammaticality of (5a,b)) without extra stipulations such as appeal to the case-filter (Chomsky 1991, which crucially relies on Belletti’s 1988 assumption that partitive case must be assigned in a V0-related position of an unaccusative verb or the verb ‘be’),5 principles such as Procrastinate (Chomsky 1995), merge-over-move (Chomsky 2000), or language-particular transformations such as ‘Th/Ex’ (Chomsky 2001).6

(5) a. A man seems to be in the room.
   b. There seems to be a man in the room.
   c. *There seems a man to be in the room.

Secondly, as Hartmann (forthcoming) points out, there-insertion approaches fall short of considering two striking facts, namely that (i) the PP in there-existentals is optional, as shown in (6a,b), and (ii) that there cannot normally be left out, as shown in (7a,b).7

(6) a. There is a dinosaur (at the zoo).
   b. There are dinosaurs (at the zoo).

(7) a. *A dinosaur is.
   b. *Dinosaurs are.

4 Note however that also under the there-insertion analysis in Chomsky (1991) there is claimed to have some content, but crucially, not enough to stand on its own; it is seen as an (LF) affix that needs an NP-associate (at LF).
5 Belletti’s assumption faces both theoretical problems (Lasnik 1992) and empirical ones (de Hoop 1992).
6 A related issue concerns the obligatoriness of the copula in sentences like ‘I consider there *(to be) a solution’.
7 However, in certain contexts, such as in (i) uttered during a visit to the zoo, sentences (7a,b) are actually fine.

(i) SPEAKER A: There’s nothing in that cage.
SPEAKER B: (No,) DI-nosaurs are / a DI-nosaur is. [with a pitch accent on DI – V. Manfredi, p.c.]
‘There’-as-part-of-predication approaches on the other hand fare better with respect to these issues. Two main (complementary) views can be distinguished among such approaches. According to one view, there is a predicate (e.g. Moro 1991, 1997, Hoekstra and Mulder 1990). According to the other view, the postverbal NP is a predicate and there is a subject (e.g. Williams 1994, Hazout 2004).

2.1. ‘There’ as a predicate

Moro (1991, 1997) argues that there is a predicate originating in a small clause configuration with the postverbal DP being its subject, as in (8).8

\[
\text{(8) NP IP there I' VP}
\]

Moro’s analysis straightforwardly accounts for some properties of there-existentials, including the ungrammaticality of (5c), which as mentioned earlier could not be accounted for without additional stipulations under there-insertion approaches. Specifically, from the small clause complement of the embedded \( V^0 \) either the NP (a man) or there may move to the (embedded) subject position. Consequently, due to successive cyclicity only the item that moves first may move further up.

Also, the contrast between the sentences in (6) and (7) is not a problem, since under Moro’s analysis they are not derived from a common structure.

Other aspects of the behaviour of there-existentials that Moro’s analysis can account for concern long-distance agreement facts, as in (9), and the fact that neither there-existentials nor predicate inversion sentences are possible in a small clause configuration without be, as in (10) and (11), respectively. Specifically, there and the postverbal NP start off in a local relationship (i.e. they agree in \( \Phi \)-features), which there takes to the subject position to establish agreement with the verb.

\[
\text{(9) There seems/*seem to be a man in the room.}
\]

\[
\text{(10) Mary believes there *(to be) a picture of the wall in the room.}
\]

\[
\text{(11) Mary believes the cause of the riot *(to be) John.}
\]

In spite of its appeal, Moro’s analysis is not without problems. For instance, it predicts that the existential there-construction patterns with locative inversion constructions (as the latter also involve predicate inversion). However, as discussed in Hartmann (2005), the two constructions behave differently under wh-movement, as shown in (12) through (17).9

\[
\text{(12) a. What do you think the cause of the riot was t?}
\]

\[
\text{b. *Which picture do you think the cause of the riot was t?}
\]

\[
\text{(Moro 1997:123)}
\]

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8 The idea that there is a predicate is also argued for in Hoekstra and Mulder (1990), the main difference between the two implementations being that while Moro takes there to be an NP, Hoekstra and Mulder take it to be a PP.

9 The asymmetries with respect to wh-movement are discussed in detail by Moro himself. However, as Hartmann (2005) points out, Moro’s explanations of these phenomena are shaky upon closer scrutiny.
(13) a. *?What kind of mushrooms do you think on these trails can be found? (Bresnan 1994:87)
   b. *Which picture of a politician do you think that on this wall hung?

