

The syntax and argument structure of existentials

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1. INTRODUCTION

Existentials belong to a group of constructions which are generally called NOMINAL PREDICATES in typology (Payne 1997) or PREDICATIVE NOUN PHRASES¹ in formal syntax (Moro 1997). They have been frequently investigated, in particular in relation to the DEFINITENESS EFFECT they undergo (Milsark 1974; Bentley 2004, 2013) or in terms of the presence or absence of an explicit verbal marker such as the COPULA. In general, most of the works on nominal predicates argue that the copulative marker associated with these constructions is semantically empty (Jespersen 1924), leading to the interpretation of the nominal constituent as their predicate and/or to their analysis in terms of SMALL CLAUSES.

This paper will present a syntactic analysis of existentials which differs from those previously proposed. It will show that the valency or argument structure of these constructions cannot be one which derives from an interpretation of the NP or the PP as a non-verbal predicate, but that both the NP and the PP often associated with existentials behave as arguments, or semi-arguments, in such structures.

The work begins by considering existential constructions in relation to other nominal predicates (section 2); our approach takes a synchronic typological perspective, therefore comparative data from different languages are provided in order to discuss their cross-linguistic properties (section 3). The paper then proceeds to examine previous syntactic analyses of existentials, in particular some proposals from Relational Grammar and Generative Syntax (section 4). Finally, we will present our analysis on the argument structure of existentials based on the syntax-semantics interface (sections 5-8).

2. TERMINOLOGY AND TYPOLOGY

In the typological literature existentials are one of the predicate nominal constructions discussed, amongst others, in Payne (1997). To underline their pragmatic function, some linguists include them among PRESENTATIVE structures (Hetzron 1975; Lambrecht 1994), that is, structures used to introduce new participants in discourse.

We sustain that it is useful to present existentials in relation to other predicate nominals as Payne (1997) does, that is, as one among various types, although his typology is provided as “an impression rather than an empirical proven fact about languages” (Payne 1997:113). Payne suggests that “predicate types can ... be arranged along a continuum based on how likely they are to lack a semantically rich lexical verb” (Payne 1997:113), as Table 1 shows:

¹ Working mainly on Italian, Moro (in particular 1993, 1997, 2006a, 2006b) also uses the term ‘copular clauses’ for predicate nominals, considering mainly existentials and equative clauses. Dryer (2007) uses the term ‘nonverbal predicates’ in his cross-linguistic study of various clause types.

“most likely to lack
a semantically rich verb”

“not very likely to lack a
semantically rich verb, but still may”

Predicate nominals (equative, proper inclusion) >	Predicate locative, adjectives (attributive ²) >	Existentials >	Possessive clauses >	Locomotion clauses
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Table 1: Predicate types (Payne 1997: table 6.1:113)

In the continuum represented in Table 1, Payne considers existentials as being half way between constructions lacking a semantically rich verb and those likely to have one. Therefore they are not considered among the typical constructions with a semantically empty verb such as equative clauses. In addition to Payne, there is another useful typology to consider although not directly related to existentials; this is Stassen’s (1997) typology of intransitive predicates³. His book presents these types according to their encoding strategy distinguishing them on the basis of the predication semantic class each type expresses:

- (1) Typology in terms of the encoding strategy (Stassen 1997):
 - a. Event (intransitive verb) → verbal strategy (V)
 - b. Property (pred. adjective) → no prototypical strategy of their own – takeover (V/N/L)
 - c. Class (pred. nominal) → nominal strategy (N)
 - d. Location (locative expression) → locational strategy (L)

(1) shows that predicate nominals are considered types of intransitive constructions. There are four types of intransitive predicates; to the intransitive predicate that expresses events (1a), the following are added: the property or adjective type which has no prototypical encoding strategy of its own (1b), which therefore takes over a strategy of a different type, either verbal or nominal or locational, the class type having the prototypical nominal strategy (1c), and the location type having the locational strategy (1d), while the verbal strategy is prototypical only of intransitive verbal constructions. This means that the four types will be prototypically encoded as in (1’):

- (1’)a. John works as an engineer
- b. John is happy
- c. Ivan uchítel’ (Russian)
John teacher
John is a teacher
- d. Nèke na ker (Niger-Kordofanian, West-Atlantic)
be-at INDIC house

² ‘Attributive’ is to be intended here as predicative. However, we will maintain the former term, as Table 1 is a citation from Payne (1997).

