Bare singulars with a ‘high quantity’ inference in Greek exclamatives

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Abstract

This thesis examines the interpretive effect of exclamatives on bare singular (count) nouns in Greek. Bare singulars are analyzed as instances of pseudo-incorporation.

(1) *I* *Merula* *ehi* *kani* *plastiki* *s'afton.*
DET Merula has made plastic.surgery at.him
'Mary has had *a* plastic surgery in his clinic.' = just one surgery (?)

Previous research has suggested that Greek bare singulars exhibit the following properties: obligatory narrow scope, restricted referential status, inability to support discourse anaphora and strictly atomic denotation.

I submit these generalizations to scrutiny and hypothesize that the interpretation of bare singular objects is sensitive to clause-type specificities. More specifically, I hypothesize that the denotational properties of Greek verb-initial exclamatives influence the interpretation of bare singulars and pseudo-incorporated constructions in the broader sense. I show with empirical evidence that in these sentences, bare singulars receive a 'high quantity' (plural-only) interpretation which seems to be at odds with the generalization that they are strictly atomic.

(2) (*Ouu!*) *EHI* *KANI PLASTIKI*[1] *s'afton* *i* *Merula…!*
INTRJ has made plastic.surgery at.him DET Merula
'(Wow!) Mary has had *a lot of* plastic surgeries in his clinic!'

Using Zanuttini & Portner's (2003) analysis of exclamatives, I argue that the 'high quantity' effect is derived as a pragmatic inference from the two distinct components of exclamative meaning (i.e., factivity and widening). My analysis shows that a number neutral interpretation of bare singulars surfaces invariably *only* in exclamatives. Yet, I show that a non-atomic reading can be licensed in declaratives/assertions, too.

Finally, I show that Greek pseudo-incorporated nouns in exclamatives standardly support anaphora and are not subject to lexical restrictions. These findings have significant implications for semantic theories of (pseudo-)incorporation.

[1] The uppercase letters indicate focus.

Contents

Abbreviations

I. in glosses

CL	clitic
COMPL	completive particle
ERG	ergative
FEM	feminine
FOC	focalized element/phrase (in appendices)
IMP	imperfective aspect
INDEF	indefinite determiner
INTR	intransitive
INTRJ	interjection
NEUT	neuter
PAST	past tense
PFV	perfective aspect
PL	plural
PRE	present tense
PRO	pronominal form
PST	past tense
SG	singular
TRANS	transitive

II. In main text

BMN	bare mass noun
BN	bare singular count noun
DP	determiner phrase
HNC	Hellenic National Corpus
N^0	nominal root
NP	noun phrase
NumP	number phrase
V	verb

1 Introduction

This thesis investigates the interpretive effect of verb-initial exclamatives on bare singular count nouns in Greek.

The sentences in (3) and (4) deploy the same lexical resources but denote different semantic objects and have different representations in the syntax.

(3) *I* *Polina* *ehi* *kerdhisi* *vravio.*
DET Polina has won prize
'Polina has won *a* prize.'

(4) (*Ouu*) *EHI* *KERDHISI* *VRAVIO*[2] *i* *Polina…!*
INTRJ has won prize DET Polina
'Wow! Polina has won *a lot of* prizes!'

(5)*(*Ouu*) *i* *Polina* *EHI* *KERDHISI* *VRAVIO…!*
INTRJ DET Polina has won prize
Intended: 'Wow! Polina has won *a lot of* prizes!'

The sentence in (3) enjoys syntactic freedom whereas the sentence in (4) requires the attraction of the verb to the left periphery. Crucially, the bare complement *vravio* 'prize' is interpreted as a 'true' singular (i.e., atomic) in (3), whereas in (4) it receives an abundance/high quantity (plural) reading. Finally, unlike (3), the utterance in (4) has a special prosodic contour with certain lengthening effects and it is accompanied by gestures and possibly interjections.

I argue that these differences are attributed to the distinct semantic-pragmatic as well as syntactic properties that drive the sentential force of each utterance as a distinct speech act: (3) is an assertion and is associated

[2] The uppercase letters indicate focus. I give a more detailed description of the intonational patterns involved in exclamatives like the one in (4) later in Part II (Sect. 3.2.2.1).

with the declarative type whereas (4) is an exclamation and is associated with the exclamative type (Collins, 2005; Michaelis, 2001). The main focus of this thesis is to investigate the source of the 'high quantity' effect in sentences like (4).

As a point of departure, I examine the semantic properties of Greek bare singulars in assertions. Previous literature has shown that bare singulars in argument position have semantic similarities to canonically incorporated nouns: obligatory narrow scope, restricted referential status, inability to support discourse anaphora and lack of number specification (i.e., number neutrality) (Borik & Gehrke, 2015) For this reason, it has been proposed that these nouns are instances of a more liberal type of incorporation, i.e., 'pseudo-incorporation'[3].

(6) *Avui porta faldilla$_i$. #La$_i$ hi vam regalar*
today wears skirt it.CL her PAST give.present
l'any passat.
the.year last
'Today she's wearing a skirt. We gave it to her last year as a present.'
Catalan; Espinal & McNally, 2011:94

(7) *Busco pis.* [*Un a Barcelona. / Un a Barcelona*
look.for. apartment one in Barcelona one in Barcelona
un a Girona].
one in Girona
'I'm looking for an apartment. One in Barcelona. /One in Barcelona and one in Girona.'
Catalan; Espinal & McNally, 2011:93

[3] The characterization *pseudo* aims to show that these nouns are not syntactically/ morphologically incorporated into the verb. Their affinity to canonically incorporated nouns is mostly semantic.

(8) *Mari verset olvas*.
Mari poem read
'Mary poem-reads.' 'Mary is reading poems / a poem.'
Hungarian; Farkas & de Swart, 2003:12

In (6), the noun *faldilla* 'skirt' fails to lend support for the anaphor *la* 'it' in the subsequent discourse, which shows that the former does not refer to any specific token individual. This shows that bare singulars in Catalan are generally discourse opaque. Additionally, the bare singulars *pis* 'apartment' and *verset* 'poem' in (7) and (8) respectively, can support both an atomic and a non-atomic reading (i.e., they are number neutral). With respect to the Catalan example in (7), this is shown clearly in the subsequent discourse.

Previous research has suggested that Greek bare singulars exhibit similar properties to pseudo-incorporated nominals, the substantive difference being that they are strictly atomic (Alexopoulou & Folli, 2010; Alexopoulou, Folli & Tsoulas, 2013; Lazaridou–Chatzigoga, 2011; Lazaridou–Chatzigoga & Alexandropoulou, 2013).

(9) *Psahno aftokinito.* [*Ena mikro jia tin poli*. /
look.for car one small for DET city
#*Ena mikro jia tin poli ki ena fortighaki jia*
one small for DET city and one van for
ekdhromes].
trips
'I am looking for *a* car. A small one for the city. / #A small one for the city and a van for trips.'
Greek; Lazaridou–Chatzigoga 2011:18

Unlike (7), the bare noun *aftokinito* 'car' in (9) cannot support a non-atomic interpretation. This is shown by the unacceptability of the second alternative in the follow-up statement, which is interpreted by the scholars as evidence that the bare complement is a 'true' singular. Alexandropoulou (2013) has proposed that a strictly atomic denotation is, however, not an

obstacle to treating Greek bare singulars as instances of pseudo-incorporation.

Be that as it may, sentences like (4), where a 'high quantity' (plural) interpretation arises, seem to challenge the view that Greek bare singulars are strictly atomicity. Intuitively, if something in exclamatives triggers a 'high quantity' reading, there should be some semantic component of bare nouns that is compatible with non-atomicity implicatures. Besides exclamatives, I extend this reasoning to my interpretation of declarative/assertion data, too, and make claims in favor of number neutrality.

Under these considerations, the main research questions I am raising in this thesis are:

I. To what extent do exclamatives influence the meaning of Greek bare singulars?
II. How can we account for the possible interpretive effects?