(14) a. ??Which actors were there in the room? (Heim 1987:27)
   b. What is there in the refrigerator? (Aissen 1975:7)
   c. How many men do you think that there were in the room? (Moro 1997:126)

(15) *Which wall do you think the cause of the riot was a picture of? (Moro 1997:124)

(16) *Who do you think on this wall hung a picture of?

(17) Which wall do you think there was a picture of? (Moro 1997:124)

2.2. ‘There’ as a subject

As mentioned earlier, a different view on there-existentials dating as early as Jenkins (1975) maintains that the postverbal expression in them is a predicate and there is the subject of predication. Strong arguments for this view were presented in Williams (1994) and Hazout (2004), whose specific implementations differ somewhat. While Williams (1994) argues that there is a base-generated subject and the predication relationship is not local (with the latter ingredient accounting for the long-distance agreement facts in (9)), for Hazout (2004) there is merged as the subject of a complement-to-\(V^0\) small clause, which subsequently moves to the clausal subject position, as depicted in (18).

(18) IP
    NP \[Φ\]
      \(\text{there}\)
    \(t^0\)
    VP
      \(\Phi\)
      be
        NP \[Φ\]
          \(\text{there}\)
        PrP
          Pr\(^0\)
          NP/Φ/
            \(\text{many problems}\)

Williams (1994) presents four types of arguments for his view (see also Williams 2006): some based on the locality and occurrence of predicate nominals; one based on scope (namely the postverbal NP exhibits narrow scope, as in (19), where the scope relations are \(\text{must} > \text{seem} > \text{nothing}\)); some based on extraction (predicates are less extractable than arguments, as in (20)); and one based on ellipsis (the postverbal NP can be elided, which for Williams means that it is a predicate, as the contrast between (21) on the one hand and (22)-(23) on the other show).

(19) In order for the illusion to work, there must seem to be nothing in the box.

(20) a. *Who do you wonder why there was at the party? 
    b. *How many people do you wonder why there was?

(21) *[What John is] is callous and what Mary is, is too. (Williams 1994:135)

(22) [What John is] is amazing and what Bill is is too. (Williams 1994:135)

(23) We thought there would be a lot and there were.
While the approach in Williams (1994) and Hazout (2004) is able to overcome the shortcomings of other approaches, including the *wh*-extraction patterns pointed out in section 2.1 (for details, see Hartmann 2005), under these analyses there are two remaining problems. First, as Williams (1994) himself notes, his analysis cannot account for why *there* and the postverbal NP cannot occur without *be* in sentences like (24b), whose matrix predicate can combine with a small clause, as shown in (24a).

(24) a. I consider a man (to be) a liar.
   b. I consider there *(to be)* a man (in the room).

Secondly, if *there* is a subject, it is not clear why a sentence like (2a) is ungrammatical, given that the adjective here is a predicative expression on a par with the postverbal NP in a sentence like (4a).

Hazout (2004) suggests that the ungrammaticality of sentences like (2a) is due to the fact that (unlike *it*) *there* needs to agree with the complement of the small clause head in number and since adjectives are not specified for number in English, constructions like (2a) are ruled out. Though appealing at first sight, Hazout’s proposal cannot however be the real solution to this problem, since in languages with productive count bare singulars such as Norwegian, not only adjectives but also bare singulars, which as such are specified for number (i.e. they are morphologically distinct from bare plurals) as in (25a), are precluded from counterpart constructions of *there*-existentials in this language, as shown in (25b) (examples from Kallulli 1999a).

(25) a. Hun kjøpte (en) bil. (Norwegian)
   ‘She bought a car.’
   b. Det er / kommer *(en) mann på veien.
   ‘There is / comes a man on the road.’

We are, thus, back at the problem introduced in section 1, which the present paper set out to solve.

3. Yet another Small Clause analysis of *there*-existentials

3.1. The proposal

The core ingredients of my analysis of *there*-existentials are the following.

First, I contend that the element *there* does not originate inside a small clause but is a genuine subject (i.e. merged in the clausal subject position, in line with Williams 1994). Relying on Kratzer (1995), I maintain that *there* identifies the (Davidsonian) event argument, which is the external argument merged in Spec,vP (see also Ramchand 1996).

Secondly, unlike Williams (1994), I contend that the so-called copula *be* is in fact the head of the predication phrase (here vP) with predication being local.