³ It could be argued that Stassen (1997) did not discuss existentials and that his analysis is thus not relevant for these clauses. However, he does not discuss existentials specifically simply because he supports the hypothesis that these constructions are different only as far as the definiteness/indefiniteness distinction is concerned, stating that he <<eliminated this parameter by restricting the data base to intransitive main clauses which have definite subjects ... As a consequence, existential sentences will not figure in a systematic way in the examples and the analyses presente>> (Stassen 1997:11). In this sense Stassen’s study also plays a role in the analysis of the encoding strategies of existentials (see above).

He is at home (Stassen 1997:58 (66))

In (1'.a), as expected, the intransitive verb is used; in (1'.b), an example of the property or adjective type, there is a special verb, the copula, and thus in this case a verbal strategy is applied; in (1'.c) we have a juxtaposition of nominals, or the application of a nominal strategy, while in (1'.d) there is a locative support verb, that is the application of a locational strategy. Existential constructions are not considered a different type according to Stassen, but belong to the locational type and differ from them only in terms of the definite/indefinite interpretation of the subject argument (Stassen 1997:10)⁴. Interestingly, each type can undergo shared versus split or takeover encoding. Accordingly, we can distinguish between share- and split-languages; we have a share-language if the encoding strategy for locational predications is (or can be) used also for nominal predications, and a split-language “if the encoding strategies for the two constructions must be different” (Stassen 2011). While English is an example of a share-language, Spanish is a split-language, as the examples in (2) show⁵:

- (2)a. Julia es enfermera
Julia COP.3SG.PRES nurse
Julia is a nurse
b. Julia está en Barcelona
Julia be.3SG.PRES in Barcelona
Julia is in Barcelona (Stassen 2011, (2a,b))

The split state of a language can also involve “a contrast between a full supporting verb for locational predication and the absence of any overt linking item (a “zero copula”) for nominal predication, as in Mokilese (an Oceanic language spoken in Micronesia):

- (3)a. John johnpadahk-mer
John teacher-INDEF
John is a teacher
b. ih mine Hawaii
he be Hawaii
He is in Hawaii (Stassen 2011, (4a,b))

As for the takeover strategy, this is realized whenever “we can document instances of languages in which a given category X is encoded by a strategy which is prototypical for some other category Y” (Stassen 1997:29). In many languages the predicate adjective applies the verbal strategy, that is, a copula is used, but there are also languages in which a nominal strategy is used, as in Gude, a Chadic language spoken in Nigeria and Cameroon:

- (4)a. gusə nə minə
short SUBJ woman
The woman is short
b. nwənwu nə Kwali
chief SUBJ Kwali

⁴ Stassen is not the only linguist who sees a co-relation between existential and locative clauses; in addition to Bentley (2004), Freeze (1992), Moro (1997) and Beaver et al. (2006) are of the same opinion.

⁵ Abbreviations: ABS=absolutive; ADESS=adessive; ART=article; CL=classifier; cho=chômeur ; COP=copula; D=dummy; GEN=genitive; exp pron=expletive pronoun; INDEF=indefinite; INDIC=indicative; LOC=locative; NOM=nominative; P=predicate; PRES=present; PRT=particle; SG=singular; SUBJ=subject.

Kwalii is a chief (Dryer 2007, (18a,b))

In (4) no copula is used with the adjectival or nominal predicate, but rather a sequence of either the adjective + noun, or of noun + noun, as is prototypical of nominal predicates.

To return to existential clauses, if nominal predicates of any kind are classified only in terms of their encoding strategies, we can argue with Stassen (1997) that locative and existential clauses, no matter which strategy they undergo, belong to the same type, and that whenever a different strategy is applied, it is due to the split encoding within the same type. The next step is therefore to check whether existentials can be classified as a variant of locative predicates. The following section will discuss the properties and behaviour of both locative and existential clauses.

3. CROSS-LINGUISTIC DATA

Let us now consider the range of cross-linguistic variation in locative and existential clauses. In European languages, we typically find constructions as in English:

- (5)a. There is an apple on the table
- b. *‘There is the apple on the table’
- (6)a. The apple is on the table
- b. An apple is on the table

As (5) suggests, the so-called DEFINITENESS EFFECT, that is the impossibility of having definite nominals cooccurring with existentials, applies in English, while in (6) such a restriction does not apply. However, we also find languages showing no definiteness effect with existentials, as in Italian:

- (7) C’è il sole/Maria/il professore
- ?‘There is the sun/Mary/the teacher’

In (7) we have an acceptable sentence with different kinds of definite nominals, both proper names and specific common nouns, but also nouns that are semantically definite⁶ such as ‘the sun’. It should also be noted that existentials do not need locative obliques; in these cases, according to Payne (1997), we have instances of ‘pure’ existential clauses. The fact that existentials may not have a locative oblique can be interpreted as evidence that such a construction is not a subtype of locational clauses, but a typical predicate nominal construction in its own right and with its own semantics.