The argument is structured into three main parts.

Part I provides the theoretical framework. First, I introduce what semantic incorporation theories predict for the properties of bare singulars cross-linguistically (Sect. 2.1). Next, I focus on Greek bare singulars (Sect. 2.2). My main focus is to examine their properties and test whether they exhibit pseudo-incorporation (Sect. 2.2.2). The data used to elicit these properties are declarative/assertion sentences. Special attention is given to issues related to number neutrality. Part I concludes that Greek bare nouns are instances of pseudo-incorporation.

The following two parts are devoted to the main subject, i.e., Greek bare singulars in exclamatives. In Part II, I present the experiment I conducted in order to investigate the hypothesis that exclamatives influence the meaning of bare singulars relative to number/quantity. The results show that in exclamatives bare singulars receive a 'high quantity' interpretation.

Part III aims to account for this 'high quantity' effect. First, I establish the exclamative status of the sentences under analysis and derive their semantic properties on the basis of specific diagnostic tests (Sect. 4.1). Next, I dive into the main analysis. Using Zanuttini & Portner's (2003) semantic theory of 'widening', I argue that the 'high quantity' interpretation in Greek is derived as a pragmatic inference from the two distinct components of exclamative meaning, 'factivity' and 'widening'. This analysis shows that number neutrality is a presupposition in order for the 'high quantity' inference to emerge.

Part I: Laying the groundwork

This part offers the theoretical background. The aim is twofold: first, to outline what the various incorporation accounts predict for the semantics of bare singular arguments in object position (Sect. 2.1); second, to examine the properties of bare singular count complements in Greek and see if a pseudo-incorporation analysis can account for their behavior.

2.1 Noun (pseudo-)incorporation

The term 'incorporation' was first used to describe the morphosyntactic process whereby a nominal head moves into a verb thereby forming a compound predicate (Baker, 1988). The minimal pairs in (10) and (11) illustrate the difference between an incorporated and a non-incorporated version of the phrase *deer-butcher*, which describes a ritual practiced in Sonora:

(10) *aapo* *maaso-peu-te-n.*
he deer-was.butchering-INTR
'He was deer-butchering / butchering deer.'

(11) *aapo* *maaso-ta* *peu-ta-k.*
he deer butchered-TRANS
'He butchered a deer.'

Yaqui; Haugen, 2008:118

Besides morphology and syntax, incorporated structures have semantic correlates and are subject to interpretive as well as pragmatic restrictions attested cross-linguistically. For instance, the deer(s) being butchered in (10) is/are not specific; the incorporated nominal is interpreted existentially. The first formal analysis of the semantics of incorporated structures was conducted by Van Geenhoven (1998).

In her study, Van Geenhoven noticed that bare nouns in West Greenlandic are comparable to English bare plurals and German split topics, in that they standardly take narrow scope; on that note, she suggested these phenomena be analyzed under the cover term 'semantic incorporation'. Van Geenhoven's theory, also known as 'absorption theory', posits that the incorporated noun is a property which is absorbed by the verb and narrows down its denotation. She proposes two lexical entries for each predicate, an incorporating and a non-incorporating one. The incorporating type has a variable that is linked with an internal argument and an existential quantifier, which binds this variable.

The formal theory by Van Geenhoven has been seminal and spawned a series of studies on the semantic properties of bare arguments across different languages. In her study on Niuean, Massam (2001) noticed that bare singulars in this language exhibit the exact same semantic properties (see below) as syntactically incorporated nominals, the substantive difference being that they are NP's and not noun roots. She coined the term 'pseudo-incorporation' which has ever since been used as a more liberal type of incorporation to account for the semantics of bare singulars in numerous languages (Alexandropoulou, (2013) for Greek; Chung & Ladusaw (2003) for Maori; Dobrovie–Sorin et al. (2006) for Romanian; Dayal (2011) for Hindi; Espinal and McNally (2011) for Spanish and Catalan; Farkas & de Swart (2003) for Hungarian; Modarresi (2014) for Persian etc.).

Pseudo-incorporated nominals are associated with a constellation of semantic properties (Borik & Gherke, 2015): obligatory narrow scope, weak referential status, inability to support anaphora, lack of number specification (i.e., number neutrality), reference to well-established activities and restrictiveness.

(12) *Mari verset kell olvasson.*
Mari poem must read
'Mary must read poems/a poem.'

Hungarian; Farkas & de Swart, 2003:7

The sentence in (12) exhibits all the aforementioned properties. First, the NP *verset* 'poem' takes obligatorily narrow scope under the modal verb 'must'[4]: there is not a specific poem such that Mary must read it. The predicate is satisfied on condition that Mary reads any poem whatsoever (Sadock, 1980; Bittner, 1994; van Geenhoven, 1998; Dayal, 1999; Massam, 2001; Chung & Ladusaw, 2003; Farkas & de Swart, 2003; Espinal & McNally, 2011).

This is not necessarily the case once the utterance is realized with the indefinite determiner:

(13) *Mari* *kell* *olvasson* *egy* *verset.*
Mari must read INDEF poem
'Mary must read a poem.'
Hungarian; Farkas & de Swart, 2003:7

Here the indefinite determiner can take either narrow or wide scope with respect to the modal: in the wide scope reading, there is a specific poem such that Mary must read it, while in the narrow scope reading, Mary must read any poem in the world. This is further evidence that (12) involves pseudo-incorporation while (13) does not.

Lack of definiteness specification brings us to the second property of bare singulars, weak referentiality. This property is often discussed in conjunction with the noun's inability to lend support for anaphoric elements in the subsequent discourse (Borik & Gehrke, 2015). In the following example, the anaphor *őt* 'him' in the follow-up sentence cannot refer back to the bare noun *beteget* 'patient':

(14) *János*$_i$ *beteget*$_j$ *vizsgált* *a* *rendelőben.*
Janos patient examined DET office.in
'Janos patient-examined (examined a patient) in the office.'

[4] In Hungarian, all narrow scope indefinite elements occur in preverbal position typically reserved for predicative elements (Farkas & de Swart, 2003). The opposite holds for the non-incorporated structures, in which the indefinite would occur post-verbally because it receives wide scope.

#	*pro$_i$*	*Túl*	*sulyosnak*	*találta*	*őt$_j$*	*és*	*beutaltatta*
	pro	too	severe	find	he	and	intern
	pro$_j$	*a*	*korházba.*				
	pro	DET	hospital.in				

Intended: 'He found him too sick and sent him to the hospital.'

Hungarian; Farkas & de Swart, 2003:19

Be that as it may, it has been suggested that in some pseudo-incorporating languages bare singulars are not discourse opaque under certain circumstances (Dayal, 2011; Espinal & McNally, 2011; Farkas & de Swart, 2003; Massam, 2001; Modarresi, 2014). For instance, in contexts involving telicity a bare noun in Hindi can act as the antecedent for an anaphor in the subsequent discourse. To illustrate:

(15)

anu-ne	*apne*	*beTe*	*ke-liye*	*laRkii$_i$*	*cun*	*lii.*	
Anu	self's	son	for	girl	choose	COMPL.PFV	

'Anu has girl-chosen for her son.'

us-ne	*us$_i$-ko*	*ek*	*sone-kaa*	*cen*	*diyaa*	*hai.*
she	her.CL	one	gold	necklace	give.PFV	be.PRES

'She has given her a gold necklace.'

Hindi; Dayal, 2011:159

The third property of pseudo-incorporated nominals is number neutrality, which means that in principle bare singulars can support both an atomic and a non-atomic reading. In examples (12) and (14), the poem(s) Mary reads and the patient(s) Janos examines, accordingly, are not specified for number. Extraneous factors such as context, pragmatics, world knowledge (i.e., social standards, common-ground norms) serve to disambiguate whether there is reference to one or multiple patients. For instance, in (15) a plural reading of the noun *laRkii* 'girl' cannot be licensed on the grounds that a plurality of brides would be in clash with social norms of monogamy in India (Dayal, 2011).