Thirdly, I take the postverbal nominal and the PP to form a small clause. More specifically, following the implementation in Stowell (1978) and Hazout (2004), I take the postverbal nominal to be merged in the specifier of this small clause. Consequently, *there*-existentials involve secondary predication. I submit moreover that in spite of appearances to the contrary – see (26) and (27) – it is precisely this secondary predication that provides the stage-levelness necessarily involved in *there*-existentials (Kratzer 1995). In other words, secondary predication is also involved in (26) and (27) albeit in an implicit manner. Thus, (26) asserts the existence of certain things in a certain location specified by the context, at a specific time. Similarly, (27) has an implicit locational attribute, namely something like: *in the set of natural numbers.*

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10 See also Marantz (1993) and Chomsky (1995) for the idea that real arguments are merged in specifier positions.
11 Following Kratzer, I do not commit to the precise nature of the event argument; it may not be an event argument but just an argument for spatio-temporal location (see also Felser and Rupp 2001).
(26) There were ants, dogs and all sorts of things.

(27) There is an infinite number of primes.

Hence, stage-levelness may be defined in terms of secondary predication, the latter providing the temporal or locational anchoring necessary for the former. Furthermore, the PP within the small clause may be either overt or implicit. Note that the idea that the PP is syntactically present even though it may be elided is in line with Williams (1994), who argues that predicates but not arguments can be elided.

Finally, if we want to maintain a principled mapping between syntax and semantics, then subjects, as saturated structures (Strawson 1959, Chung and Ladusaw 2004), cannot be NPs, APs, or other <e,t>-type expressions. In other words, the constraint that the postverbal nominal expression be different from an NP, AP or other predicative expression is under my account imposed by structural constraints relating to the (external) merging position of arguments. And while the distinction between specifiers and complements does not have any theoretical status under most current versions of Minimalism, the basic intuition around it is still present in various forms, such as the priority of checking of complement-related (versus specifier-related) features (e.g. Sternefeld 2006), or implementations of anti-locality principles (e.g. Abels 2003), and therefore still important in linguistic theorizing.

In sum, I take (28) as the structure of there-existentials.12

(28)

\[
\text{there} \quad \text{is} \quad \text{a tree} \quad \text{in the garden}
\]

On the basis of a variety of facts (involving clitic doubling, adjectival modification, etc.), count bare singulars are not DPs with a morphologically null D but NPs altogether lacking a D-projection (Kallulli 1999a,b). Properties of bare singulars such as their invariable narrow scope, their non-specific interpretation, and others discussed in my previous work, are thus straightforwardly accounted for. Crucially for the case at hand, in Kallulli (1999a) I point out that: (i) even in languages where bare singulars may occur as direct objects, as was shown in (25a) for Norwegian, they cannot serve as subjects of secondary predicates, as is shown in (29a) versus (29b,c); and (ii) while direct objects may be instantiated by bare singulars, subjects and datives cannot.

(29) a. *Hun kjøpte bil ny. (Kallulli 1999a: 111)
   she bought car new
   ‘She bought a car new.’

   b. Hun kjøpte bilen ny.
      she bought car.the new
      ‘She bought the car new.’

   c. Hun kjøpte en bil ny og en annen brukt.
      she bought a car new and a other used
      ‘She bought a car new and another used.’

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12 The reason why the postverbal DP must occupy the specifier of the small clause and not, say, Spec of VP in (28) is that in certain languages, the counterparts of there-existential constructions may contain a (non-selected) dative, as in the German example *Es geht mir ein Bub da* (lit. ‘There goes me a boy there’), merged in Spec of VP.
I have thus provided both theoretical and empirical arguments against McNally’s (2006) claim that the syntactic constraint requiring the postverbal expression in *there*-existentials to be a DP is *ad hoc*. Moreover, my analysis also accounts for the remaining open question in Williams (1994) and Hazout (2004), namely why *there* and the postverbal expression cannot occur in a small clause configuration without *be* as was shown in (24b); predication is under my account local, with *be* its head and *there* its subject.

3.2. Tying up loose ends

Williams (1984) brings up the example in (30) against Stowell’s (1978) analysis (which my analysis is reminiscent of, in spite of the fact that unlike Stowell’s mine is not a *there*-insertion one).13

(30) *There was a friend of mine an imposter. (Williams 1984: 132)

However, predicate nominals such as the above are individual-level predicates and, as such, they are ruled out with *there*-existentials on independent grounds (i.e., only stage-level predicates have a Davidsonian event variable; see Kratzer 1995).

What is slightly more problematic is the fact that the occurrence of adjectives in *there*-existentials seems to be much more restricted than the occurrence of PPs, as in (31).