The copulative verb form *be* is not the only option for expressing existentials also in Romance languages, as (8) shows for French:

- (8) Il y a des pommes sur la table
- ‘There are some apples on the table’

In (8) another possible encoding for existentials, given by the verb form *have*, is realized. This proves the relationship between this construction and a possessive meaning, as suggested by the scale in Table 1 by Payne (1997; also Clark 1978; Creissels 2010). This relation between existential and possessive clauses is present in a number of typologically different languages, for example, in Finnish:

⁶ See Leonetti (2008) for an analysis of the definiteness effect in Romance languages in cases similar to those above.

- (9)a. Pekalla on auto
 Pekka.ADESS be.PRES.3SG car.SG.NOM
 Pekka has a car
 b. Kadulla on auto
 street.SG.ADESS be.PRES.3SG car.SG.NOM
 There is a car in the street

We can surmise that such behaviour provides further evidence in favour of a difference both in semantic and syntactic terms of locative and existential clauses, in that not only do we have a different encoding here but also a different relation which excludes locative clauses while conceptually linking existentials to the notion of possession.

Other examples of the split encoding strategy in locative and existential constructions is shown in Mandarin Chinese (Payne 1997:122, 124):

- (10) shū zài zhuō-zì shàng
 book be.at table on
 ‘The book is on the table’
 (11) yǒu yī-běn shū zài zhuō-zì shàng
 exist one-CL book at table on
 ‘There is a book on the table’

The locative clause in (10) is given by the copulative/adposition form *zài*, while the verb *yǒu*, also used in possessive structures, is present in the existential structure in (11). It should be noted that the difference in the latter is not only in terms of a verb *yǒu* versus a particle/adposition *zài*, but also in terms of the syntactic sequence: in (11) we have an obligatory initial position for the verb determined by the indefinite NP, while in (10) we have the more frequent SVO structure with a definite topic, typically a subject, in initial position. The difference is not only restricted to the two constructions, but is also due to the general constraint in Chinese to have only definite information in initial position in all sentences.

In contrast, an extreme case of shared strategy is shown in Mangarayi, a language of the Gunwinguan group, spoken in Northern Australia:

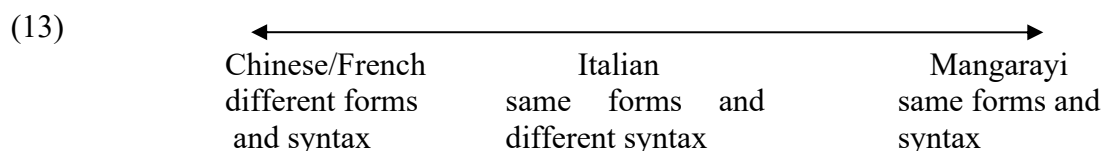
- (12) mawuj ja-Ø-ni biyanjin na-bongan
 food 3-3SG-be inside LOC-box
 ‘There is food in the box’; ‘the food is in the box’ (Dryer 2007, (60))

In this language the same morphology and syntax applies both in the existential and the locative interpretation of (12), which means that it is the linguistic and extra-linguistic context that determines its meaning. This can be interpreted as one piece of evidence of the relation, as far as the encoding strategy is concerned, between locative and existential clauses. However, here there is no definiteness effect working to differentiate the two structures syntactically⁷

⁷ Another interesting case of shared strategy is discussed in Creissels (2013). He shows that “in many languages, it is impossible to recognize a construction really distinct from the locational predicative construction that would meet the conditions for being analyzed as an existential construction. For example, Welsh has no dedicated existential predication, and the construction *mae N Loc*, identifiable as locational predication, is also used in contexts in which other languages tend to use a special existential construction” (Creissels, 2013:11). We may quote here Creissels’ example (ex. (7)):

(a) Mae ‘r car yma
 is the car here

On the basis of all the data we have presented, it appears that it is more appropriate to view the two constructions as not being the same but rather as determining a continuum both semantically and syntactically (Mereu 2011). At one extreme there are languages such as Mandarin Chinese with two very different structures for locative and existential predicates, while at an intermediate point in the continuum we have languages such as Italian which uses the two constructions invariably as far as the identifiability problem is concerned, but maintains two different syntactic sequences. At the other extreme there is Mangarayi which has a single construction to express the two related meanings. The cline in (13) can express this continuum⁸:



Having shown the range of variation both within the single existential construction and in relation to the locative construction, it is now important to examine their syntactic structure as this will enable us to discuss the valency of existentials. To propose a syntactic analysis of existentials, locative and equative constructions need to be reexamined.