Number neutrality is a stable property of pseudo-incorporated nominals; in fact, Borik & Gehrke (2015:14) name it 'the true hallmark' of incorporation. Yet, in a few contexts the bare noun is semantically singular. For instance, in Hindi, Dayal (2011) shows that number neutrality is the consequence of interaction with aspectual operations. To illustrate, compare the accomplishment predicate involving telicity in (16) with the activity predicate involving atelicity in (17).

(16) *anu-ne* [*tiin ghanTe meN* / **tiin ghanTe tak*]
Anu.ERG three hours in three hours for
kitaab paRh Daalii
book read COMPL.PFV
'Anu read a book in three hours.' = exactly one book
[Accomplishment]

(17) *anu-ne tiin ghanTe tak kitaab paRhii*
Anu.ERG three hours for book read.PFV
'Anu read a book for three hours.' = one or more books
[Activity]
Hindi; Dayal, 2011:142

In (16), telicity can be judged by two factors: first, the use of the completive particle, and second, compatibility with a measure adverbial specifying the end-point of the accomplishment (i.e., within an hour). In this example, *kitaab* 'book' is strictly atomic. The opposite holds for the activity predicate in (17); the use of the adverbial *for an hour* here makes the statement atelic, and in this context, *kitaab* can refer either to one or multiple books.

Furthermore, pseudo-incorporated constructions have a strong tendency to refer to well-established and easily identifiable activities (Borik & Gehrke, 2015), such as *book-read* or *patient-examine*, which we saw in the previous examples. Mithun (1984) describes these activities as 'institutionalized'. To illustrate:

(18) *Min nabo* *købte* *hus* *sidste år.*
my neighbor bought house last year
'My neighbor house-bought last year.'

(19) # *Min nabo* *købte* *blyant* *igår.*
my neighbor bought pencil yesterday
'My neighbor pencil-bought yesterday.'

Danish; Asudeh & Mikkelsen, 2000:1–2

In (18), *hus* 'house' is a good candidate for incorporation in that it denotes together with the verb a prototypical, 'institutionalized' activity; on the contrary, (19) is deviant because the accomplishment *pencil-bought* does not meet the prototypicality requirement.

The fact that some nouns are more likely to act as bare complements than others shows that incorporation phenomena are characterized by some degree of restrictiveness (Carlson, 2006). Besides the noun, restrictions are also imposed on the verbal component of pseudo-incorporated constructions. As we will see in a later section (2.2.2.4), only specific (classes of) verbs are found to license bare singulars in object position.

To conclude, the data considered above suggest that bare singulars exhibit similar semantic properties cross-linguistically. However, this is not without variation. As we saw, a noun may disallow anaphora in some contexts but permit it in others. Besides this, there is lack of uniformity also with respect to the targets of incorporating verbs across the various languages: in Hindi, the verb seems to target an NumP (Dayal, 2011), in Spanish and Catalan it targets an NP that is always unmarked for number (Espinal & McNally, 2011) and, in Hungarian, an NP that can be marked for case (Farkas & de Swart, 2003; for a similar observation see Rinaldi, 2018). In the following section, I consider Greek bare singulars and investigate how their properties compare with those of pseudo-incorporated nominals.

2.2 Greek bare singulars

The aim of this section is to locate bare nouns in the Greek nominal system and investigate the semantic properties of argumental bare singulars.

2.2.1 The status of bare nouns in Greek

Greek uses both the definite and indefinite[5] determiner in its functional array[6] (Giannakidou, 2012). In principle, bare singular complements are disallowed. To illustrate:

(20) *Kitazo* *ena* *ergho* *zoghrafikis.*
look INDEF work painting
'I look at / am looking at a painting artwork.' HNC

(21)* *Kitazo* *ergho* *zoghrafikis.*
look work painting
Intended: 'I look at / am looking at a painting artwork.'

Reversely, bare nouns are allowed in post-copular position, where they are property-denoting and act as predicates:

(22) *O* *ipologhistis* *ine* (*mia*) *mihani.*
DET computer is INDEF machine
'The computer is a machine.' HNC

According to Chierchia's (1998) *Nominal mapping parameter*, the denotations of Greek singular NP's are of the type [–arg,+pred] (Sioupi, 2001; Marinis, 2003). Chierchia's classification predicts that determinerless singular nouns can only map onto predicates and never onto arguments.

[5] Greek uses the numeral *enas, mia, ena* 'one (=a)' as indefinite article which is infected for gender and case.
[6] Generic reference including kind-level predicates is achieved only with the definite article regardless of the mass/count distinction (Giannakidou, 2012).

Yet, there are a number of contexts, restricted in number, in which a bare singular phrase is found in argument position (Kampanarou, 2019; Lazaridou–Chatzigoga, 2011; Giannakidou, 2012). To exemplify, consider the following examples:

(23) *Htizi* [*ena spiti* / *spiti*] *stin Costa Brava.*
builds INDEF house/house in.the Costa Brava
'S/he is building a house in Costa Brava.'
Lazaridou–Chatzigoga, 2011:8

(24) *I Ino kerdhise* [*enan aghona* / **aghona*].
DET Ino won INDEF race / race
'Ino won a race.'
Lazaridou–Chatzigoga, 2011:13

In (23), the use of the indefinite article is optional while in (24) it is necessary. Lazaridou–Chatzigoga (2011) attributes the ungrammaticality of the bare version of (24) to the fact that bare singulars cannot be complements of achievement predicates like *kerdhizo* 'to win'. This is in line with the corpus findings in Lazaridou–Chatzigoga & Alexandropoulou (2013) and Alexandropoulou (2013) which show that only specific verb classes – *kerdhizo* does not belong to any of these – license bare singular complements in Greek.

However, one could think of examples like *kerdhizo stihima* 'to win a bet' or *kerdhizo vravio* 'to win a prize' in which the indefinite is not necessary. Also, the sentence in (24) would sound grammatical in VOS order for some native speakers including myself (i.e., *Kerdhise aghona i Ino*) (see also Marinis (2003:71) or in SVO order with contrastive focus on the subject. To illustrate:

(25) *I INO kerdhise aghona. Ohi o Manolis.*
DET Ino won race not DET Manolis
'It was Ino that won *a* race, not Manolis.'

Finally, bare singulars are disallowed in subject position in both generic and existential readings.

(26)* *Nerofido* *etrexe* *na* *krifti.*
water.snake ran to hide
Intended: 'A water snake ran away to hide'
distorted from HNC

In the very few cases where bare singulars are found in subject position, they are not true subjects; rather, they act as the underlying objects (for instance, in passivization or in existential impersonal constructions (Lazaridou–Chatzigoga & Alexandropoulou (2013)). An interesting exception are instances of contrastive focus as in (27):

(27) *Ton* *exetase* *YATROS.*
him examined doctor
'It was a doctor that examined him!'
Alexopoulou & Folli, 2010:9

These data suggest that bare singular count nouns in Greek can be used in both non-argumental (i.e., predicative) and argumental (i.e., direct object) positions. Their use as arguments is nevertheless restricted as, in most cases, the use of the indefinite article is necessary in order for the sentence to be grammatical. In what follows, I zoom in on the interpretational properties of bare singular complements.

2.2.2 Argumental bare singulars in Greek

The purpose of the current section is to test Greek bare singulars for pseudo-incorporation on the basis of the diagnostics described at length throughout Sect. 2.1. Note that the data used to elicit these properties are declarative sentences with assertive content.

2.2.2.1 Narrow scope

Argumental NP's trigger an existential interpretation as they do not refer to specified entities:

(28) *Htizi spiti stin Costa Brava.*
builds house in.the Costa Brava
'S/he builds *a* house in Costa Brava.'