(31) a. *There are firemen hungry.
   b. *There was a child happy.

However, in spite of this contrast, adjectives are not altogether barred from *there*-existentials. Specifically, deverbal ones are fine, as the examples in (32) show.

(32) a. There are firemen lost.
   b. There was a child drowned.

The contrast between the sentences in (31) and those in (32) is in need of explanation for any existing approach to *there*-existentials. The fact that deverbal adjectives are fine in *there*-existentials seems to provide some sort of indirect evidence for Kratzer’s (2000, 2005) distinctions within the class of stative adjectives, which in turn might relate to the (Davidsonian) event argument, an issue which I will however leave open here. But the contrast under discussion is real, and this is crucial.

Another concern that the present analysis highlights bears on the impossibility of combining several ideas that have been argued for independently. According to one view (Kratzer 1995), only stage-level predicates have a Davidsonian event argument, and *there*-existentials involve stage-level predication, as mentioned earlier. According to another (Chomsky 1995, Kratzer 1996), the external argument is introduced by a VP-external functional head (little v for Chomsky, *Voice* for Kratzer). However, if (as widely held) *there*-sentences are unaccusatives then one of these ideas is in need of further qualification. While Chomskian and Kratzer relate their external argument view to the semantic role of agent or causer (Chomsky 1995 explicitly states that unaccusatives are VPs that lack the vP layer), across languages there are unaccusatives with overt (dative) causers. In Kallulli (2006b) I have argued on the basis of such data that while the external argument may indeed be licensed by a VP-external head, it is not the case that unaccusatives are exclusively VPs lacking this VP-external (here v) projection (contra Chomsky 1995 and possible interpretations of Kratzer’s 1996 core idea).

Likewise, the question how the analysis that I have proposed accounts for the long-distance agreement facts in (9) is legitimate. In view of the fact that a sentence like the one in (33) is also acceptable (which to the best of my knowledge has gone unnoticed in the literature so far), the idea that it is the verb (raising) that carries the agreement features (forward) is suggested.

13 Though my analysis does not relate sentences such as in (6) to those in (7), it can be supplemented to do so should this be desirable (especially in view of the fact that the sentences in (7) are indeed fine in certain contexts, as was pointed out in footnote 7).
(33) There seems to be (some) men in the garden.

Moreover, in view of the paradigm in (34), I submit that ’s in (34c) is actually a clitic form not of is (i.e., be) but of has, on a par with e.g. French il y a or Spanish hay and many other languages such as Albanian, Bulgarian, Greek, Hebrew and even varieties of German, to mention but a few. If so, then this is a strong argument for the subjecthood of there.

(34) a. There are students in the room.
   b. *There is students in the room.
   c. There’s students in the room.

4. Ramifications

An immediate consequence of my analysis is that, unlike count bare singulars, bare plurals cannot be NPs (not even under their existential interpretation), since as was shown in (3) they may occur in there-existentials. However, if my claim in Kalluli (1999a) and later work that existential bare plurals are the plural counterparts of count bare singulars is correct, then existential bare plurals cannot be DPs either, since we still need to distinguish their (semantic and syntactic) properties from those of generic bare plurals, which are arguably DPs with null D-heads (for discussion of this point, see Kalluli 1999a).

I relate the possibility of bare plurals to occur in there-existentials to the existence of a functional layer (responsible for number) above the NP (see also Beyssade and Dobrovie-Sorin 2005). In other words, (existential) bare plurals are Num(ber)Ps, potentially corresponding semantically not to properties, but to sums of individuals (i.e. variables), as in Dobrovie-Sorin and Mari (2006).

Similarly, mass nouns, which like existential bare plurals and unlike count bare singulars may occur in there-existentials (e.g. There is oil on the floor), cannot be NPs, but must be at least NumPs, on a par with existential bare plurals. And as is well-known, mass nouns and bare plurals share the property of cumulative reference (Quine 1960), which in my account underlies NumP syntax, as in this sense a mass noun is lexically or inherently plural (Chierchia 1998a). (It also follows that I take weak determiners, which are licit in there-existentials, to be merged inside this NumP.) By claiming that for a nominal constituent type to function as an argument it just needs to be a NumP, I have rejected Longobardi’s (1994) claim that D is crucial for argumenthood (cf. also Chierchia 1998b).

To conclude, the reason why the postverbal expression in existential there-existentials cannot be a count bare singular is that it is not an argument (i.e. NumP), as constraints on predication require. Adjectives are also ruled out, as they do not have a NumP in their extended projection.

References

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