4. SYNTACTIC ANALYSIS OF EXISTENTIALS

In descriptive terms existentials include the following elements:

- (14) exp pron/Ø⁹, COP/V/Ø/PRT, NP (PP)

The commas indicate that the elements in (14) may not be in the order presented. The first element generally corresponds to a lexically realised expletive pronoun (exp pron) such as *ci* in Italian¹⁰ or *there* in English, but there are languages with nothing in the pre-copulative position. Instead of the copulative verb *be*, we have already seen that there are languages that use the verb *have* and also verbs meaning ‘sit’, ‘stand’ or ‘lie’, as (15) shows for Diyari, a Pama-Nyungan language spoken in Australia:

- (15) wiḷa marapu ŋama-yi ŋura-ŋi
 woman many.ABS sit-PRES camp-LOC
 There are many women in the camp (Dryer 2007, (51))

Existentials can also have the absence of any marker as in Tolai, an Austronesian language of New Britain in Papua New Guinea, as in (16):

-
- ‘The car is here.’
 (b) Mae car yma.
 is car here
 ‘There is a car here.’

The only difference between (a) and (b) is the indefinite marking of the NP in the existential clause in (b).

⁸ Given (13) we can say that sentence (12) in Mangarayi is semantically ambiguous, as it does not distinguish the two meanings either in form or in the syntax.

⁹ The null element before the copulative form in languages with no lexical expletive as in Chinese existentials can be interpreted as a phonetically unrealized or empty expletive pronoun (Ø) in formal syntax. In languages such as French the expletive pronoun *il* is followed by the clitic *y*, whereas in Italian, as we will see, there is only the locative pronoun since null elements are not phonetically realised in this language. See note 11 and section 5 for our interpretation of the *ci* form.

¹⁰ As we will argue in section 5, *ci* in Italian should not be considered an expletive but a locative clitic.

- (16) a kilala-na-mulmulum¹¹
 ART season-LINK-hunger
 There was famine Dryer 2007, (62))

Particle (PRT) in (14) stands for any kind of nonverbal marker which is used in some languages; for example, in Cebuano, an Austronesian language spoken in the southern Philippines:

- (17) may bir
 exist beer
 There is (was/will be) beer Dryer 2007, (61))

in the initial position in (17), which is where verbs occur, there is the existential word *may*, which has none of the morphological properties of verbs.

To return to the use of a copulative form, both in the typological and the formal literature, *pace* Payne (1997), this, following Jespersen (1924), is considered an auxiliary bearing the agreement and TAM features, but with no predicate value, while the expletive forms, in those languages in which they occur, are considered signposts for nominal phrases or for the predicate. This absence of a verbal predicate can also be extended to all those languages which have no verbal marker at all.

It is therefore important to see which element can perform the predicate role in these constructions. Let us now consider which syntactic analyses have been proposed for existentials in previous studies of nominal predicates. We shall start with the formal approach expounded by Moro (1993, 1997, 2006a,b).

4.a Moro's proposal¹²

In his works in formal syntax, Moro compares existentials with equative clauses and proposes an analysis of these structures in terms of small clauses, where a small clause is “an uninflected clausal constituent” (Moro 2006b: 212) or a reduced clause with no verbal predicate; it is a structure like [DP XP] where XP can be another DP, or a PP in existentials. Let us consider the structures he proposes (Moro 2006b: 222-3):

- (18)a. Some pictures of the wall are [_{SC} t the cause of the riot]
 b. The cause of the riot is [_{SC} some pictures of the wall t]
 (19) [There_i are [_{SC} many girls t_i]] ... [in the garden]

In (18a), the canonical copular structure, the subject DP is raised to the position of [SPEC, IP] leaving a trace in the small clause; in (18b), a case of inverted copular clause, the predicative XP has been raised to the same position. In (19) the expletive pronoun *there* is the raised placeholder of the predicate. Moro supports his analysis by stating that the copula *be* or *essere* behaves like the quasi-copula *seem*. Let us examine what this signifies with examples from English:

- (20) Mary_i seems [_{SC} t_i the winner]

¹¹ As Dryer specifies, the existential interpretation of (16) is due to the fact that sentences in Tolai have a predicate in initial position.

¹² Moro is not the first to consider existentials in formal syntax; before him Burzio (1986) had dealt with this topic. Moro, however, criticizes Burzio's way of dealing with *there*-constructions, as the latter analyses the *ci* particle as the subject element, while Moro considers it as the placeholder of the predicate.