In (28), there is no reference to a specific house. Just like indefinite bare plurals, bare singulars receive obligatory narrow scope in the presence of other scopal elements (Giannakidou, 2012). (29) illustrates this with respect to negation:

(29) *Dhen htizi spiti stin Costa Brava.*
not builds house in.the Costa Brava
'S/he is not building *a(ny)* house in Costa Brava.'
¬ > ∃ and *∃>¬

If the indefinite determiner is used, however, the noun can either have a narrow-scope or a wide-scope reading (as in the Hungarian example (13)).

(30) *Dhen htizi ena spiti stin Costa Brava.*
not builds INDEF house in.the Costa Brava
'S/he is not building any/a/one house in Costa Brava.'
¬ > ∃ or ∃>¬

These data suggest that bare singular complements in Greek receive narrowest scope just like pseudo-incorporated nominals.

2.2.2.2 Discourse opacity

Greek bare singulars are in principle referentially weak and do not introduce discourse referents (Alexopoulou & Folli, 2010; Kampanarou, 2019). Lazaridou–Chatzigoga (2011:16) maintains that Greek BN's are not referential in that "the speaker [does not have] a specific referent in mind as she utters the nominal phrase". This claim is strengthened by the fact that pronominal anaphora is generally disallowed. To illustrate:

(31) *A: Vrike* *dada$_i$* *i* *Maria? B:* *Ne,* *(*ti$_i$)* *vrike.*
found nanny DET maria yes her.CL found
'Has Maria found a nanny? Yes, she found one/(*her).'

Alexopoulou & Folli, 2010:5

(32) *Simera forai* *fusta$_i$.* **Tis* *tin$_i$* *ekana dhoro persi.*
today wears skirt to.her her.CL made gift last.year
'Today she's wearing *a* skirt. *I gifted it to her last year.'

Lazaridou–Chatzigoga, 2011:18

However, in some contexts, bare singulars may lend support for anaphors in the subsequent discourse, which is an indication that bare singulars exhibit a mixed performance with respect to discourse opacity. To illustrate:

(33) *Foruse* *pukamiso$_i$* *htes.* *To$_i$* *ihe*
was.wearing shirt yesterday CL had
aghorasi apo ti Varkeloni.
bought from DET Varkeloni
'Yesterday he had a shirt on. He had bought it in Barcelona.'

Lazaridou–Chatzigoga, 2011:18

Furthermore, Alexandropoulou (2013) shows on the basis of referentiality and argumenthood diagnostics that these nouns do not always get a weak reading. One argument in favor of transparency is that bare nouns can be arguments in secondary predication. To illustrate:

(34) *Ehi mihani etimi jia ola.*
has motorbike ready for everything
'S/he has a motorbike (which is) ready for everything!'
Alexandropoulou, 2013:61

In (34), the noun *motorbike* serves as the subject of the secondary predicate *is ready for*. It is well established in the literature that Greek pre-verbal subjects function as topics, and to do so they have to be referentially strong.

The data under discussion suggest that Greek bare singulars are in some contexts discourse opaque while in other contexts they exhibit transparency. This ambivalence is observed in several languages that have (pseudo-) incorporation, as we saw earlier (Sect. 2.1). As far as Greek is concerned, it is unclear which factors are responsible for licensing anaphora in examples like (33). Lazaridou–Chatzigoga (2011) mentions the use of the past tense while Alexandropoulou (2013) vaguely proposes that anaphora is allowed only with telic readings and perfective aspect. Even though there may be some sensitivity to aspectual specificity, the conditions on which Greek bare singulars support anaphora needs to be further investigated. For instance, if telicity and perfective aspect are determining factors, then why does the bare noun in (31) get an opaque reading?

2.2.2.3 Number neutrality

The most intriguing aspect of Greek bare singulars is their number interpretation. While in most languages that have (pseudo-)incorporation bare singulars are unspecified for number, Greek bare singulars are traditionally treated as strictly atomic (Alexopoulou & Folli, 2010;

Alexopoulou, Folli & Tsoulas, 2013; Lazaridou–Chatzigoga, 2011; Lazaridou–Chatzigoga & Alexandropoulou, 2013). However, as I show, in this section, there are a number of contexts in which a plural reading is also available. In these cases, it is assumed that the noun is in fact number neutral.

As a point of departure, let us consider some examples that are used frequently in the literature in support of the claim that bare singulars in Greek are strictly atomic.

(35) *Dhjavase efimeridha.*
read newspaper
'S/he read *a* newspaper.'

Alexopoulou & Folli, 2010:9
(used also in Alexopoulou, Folli & Tsoulas, 2013:309)

There is a consensus among the scholars citing this example that *efimeridha* here refers strictly to one individual. However, this judgment is sound on condition that the predicate is read as an accomplishment, in which case, the reading involves intuitively *just* one newspaper. The opposite holds if the predicate is read as an activity. Consider the minimal pairs in (36) and (37):

(36) *Djavase efimeridha mesa se mia ora.*
read newspaper inside in one hour
'S/he newspaper-read within an hour.' = just one newspaper
[Accomplishment/telic]

(37) *Djavase efimeridha jia mia ora.*
read newspaper for one hour
'S/he newspaper-read for an hour.' = one or more newspapers
[Activity/atelic]

In (37), *newspaper-reading* is an activity and the use of the measure adverbial *for an hour* makes the statement unambiguously atelic. In this

case, the event may involve one or multiple participants. Just like in the Hindi example (17), here, too we see that the property of number neutrality is in fact sensitive to aspectual specification, rather than nonexistent.

Let us now turn to another example.

(38) (a) *Vrika telika spiti sto Londhino.*
found finally house in.the londhino
'I finally found *a* house in London.
(b) *Ena sto Hackney ke ena sto City.*
one in.the hackney and one in.the city
'One in Hackney and one in City.'

Lazaridou–Chatzigoga, 2011:18

Similarly, *spiti* in (38a) is taken by Lazaridou–Chatzigoga (2011) to refer exclusively to one house, which is why she considers the continuation in (38b) infelicitous. However, I am not particularly convinced that a number neutral interpretation is in principle excluded in (38a) nor that the suggested continuation is necessarily unacceptable. Lazaridou–Chatzigoga's reading of the verb *found* implies some sort of possession; that is, the author reads the verb as a *HAVE*-predicate in Borthen's (2003) words, denoting ownership. On this reading, the statement means that the speaker found and rented out or bought a house in London, in which context an atomic interpretation is the only one available. This does not, however, entail that the predicate is not number neutral; it rather means that its actual interpretation is subject to contextual or pragmatic factors.

Let us consider an alternative context in which *house-found* can also support a non-atomic reading. Suppose the speaker in (38) has long been at pains to find accommodation in London but all her efforts have gone in vain. She finally decides to settle for second best and moves to the suburbs. Some days later she gets a notification from an agency that two properties became available and they are both in London, but the woman declares she is no longer interested. Uttering (38b) as a follow-up to (38a) in this context is perfectly acceptable; note that *found* here is devoid of any ownership

semantics; rather, the emphasis is on the 'becoming-aware' or 'finding-out' aspect of the verb's meaning.

A third example used in the literature as evidence for atomicity is the following:

(39) (a) *Psahno aftokinito.*
look.for car
'I'm car-seeking.'

(b) *Ena mikro jia tin poli ke ena fortighaki jia ekdhromes.*
one small for DET city ena one van for trips
'A small one for the city and a van for trips.'

Lazaridou–Chatzigoga, 2011:18
(used also in Alexopoulou, Folli & Tsoulas, 2013:309)

This example is adapted from Catalan (Espinal & McNally, 2010). Some native speakers, including myself, find this example unacceptable not because of issues related to number, but because the produced adaptation does not really work for Greek (a similar comment is also made in Alexandropoulou, 2013:58). Thus, even if the plural version *Psahno aftokinita* 'I'm looking for cars' were to be used, the continuation *A small one and a van/truck for trips* would still sound decidedly odd. Another problem is that there is no *type-of* relationship between the words *aftokinito* 'car' and *fortighaki* 'van/small truck' in Greek. In other words, *fortighaki* is not a subtype or an instance of *aftokinito* in the preceding sentence; the two words denote two completely different/unrelated objects.