- (20)' It seems that [Mary is the winner]
 (20)'' Mary_i seems [t_i to be the winner]
 (20)''' Mary_i seems [t_i to be in the garden]
 (21)a. there_i is [_{SC} a cat t_i]
 b. *it is that [_{SC} a cat there]
 c. *it is that [Poldo is a dog]
 d. *Poldo_i is [t_i to be a dog/in the garden]
 e. Poldo_i is [_{SC} t_i the dog/in the garden]

Given the fact that most of the sentences in (21), which are built on the basis of the alternatives available with the verb *seem* in (20), are ungrammatical, we must conclude that *be* and *seem* have different structures. The small clause analysis is thus not valid with predicate nominals, unless we want to stipulate different constraints for the two verbs.

4.b La Fauci & Loporcaro's proposal

La Fauci & Loporcaro (1997) present an analysis in terms of Relational Grammar (Perlmutter 1983). They analyse existentials together with equative and locative sentences according to two features: [+/-argument] and [+/- predicative]. They interpret each type in the following way:

- | | | | |
|------|----------------------------------------------------|---|-----------------------------|
| (22) | C'è una gatta
There is a she-cat | → | gatta = [+arg] and [+ pred] |
| (23) | Il gatto è in giardino
The cat is in the garden | → | gatto = [+arg] and [- pred] |
| (24) | Fritz è un gatto
Fritz is a cat | → | gatto = [-arg] and [+ pred] |

(22), with only one NP, is an instance of an 'auxiliated nominal' because of the presence of the pro-form: "‘ci’ is a clitic proform appearing on the auxiliary of a nominal predicate which is also an argument" (La Fauci & Loporcaro 1997:15). Therefore this nominal would have to be both [+ pred] and [+ arg]. In (23) the same nominal is [+ arg] and [- pred], while the predicate is given by the PP. In the equative sentence in (24) the post-verbal nominal is [+ pred] and [- arg]. This means that locative and equative clauses are intransitive clauses having only one argument, that is, the pre-verbal NP; on the other hand in existentials the same nominal performs the roles of both the predicate and of an argument, and, being post-verbal, does not have all the properties of the subject; in some languages, for example, the agreement features may be underspecified. Therefore nouns in existentials behave as unaccusative predicates which means that they start as objects, rather than subjects, but that they are also predicates. In other words, for La Fauci & Loporcaro the post-verbal noun 'initializes' as an object and a predicate, then the predicate function is inherited by the form *c'è* and we have an impersonal construction.

Let us now consider the syntactic representation of (22), which, as already said, is interpreted within the Relational Grammar framework. Relational Grammar represents syntactic structure in different layers or strata according to the function-changing operations which sentences may undergo. NPs are called TERMS and are given a number corresponding to their grammatical relation; thus subjects are term 1 while objects are term 2 and predicates are P. As existential clauses contain unaccusative predicates, the NP is initially not term 1, but term 2, while the auxiliary is a P which inherits its P-initial 1. (25) is the syntactic representation of (22):

(25)		P,2
	2	P, Cho
	1	P, Cho
<hr/>		
	1	P Cho
	D	c'è una gatta

In (25) the noun starts as an object, term 2, and a predicate. There is thus an impersonal structure as the dummy (=D) or covert expletive form shows. In the second layer term 2 is assigned to the dummy subject; *chômeur* is the relation which is left as in Relational Grammar “if some nominal, N_a , bears a given term relation in a given stratum, S_i , and some other nominal, N_b , bears the same term relation in the following stratum, S_{i+1} , then N_a bears the *chômeur* relation in S_{i+1} ” (Perlmutter 1983:20). At the third layer term 2 becomes 1, then the predicate value is inherited by the form *c'è*.

Let us now look at the syntactic representation La Fauci & Loporcaro propose for an existential clause with a locative PP. The example they consider is the following:

- (26) Ci sono molti clienti nel negozio
There are many customers in the shop

which can be represented as:

(27)		2	P
<hr/>			
		P,2	Cho
	2	P,Cho	Cho
	1	P,Cho	Cho
<hr/>			
	1	P	Cho
	D	ci sono	molti clienti nel negozio

In (27) the PP starts as the predicate while the NP is an object, then the NP takes both the predicate and the argument function leaving a *chômeur* in the predicate node. At the third layer term 2 is assigned to the initial empty position while leaving another *chômeur*; at the fourth layer the object is transformed into a subject, while at the final layer the P function is inherited by the auxiliary.

Despite being an interesting proposal, La Fauci & Loporcaro’s analysis is perhaps rather too complex, being based on empty categories and on function-changing operations which do not appear to be well-motivated. In addition, one cannot see why (25) and (27) should be differentiated in terms of initial separate term 2 and P functions in the second structure, while in the first the two functions are both assigned to the same NP; this seems to be rather stipulative. With these problems in mind, a different analysis can be proposed, based on morpho-syntactic data regarding cliticization phenomena in Italian. These data will lead us to an analysis of existentials in terms of the syntax-semantics interface.

5. OUR PROPOSAL

La Fauci & Loporcaro (1997) consider predicate nominals as intransitive mono-argumental structures meaning that the postverbal NP or PP behaves as a predicate, and only the NP can be both an argument and a predicate at the same time. To verify their hypotheses we are going

(28)a. Maria è mia sorella
‘Mary is my sister’
lo=3PERS masculine or invariable clitic form
la=3PERS feminine clitic form

b. Maria lo/*la è (mia sorella)
‘Mary is it/*her (my sister)’

(29)a. Maria ha incontrato mia sorella
‘Mary met my sister’

b. Maria la/*lo ha incontrata (mia sorella)
‘Mary met her/*it (my sister)’

(30)a. Maria vuole mangiare
‘Mary wants to eat’

b. Maria lo/*la vuole (mangiare)
‘Mary wants it/*her (to eat)’

However, things are different with locative predicates as the following sentences demonstrate:

- (31)a. Maria è in giardino ci/vi=locative clitic form
 'Mary is in the garden' li=deictic locative form
 b. Maria **c'vi/*lo** è (in giardino)
 'Mary *there is'
 c. Maria è **lì**
 'Mary is there'
- (32)a. Maria dorme in giardino
 'Mary is sleeping in the garden'
 b. Maria **vi/ci/*lo** dorme (in giardino)
 'Mary *there is sleeping (in the garden)'
 c. Maria dorme **lì**
 'Mary is sleeping there'

As to the role of the copula, Mereu (2011) shows that in Italian the copulative verb can often be replaced by *stare*, and in other languages by verbs such as *sit* or *lie*, verbs which certainly have greater semantics, being thus even more predicative than the copular form.

(33)a. C'è Maria sul letto ci =expletive pronoun?
 'There is Mary on the bed' ci/vi=locative clitic form
 b. Vi/c'/*lo è Maria (sul letto)

10

- ‘There is Mary (on the bed)’
 c. **Vi/c’è** Maria **lì** (sul letto)
 ‘?There is Mary there’

The similarity of behaviour in (31)-(33) shows that the PP cannot be a predicate, as the *lo* clitic, typical of verbal predicates, is not grammatical in any of the sentences. As for the locative clitic, as we have already seen, this is considered an expletive pronoun in the literature. Ciconte (2011) shows that the form was optional in early Italo-Romance, then becoming obligatory as a marker of existentiality cooccurring with locative phrases in Modern Italian¹⁴. This means that from a stage in which *ci* once had the semantics of a full locative pronoun, it has become a grammaticalized form through its overuse, losing part of its semantic value. However, in a conversation in which somebody asks: *Chi c’è sul letto?* (Who is there on the bed?), the answer would be: *Maria c’è* and not *Maria è*; therefore the clitic still has the value of a locative pronoun, rather than being a dummy form.

The argument structure of these constructions can now be considered. Given the data above, it can be said that only equative clauses contain intransitive mono-argumental predicates, as the post-verbal NP behaves as a predicate. On the contrary, locative sentences are bi-argumental as the PP in post-verbal position is an obligatory locative argument. As for existential constructions, it has been shown here that the oblique is not a predicate, although we must now establish whether it is an argument or a circumstantial. The next section will examine this.

6. ARGUMENT STRUCTURE IN EXISTENTIALS

There is agreement both in the typological and formal literature to consider the locative PP as an adjunct. As a matter of fact, Payne (1997:123) observes that “existential constructions ... require a locational or temporal adjunct”. In formal syntax Moro (2006b:223) considers the oblique a CODA, thus an adjunct, and gives the following alternative representations to existentials:

- (34)a. [There_i are [_{SC} many girls *t_i*] ... [in the garden]
 b. There_i are [[many girls [in the garden]] *t_i*]

In (34a), in which the *there* form is the placeholder of a predicate, the locative phrase is an adjunct outside the small clause, while in (34b) it is an adjunct or modifier of the nominal head within the complex NP¹⁵.