In view of this, it seems that we should somehow modify the translated version of the Catalan example so as to get a better insight into how the bare singular is interpreted relative to number. Consider the following sentences:

(40) A: *Psahno aftokinito aftin tin periodho.*
look.for car thus DET period
B: *Ti akrivos? Mipos boro na voithiso.*
what exactly maybe can to help
A: *Ena mikro jia tin kori mu ki ena jia mas.*
one small for DET daughter mine and one for us
'A: I've been car-seeking these days.
B: What exactly? Maybe I can help.
A: A small one for my daughter and one for us/the whole family.'

In this version, both a singular and a plural reading of *aftokinito* can be licensed. However, it should be noted that in the absence of a follow-up statement, most (if not all) speakers of Greek would interpret the noun as a 'true' singular. The reason why this is so I leave to future research. My intention here is to show that a number neutral reading is not in principle excluded.

Finally, I would like to consider two examples which illustrate that a plural reading of bare singulars in some contexts in fact prevails over the singular.

(41) *Tha arghiso. Vlepo aftokinito stin Ethinki.*
will delay see car in.the highway
'I'll be late. I car-see on the highway.'
'I'll be late. I see *a car / cars on the highway'.

(42) *To kalokeri* [*mazevi / ehi*] *katsaridha i avli.*
DET summer collects has cockroach DET backyard
Literally: 'In the summer, the courtyard cockroach-amasses / cockroach-has.'
'In the summer, the courtyard has *a cockroach / cockroaches'.

In these examples, a non-atomic interpretation is the only one available. In (41), number disambiguation is conducted via pragmatic reasoning: the

speaker informs that she will be late and in turn states that there is traffic on the highway. Evidently, the woman will not be late because there is one car on the road; thus, *aftokinito* here refers to multiple cars.

Similarly, a number of factors favor a plural reading in the second example (42). One such factor is the lexical semantics of the noun *cockroach*; cockroaches have tremendously fast reproductive rates; they build huge colonies and rarely live, travel and spread alone. Another factor is the use of the temporal adjunct *in the summer*; if the speaker in (30) lives in a city like Athens with 40 C^0 in mid-July, it is very likely that she spots dozens of roaches on a daily basis in her courtyard. Finally, the predicate *mazevi* 'gathers/amasses', which is here used in a similar way to the impersonal existential *ehi* 'there is/are', is also suggestive of plurality; semi-collective predicates engage multiple participants.

2.2.2.4 Well-established[7]ness and lexical restrictions

Pseudo-incorporated constructions, as we saw, typically refer to prototypical or 'institutionalized' activities (Sect. 2.1). Similarly, V+BN complexes in Greek refer to activities that are well-established and easily recognizable in discourse. To illustrate:

(43) *I Martha kerdhise to loto ke htizi spiti*
DET martha won DET loto and builds house
stin Ithaki.
in.the Ithaki
'Martha won the lottery and is building *a* house in Ithaca.'
Alexandropoulou, 2013:37

[7] The term is borrowed from Borik & Gehrke (2015).

(44) *To pedhi htizi* [**kastro* / *ena kastro*] *stin amo.*
DET kid builds castle INDEF castle in.the sand
The kid is building a house in the sand.'

In (43), the use of a bare singular is acceptable since the activity of house-building meets the prototypicality requirement; the opposite holds for castle-building in (44), which is not a well-established activity. For this reason, the use of the indefinite determiner is necessary in order for the sentence to be grammatical. Additionally, nouns with strong reference such as proper names, pronouns or animate proper nouns are in principle not licensed as bare complements. To illustrate:

(45) *Hriazome* [**Marina* / *tin Marina*] *jia ta nihia mu.*
need Marina DET Marina for DET nails mine
'I need (DET / *Ø) Marina for my nails.'

V+BN complexes, however, do not always refer to 'institutionalized' activities in Greek. Bare singulars can be complements of intensional verbs as in *hriazome podhilato* 'I need *a* bike' or transaction verbs as in *lamvano idhopiisi* 'I receive *a* notification'. But they cannot combine with any verb (e.g., **katharizo spiti* 'I clean *(a) house').

As in other [–arg,+pred] systems, so in Greek there are specific (classes of) verbs that license bare singular arguments (Alexandropoulou, 2013; Lazaridou–Chatzigoga, 2011; Marinis, 2003). Table 1 summarizes the findings from Alexandropoulou (2013) regarding lexical restrictions on V+BN complexes in Greek.

Table 1: Lexical classes & constructions that combine with bare singular complements in Greek (Alexandropoulou, 2013:28)

verbs/constructions	example 1	# occ.	example 2	# occ.
consumption verbs	*troo* 'to eat'	8	*kapnizo* 'to smoke'	9
creation verbs	*ghrafo* 'to write'	50	*htizo* 'to build'	24
transfer/transaction verbs	*lamvano* 'to receive'	706	*aghorazo* 'to buy'	154
ownership/possession verbs	*eho* 'to have'	4.101	*dhjatiro* 'to hold, possess'	60
usage verbs	*hrisimopio* 'to use'	96	*forao* 'to wear, put on'	161
intensional verbs verbs of comparison modal/psychological verbs of absence	*thimizo* 'to evoke' *hriazome* 'to need'	104 114	 *psahno* 'to look for'	 44
existential constructions	*iparhi* 'exists'	2.483	*ehi* 'has'	35
institutionalized activities	*akuo radhiofono* 'to listen to the radio'	17	*vlepo tileorasi* 'to watch TV'	71
motion/locative verbs	*pigheno (sholio)* 'to go (to school)'	69	*ime (filaki)* 'to be (in prison)'	24
light verbs	*perno (agalia)* 'to hug'	16	*kano (patini)* 'to skate'	2

A number of these classes/constructions overlap with those that license bare complements in Norwegian (Borthen, 2003), Spanish and Catalan (Espinal & McNally, 2009), Romanian (Dobrovie–Sorin et al., 2006) and Brazilian Portuguese (Borik et al., 2012). Borthen (2003) proposes the cover term '*HAVE*-predicates' for these verbs. Interestingly, not all verbs belonging in these classes take a bare singular complement as Alexandropoulou (2013) shows.

In sum, V+BN constructions are subject to a number of restrictions. On the one hand, only specific (classes of) verbs are found to license bare singular complements, and on the other hand, only nouns that do not have strong reference (like proper nouns, pronouns etc.) are licensed in object position in their bare form.

Based on the properties reviewed in this section, and especially in light of the arguments exhibited in favor of number neutrality, it can be concluded that Greek bare singulars can be analyzed as instances of pseudo-incorporation.

Interim summary

The highlights of Part I are the following:

1) Bare singulars in object position exhibit the same semantic properties as syntactically incorporated nominals. On this account, it has been proposed that they are instances of pseudo-incorporation.
2) Pseudo-incorporated nominals exhibit, to varying degrees, the following properties across languages:
    i. obligatory narrow scope
    ii. restricted referential status
    iii. inability to support pronominal anaphora (opacity)
    iv. number neutrality
    v. reference to 'institutionalized' activities
    vi. restrictiveness
3) Greek bare singulars exhibit all properties i-vi but not in a consistent manner (e.g., they sometimes allow discourse anaphora). The data used to elicit these properties were (and have been) in principle declarative/assertion sentences.
4) Contrary to earlier accounts, which have interpreted bare singular complements as strictly atomic, I argued that a plural reading may also be available under certain circumstances (e.g., with activity predicates involving atelicity). As a matter of fact, a plural interpretation is in some contexts the only one available.
5) Under these considerations, it was proposed Greek bare singulars in assertions are pseudo-incorporated.