There are undoubtedly a few syntactic tests which can provide evidence that obliques in existentials do not behave as arguments. First, the oblique can also be a non-locative expression, that is, a temporal PP as in (35)¹⁶, or a distributive expression as in (36):

- (35) Il lunedì c’è quella di letteratura
 ‘On Mondays there is the one on literature’
 (36) Per ogni tipo di gioco c’era un edificio
 ‘For every kind of game there was a building’

¹⁴ The historical development of the marker of existentiality is discussed in relation to the definiteness effect in Ciconte (2011).

¹⁵ This analysis is shared by Leonetti (2008) as well as by most of the speakers who took part in the Manchester Symposium on Existentials in 2012. See Bentley (2013) and Frances (2010).

¹⁶ The examples in Italian in this section are all taken from a corpus of semi-spontaneous spoken Italian created by Bonvino (2005) for her Ph.D. dissertation.

Secondly, they can be omitted as in:

- (37) Ci sono degli accenti incredibili
'There are some incredible accents'

Thirdly they can change position as in (35), (36), but also as in (38) determining a case of locative inversion:

- (38) In questi sotterranei c'erano le scenografie
'In these underground areas there were stage sets'

The non obligatoriness, and the possibility of changing the position, together with the semantic freedom of the oblique constituents are syntactic tests which are generally used to prove the adjunct nature of PPs. However, as Mereu (2008, forthcoming) shows, the syntactic freedom and the non obligatoriness of the oblique are not to be taken as evidence against the argumental or adjunct role of the oblique. Cross-linguistically the same behaviour can be associated with both arguments and adjuncts in many languages. Intra-linguistically one can show that the deep motivation for syntactic positions and the optionality of obliques is generally due to sentence pragmatics which applies both to arguments and adjuncts.

In Mereu (forthcoming) it is also shown that the argument or adjunct status of a nominal constituent is not particularly easy to determine. If an attempt is made to compare the same predicate in a number of works, we find rather frequently that the various analyses do not provide the same interpretation of the number and status of obliques. Indeed there is much literature on the argument realization of nominal expressions, but very little is said about how to distinguish arguments and adjuncts¹⁷, often taking the distinction for granted. Only recently has this topic started to attract attention, although only in a limited number of studies. For lack of space we are only able to touch upon the issue here, with the only aim of introducing our proposal for the argument structure of existentials.

7. ARGUMENT-ADJUNCT DISTINCTION

It is useful to start by defining both arguments and adjuncts. One can define arguments as those semantic roles that are required by the predicate, and adjuncts or circumstantials as those elements which modify the meaning of the predicate with which they are associated (Dowty 2003)¹⁸. However, this distinction is not so clear-cut as far as obliques are concerned, as observed from different perspectives and frameworks by Van Valin & LaPolla (1997), Dowty (2003) and Prandi (2004)¹⁹. All these studies support the idea that between the two categories there is an intermediate one, or rather some area in between which still has to be defined. Prandi (2004) convincingly recognizes that in some cases "the behaviour of prepositions, .., does not mark the borderline between the core of the process and its periphery" (Ibid., 257). Therefore he proposes three kinds of prepositional roles, the first belongs to the 'functional core' of a sentence and it identifies essential or argumental roles, the other two are marginal roles which can be further subdivided into 'inner' and 'outer' roles. Inner margins "though non-essential for shaping the core of the process, instrument, purpose,

¹⁷ This topic has been object of investigation ever since Tesnière (1959) and has been pursued both in formal and typological syntax. However, this has not specifically concerned obliques apart from a few exceptions (Ciconte 2013; Dik 1997; Dik et al. 1990; Merlo et al. 2006; Schütze 1995; Schütze et al. 1999; Vater 1978) in addition to the studies we refer to in section 7.

¹⁸ Dowty (2003) applies the definition above to complements and adjuncts, thus excluding subjects. This is in line with formal syntax which has always considered the subject an external argument.

¹⁹ Dik (Dik et al. 1990; Dik 1997) proposes similar distinctions within Functional Grammar which includes different levels of representations and elements such as terms and satellites.

beneficiary .. do not provide the process with an outer background, but are located inside the process, and make a peculiar contribution to its profile” (Ibid.: 272), while outer margins “frame a closed process from the outside” (Ibid.: 271) and include spatial, temporal or causal specifications. On these bases we can reformulate our semantic definitions and, in particular it seems useful to propose a different and more appropriate definition of what an argument is; in this way we draw on Jezek et al. (2014). In their account, this specifically regards complements and thus is valid for argument PPs:

Complements are included .. if they contribute to the way the verb is interpreted in the context of use. This is how we define what counts as an argument, including adverbials. In this way, we offer an empirically grounded criterion to approach the traditional distinction between argument and adjunct, which is often questionable and hard to turn into robust generalizations (Jezek et al. 2014:890).