In what follows, I examine how a special type of exclamation sentences influences the properties of pseudo-incorporated nouns in Greek. My main focus is on how their interpretation is affected relative to number as in these sentences, bare singulars receive a 'high quantity' interpretation. Before the main analysis, I present the experiment I conducted in order to provide empirical evidence for my claims.

Part II: Greek BN's and exclamation - Experimental evidence

In this part, I present the experiment I conducted in order to show that a 'high quantity' inference emerges once bare singular complements are instantiated in a special type of verb-initial exclamatory expressions in Greek. I refer to these expressions as 'exclamatives' (their exclamative status is properly established later in Sect. 4.1).

3 The experiment

The purpose of the experiment was to test the hypothesis that exclamatives influence the meaning of bare singular objects relative to number/quantity. My hypothesis was motivated by the assumption that exclamatives are in general associated with reference to high degrees (I deal with this matter in more detail in Chapt. 4). In some contexts, the degree component of exclamatives may be interpreted with respect to quantity (quantitative or amount reading) (Rett, 2009, 2011). For example, in the sentence *What languages Mimi speaks!* the speaker expresses surprise at the (very high) number of languages that Mimi speaks. Thus, I wanted to examine if exclamatives have an analogous effect on bare singulars in Greek.

While the main focus of the thesis is on count nouns, I also included mass nouns in the test items to make sure that the effect arises regardless of the mass/count distinction.

In the lack of relevant and suggestive corpus data (the type of exclamatives under investigation are common in informal settings), I considered a quantitative research design more appropriate. In this way, I could also see how my native-speaker intuitions resonated with other speakers' judgments.

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3.1 Introduction

The experiment consisted of 120 sentences (i.e., 20 test items, 20 controls and 80 fillers). I used a Latin Square Design (LSD) for the test items (conditions 1 and 3) and controls (conditions 2 and 4); each item was accompanied with a question regarding the quantity expressed in the sentence.

More specifically, the test items consisted of exclamative sentences containing a bare noun in object position (condition 1: mass nouns; condition 3: count nouns) and the controls consisted of declarative sentences also containing a bare object (condition 2: mass nouns; condition 4: count nouns). Participants were divided into two groups: the test items distributed across group 1 were presented as controls in group 2, and in like manner, the test items distributed across group 2 served as controls in group 1 (See Appendices A and B). In this way, each sentence appeared in its marked form in one version and its unmarked form in the other, as shown below:

Condition 1 (test items)
mass type: exclamatives (special intonation/VOS)

Series A → group 1

Series B → group 2

Condition 2 (controls)
mass type: declaratives (neutral intonation/SVO)

Series A (parallel to series A in condition 1) → group 2

Series B (parallel to series B in condition 1) → group 1

Condition 3 (test items)
count singular type: exclamatives (special intonation/VOS)

Series C → group 1

Series D → group 2

Condition 4 (controls)
count singular type: declaratives (neutral intonation/SVO)

Series C (parallel to series C in condition 3) → group 2

Series D (parallel to series D in condition 3) → group 1

The reason I chose a Latin Square Design was mainly to make more certain that the effect in the test items is due to special intonation and fixed word order by controlling sources of extraneous variation and eliminating nuisance factors (e.g., context elements favoring a high or low quantity reading).

My null hypothesis was that exclamatives do not make any difference in how V+BN or V+BMN[8] constructions are interpreted relative to quantity. The alternative hypothesis was that exclamatives effect a change in the interpretation of V+BN/BMN complexes relative to quantity.

3.2 Methodology

The method I used was an online judgment task. Each item (incl. fillers) was presented in a written and a recorded version. The software I used was Qualtrics.XM and the survey was distributed online.

3.2.1 Participants

62 native speakers of Greek (incl. 2 speakers of Cypriotic Greek), monolingual and bilingual took part in the survey. Their mean age was 36,3 years (range 21–65); 39 were female and 23 were male.

3.2.2 Materials

All materials were excerpts from the HNC and were adapted in order to meet the expected requirements. In doing so, I consulted with other native speakers. Each sentence was accompanied by an audio clip recorded by an experienced actress on the basis of my instructions. The actress offered to take part in the process voluntarily.

[8] BN = bare singular count noun, BMN = bare mass noun.

3.2.2.1 Test items

The test items comprised the two target conditions: Condition 1: V+BMN in VOS order (*n*=10); Condition 3: V+BN in VOS order (*n*=10). In the recordings, the V+BN/NMN complexes were uttered with special intonation[9]. The question of each item was standardly 'Is/are there a lot of [noun] mentioned in the sentence?' and the options were 'yes', 'possibly' and 'no'. Greek uses the determiner *poli* 'many/much' for both mass and count nouns so the mass/count distinction was not profiled by the determiner in the questions.

The V+BN/BMN complexes were always put in a veridical environment and special attention was paid in order for the sentences to sound natural and grammatical. The verbs were in perfective aspect and the sentences were in VOS order (VSO could work too but I preferred to use one order systematically). The reason for this ordering was that the purported effect would be unlikely to occur were the verbs not fronted.

Standard focus/intonation and word order were thus identified as one independent variable with two different values. The other independent variable was noun type (i.e., mass/count) and the three answer choices were analyzed as the dependent variables. Finally, the verbs I used were from the lexical classes that can license bare singular complements in assertions (see Sect. 2.2.2.4), so that the sentences could work both in their marked and unmarked version in conformity with the LSD.

Sentences (46) and (47) are examples from the test items (contrast with (48) and (49) below, where the sentences appear in their unmarked version):

[9] The exclamatives under discussion are associated with a number of distinct paralinguistic features. They are uttered with special intonational patterns such as consecutive fall-rise effects as well as lengthening of the ultimate syllable of the final word. Additionally, a special gesture often accompanies the utterance, which involves a repetitive circular motion of the hand at shoulder level for as long as the utterance lasts. Interjections are also an integral part.

(46) *IHE*[10] *VALI KIMINO* *sto* *faghito* *i* *kira*
had put cumin in.the food DET mrs
Sula…!
Sula
'Mrs Sula had put *a lot of* cumin into the recipe!'
condition 1, item 1, group 1

(47) *IHA* *FITEPSI* *LEMONIA* *egho* *sta* *horafia*
had planted lemon.tree I at.the fields
tu *papu…!*
of.the grand.father
'I had planted *a lot of* lemon trees at the fields of my grandfather!'
condition 3, item 7, group 1

3.2.2.2 Controls

Controls comprised the remaining two conditions: Condition 2: V+BMN with no special intonation and in SVO order (*n*=10); Condition 4: V+BN with no special intonation and in SVO order (*n*=10). For Condition 4, the expected answer to the question 'Is/are there a lot of [noun] mentioned in the sentence?' was 'no', because BN's have a singular reading (unless contextual/pragmatic factors suggest otherwise). For Condition 2, the expected answers were either 'no' or 'possibly' because mass nouns are unspecified for quantity and this property is compatible with a high quantity reading.

Sentences (48) and (49) are examples of controls (contrast (46) and (47) above):

[10] The uppercase letters indicate focus. Focus was assigned to both the verbal and the nominal component of V+BN/BMN complexes.

(48) *I kira Sula ihe vali ke kimino sto faghito.*
DET mrs Sula had put and cumin in.the food
'Mrs Sula had also put cumin into the recipe.'
condition 2, item 11, group 2

(49) *Egho iha fitepsi lemonia sta horafia tu papu.*
I had planted lemon.tree at.the fields of grand.father
'I had planted *a* lemon tree at the fields of my grandfather.'
condition 4, item 17, group 2

3.2.2.3 Fillers

Fillers were created in order to obscure the purpose of the experiment and distract from the critical items. They were double the number of targets and controls (40 x 2 = 80 fillers in total). The fillers in group 1 were different from those in group 2; yet the logic behind the sentences and the questions was the same such that the results would not be influenced.