Let us now look at Van Valin & LaPolla’s proposal whose approach will help us to present the semantic structure we hypothesize for existentials.

Van Valin & LaPolla present a three-way distinction between a) argument, b) adjunct and c) the argument-adjunct status of nominal expressions. Obliques are arguments with predicates such as *give* in the following example:

(39) Bill_x gave the book_z to Fred_y (Van Valin & LaPolla 1997, (4.17b))

whose semantic interpretation, which they call LOGICAL STRUCTURE, is:

(40) [do’(x, Ø)] CAUSE [BECOME have’(y, z)] (Van Valin & LaPolla 1997, (4.17b’)

The preposition for the recipient in (39) “can usually be predicted from the logical structure of a verb” (Van Valin & LaPolla 1997:158) and is assigned to the y argument in the logical structure segment : BECOME pred’ (y, z).

For adjuncts such as the oblique in (41):

(41) Sam baked a cake in the kitchen (Van Valin & LaPolla 1997, (4.19a))

the semantic interpretation is the following:

(42) be-in’ (kitchen, [[do’ (Sam, Ø)] CAUSE [BECOME baked’ (cake)]]]) (Van Valin & LaPolla 1997, (4.19b))

Prepositions introducing PPs of the kind in (41) are said to be “always predicative by definition, since they do not mark arguments of the verb. Since they modify the core as a whole, they take the logical structure of the verb of the clause as one of their arguments” (Van Valin & LaPolla 1997:159).

Let us now take a case in which the oblique performs the role of an intermediate category as in (43):

(43) Paul ran to the store

with the following semantic structure:

(44) do' (Paul), [run' (Paul)]) & BECOME be-at' (store, Paul) (Van Valin & LaPolla 1997, (4.21c,c'))

Here the preposition “differs from argument-marking prepositions, in that the meaning of its argument is not derived from the logical structure of the verb, and from adjunct prepositions in that it does not take a logical structure as one of its arguments; rather it shares an argument with the logical structure of the verb, in this example, Paul” (Van Valin & LaPolla 1997:160). Somehow there is less cohesion between the predicate expressed by the verb and that conveyed by the preposition in that although they both share the argument *Paul*, they are represented as being coordinate predications in the semantic structure.

8. PPS IN EXISTENTIALS

To return to existentials and the role of the oblique, let us re-examine a sentence such as (33a), repeated here as (45):

(45) C'è Maria sul letto
'There is Maria on the bed'

whose syntactic structure is the following:

(46) [*ci* è [NP] [PP]]

In (46) *ci* is the clitic which stands for the grammaticalized form of a locative pronoun, *è* is the verbal predicate, while the NP is the syntactic subject argument, and the PP is the oblique argument-adjunct. Partially in line with Van Valin & LaPolla (1997), Prandi (2004) and Jezek et al. (2014) we consider an argument-adjunct or a semi-argument as an oblique which completes the meaning of the predicate, but which can range over a set of possible semantic roles. In the case of existentials it can be a locative or any sort of temporal or other expression (as seen above), or it can also just be understood or omitted²⁰, as we saw in (35)-(38) above. Therefore we propose the following semantic structure for (45):

(47) be' (Maria) & on' (bed) (Maria)

In (47), the first part of the structure includes the predicate *be'*, which predicates the presence of Maria rather than her existence, and the argument *Maria*; the second part includes the predicate given by the prepositional element and the two arguments, that is the place on which Maria is present and Maria. In these terms, contrary to Moro's analysis, the copula is not an empty auxiliary conveying only grammatical (temporal) information, but a predicate with its argument, which is the subject, while the locative (or the temporal, or the distributive complement) is the semi-argument in the coordinated structure which corresponds to the prepositional predicate.

9. CONCLUSIONS

This paper has investigated the syntactic and argument structure of existentials by cross-linguistically comparing these constructions to other types of nominal predicates. The predicative nature of the nominal constituents in existentials, as well as in locative clauses, has been questioned and refuted on the basis of various cliticization phenomena which apply to Italian. Existentials are thus seen as Pred + NP + (PP) syntactic structures in which the

²⁰ In existentials with no PP, that is, in what Payne (1997) refers to as 'pure' existentials, we suggest that there is always an abstract space to which the existence of something is related.

post-verbal NP is the subject and the PP is a locative or other kind of oblique. Semantically the oblique is a semi-argument or argument-adjunct, not a circumstantial, in that it is required by the construction although it can be omitted.

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