The factors that determined the nature of fillers were i) sentential type (i.e., half of the fillers were declarative sentences and the other half were exclamatives); ii) the use of non-standard prosody (i.e., prosody which did not materialize on either part of V+BN/BMN complexes), ii) the use of quantifiers and iii) the use of plural morphology on the nouns. Bare singular nouns were systematically avoided in the fillers.

To illustrate, consider example (50) where a high-degree interpretation arises as a result of focus assigned to the regular indefinite:

(50) *I mana tu Hristu ftiahni ENAN*
DEF mother of hristos makes INDEF
musaka na ghlifista dhahtila su!
moussaka to lick DEF fingers yours
'Chris' mother makes *such a* (*delicious*) moussaka,
that you would lick your fingers!' (*idiomatic*)

Question: 'Is there *only one pan of moussaka* mentioned in the sentence?
filler 45, group 2

Purposefully, the structure of the questions aimed at distracting the participants from large quantities. To this end, they were asked to say (or infer based on prosody or context) whether quantity A was less than quantity B or if agent C took less time than D to perform a task (in Appendix C, I list all the fillers and classify them per question type).

A degree of vagueness was often part of the filler questions in order to elicit a considerable number of 'possibly' answers, too. The logic behind this was to balance between different expected responses (i.e., 'yes/possibly/no'). In those examples, the participants did not have enough information to confidently say 'yes' or 'no'; thus, it was expected that they would answer 'possibly' along the lines of 'I do not know'. For example, in (51), it is clear that the government will collapse soon but how soon is not specified.

(51) *I nea kivernisi ine themaHRONU na pesi*
DET new government is issue time to fall
me oles aftes tis apotihies!
withall these DET failures
'It is only a matter of time until the new government
is overturned with all its failing endeavors!'

Question: 'Is the time period mentioned in the sentence *less than three months?*
filler 31, group 1

As a final note, all items were randomized while at the same time avoiding excessively long chains of similar trials. In this way, participants were prevented from (subconsciously) learning about the distribution of the stimuli and – in the case of the fillers – from developing strategies that could interfere with the test items.

3.2.3 Procedure

The participants received a link and were presented with an online questionnaire. They were asked to listen carefully to the audio before answering each question and at the same time read the written version. Then, they were asked to answer a question about the sentence they had just listened to. Submitting 'next button' was delayed for as long as each audio clip would last +5 seconds, in order to make sure that participants would listen to the recordings. 'Force Response' logic was imposed on both items and fillers.

3.3 Results

I analyzed the mean scores of 'yes' responses per condition and per item; the results are given in Table 2 (cf. Figure I).

Exclamative sentences with a bare singular complement (test items) scored on average **76.9%** on a 'high quantity' reading (mass types/condition 1: 78.4%; count types/condition 3: 75.3%).

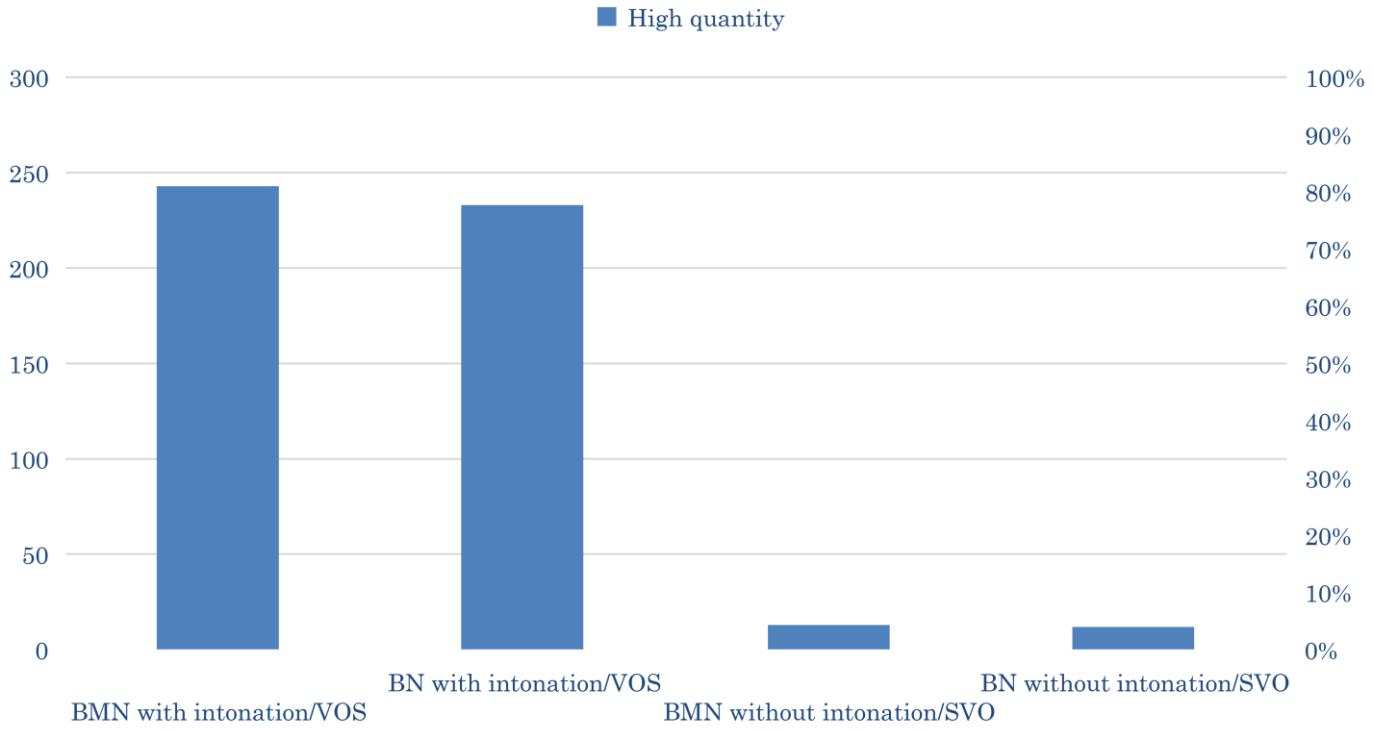
Declarative sentences with a bare singular complement (controls) scored on average **3.9%** on 'high quantity' readings (mass types/condition 2: 4.28%; count types/condition 4: 3.61%).

Table 2
Means of 'yes' responses per condition ('yes' = 'high quantity' reading)

	Condition 1 Mass nouns [+intonation, VOS] (test items)	
Items	Series A → group 1 Means	Series B → group 2 Means
1	90.6%	76.6%
2	62.5%	83.3%
3	78.1%	93.3%
4	78.1%	60.0%
5	81.2%	80%
	Condition 2 Mass nouns [–intonation, SVO] (controls)	
	Series A → group 2	Series B → group 1
6	3.3%	3.1%
7	3.3%	3.1%
8	10.0%	0.0%
9	10.0%	0.0%
10	10.0%	0.0%
	Condition 3 Count nouns [+intonation, VOS] (test items)	
	Series C → group 1	Series D → group 2
11	71.9%	83.3%
12	78.1%	73.3%
13	75.0%	60.0%
14	75.0%	66.6%
15	84.4%	80%
	Condition 4 Count nouns [–intonation, SVO] (controls)	
	Series C → group 2	Series D → group 1
16	10.0%	0.0%
17	3.3%	0.0%
18	13.3%	0.0%
19	3.3%	3.1%
20	3.3%	3.1%

A chi-square test of independence was performed to examine the relation between exclamative sentences and the interpretation of bare singular complements relative to quantity. The relation between these variables was significant: χ^2 (6, N= 1240) = 807.7, p = .0001. This confirms my alternative hypothesis and suggests that exclamatives with special intonation and VOS order (test items) trigger a 'high quantity' reading in complexes containing a bare singular argument.

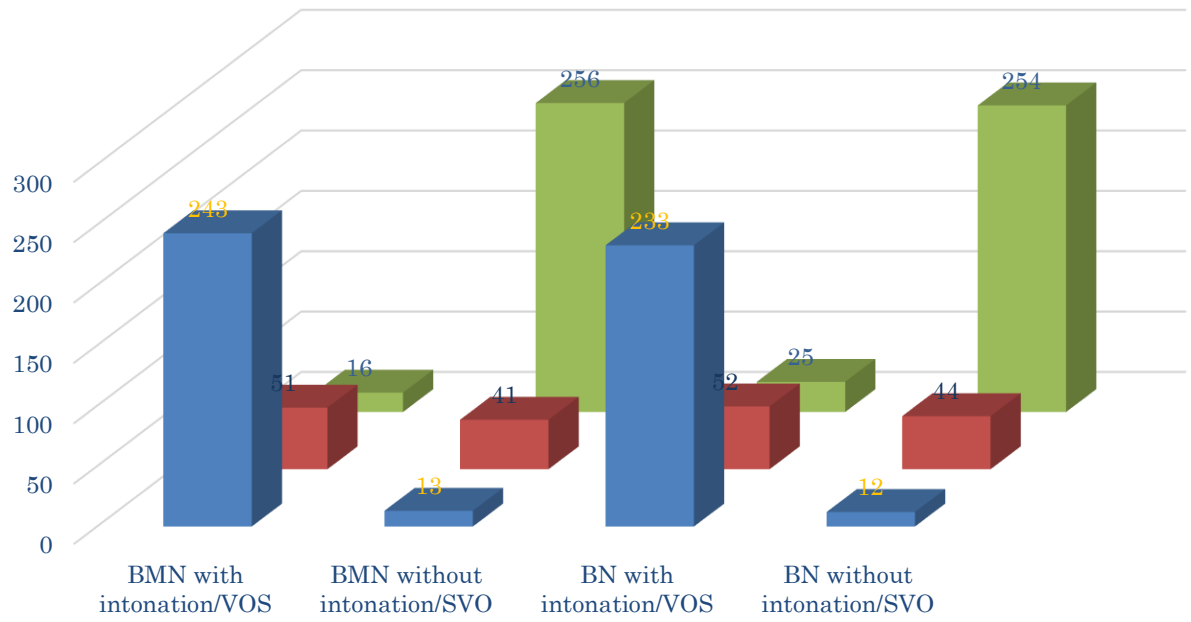
Figure I: Number (y axis, left side) and percentages (y axis, right side) of 'yes' (=high quantity) responses per condition. The pareto chart lists the data/occuring issues in an order from most frequent to least frequent.



The relation between noun type (i.e., mass/count) and the emergence of the effect was not significant: χ^2 (2, N = 1240) = 2.195, p = 0.3336, which suggests that a 'high quantity' reading arises regardless of the mass/count distinction.

As for the control conditions, BN's were interpreted as referring to singular objects in conformity with their grammatical number. BMN's, too, were judged not to refer to high quantities. In fact, since mass nouns were unspecified for quantity, they were expected to score higher on 'possibly' answers; but this did not turn out to be the case, as can be inferred by the quite symmetric distribution of 'possibly' answers across the 4 conditions (see Figure II). Notably, count nouns scored higher on 'possibly' answers (n=44) than 'mass nouns' (n=41) in declarative sentences.

Figure II: Quantities of bare singular arguments in sentences with and without intonation and canonical word order



Note: The numbers on top of the columns correspond to the number of answers the participants gave per condition

High quantity Possibly High quantity No High quantity

3.4 Discussion

The results confirmed my hypothesis that argumental bare singulars in Greek have a different interpretation relative to number in exclamative sentences. The high degree component of exclamatives can be interpreted in terms of extreme quantities in the marked cases. A gradable interpretation is also possible as we will see later in the discussion but this is not my main focus here. Before I proceed with explaining what triggers the inference, a number of comments regarding the experiment are in order.

First, the participants interpreted the mass-type controls (condition 2) in the same was as they interpreted the count-type controls (condition 4). In both control conditions, bare nouns were judged incompatible with a

'high quantity' reading. While this is not surprising for count nouns, which denote in the atomic domain, it somewhat was for mass nouns as they were unspecified for quantity. In the sentence *Mary ate mustard*, there is no information as to how much mustard Mary consumed; Mary *possibly* ate a lot of mustard or perhaps she did not. Yet, mass types scored low on 'possibly' answers.

One plausible explanation for this outcome may be the structure of the questions. Specifically, all questions were of the type 'Is/are there a lot of [noun] mentioned in the sentence?'[11] instead of 'Is/are there a lot of [noun] in the sentence?'. This formulation aimed to have the participants judge the corresponding quantities based on what was *explicitly* mentioned in a sentence or what could be inferred from prosodic cues. The alternative formulation was dispreferred in order to avoid the risk that participants abstract from the content of a sentence and start making random guesses. This would result in too many 'possibly' answers regardless of in which condition. Thus, in the absence of any explicit indication of high quantity, most participants judged mass controls incompatible with a high quantity reading.

This brings us to the second point, which is how participants used 'possibly' in answering the questions. Let us start with two examples from the critical items:

(52) *ERIXA* *VENZINI* *sto* *pukamiso* *egho,* *jia* *na*
threw benzine in.the shirt I for to
fiji *o* *lekes!*
go DET stain
'I put *a lot of* benzine on the shirt, in order for the stain to go away!'

condition 1, item 4, group 2
(Scores: 'high quantity'=60.0%, 'possibly high quantity'=28.5%, 'no high quantity'=11.5%)

[11] It is a little difficult to accurately translate the Greek sentence *Γίνεται λόγος για πολλές/πολλά/πολύ/πολλή* X *στην πρόταση;* in English. Glossing may be of help:
Ghinete loghos jia [*poles plastikes* / *poli mustardha*] *stin protasi?*
made speech for many plastic.surgeries much mustard in.the sentence
'Is there talk of many plastic surgeries / much mustard in the sentence?'.

One possible explanation for the low score on 'yes' answers here is world knowledge in combination with the lexical semantics of the nouns *benzine*, *shirt* and *stain*. Benzine is a very drastic acidic solvent mixture. It would, therefore, make sense not to use much of it to remove a single stain on a single shirt. However, the 'no high quantity' responses were considerably fewer than the 'possibly high quantity' ones, which suggests that most participants perceived the prosodic cue but they were slightly hesitant to affirm that much of the substance was used with a decisive 'yes'.

The other example I am considering here arguably merits an alternative interpretation of how 'possibly' responses were motivated:

(53) *I* *Polina* *teliose* *tin* *dhiatrivi* *tis.*
DET polina finished DET dissertation hers
EHI *PARI* *VRAVIO* *ektote* *afti!*
has taken prize since.then she
'Polina has finished her dissertation. She has received *a lot of* grants ever since!'

condition 3, item 8, group 2

(Scores: 'high quantity'=60.0%, 'possibly high quantity'=27.5%, 'no high quantity'=12.5%)

It is perhaps context that may have hampered a 'high quantity' reading for some participants here. There are temporal restrictions on how many prizes one can receive after one finishes her dissertation. Such restrictions are in conflict with a reading in which the woman has received many grants. Also, the modifier *ektote* 'since then' is a little obscure as it does not specify when the woman finished her dissertation. Consequently, the participants may have been in need of material that justifies a large number of distinctions. If this account holds, then 'possibly' here is interpreted along the lines of 'I do not know' or 'neither yes nor no'.

Besides test items, it is worth looking at how 'possibly' was used in fillers, too. Remember that 1/3 of the fillers were created in such a way as to elicit a 'possibly' answer. The aim was to balance between the three

answer choices. This was achieved by investing the questions of some fillers with obscurity. Participants had to estimate or conclude something without sufficient information or any strength of feeling.

Some comments were very illuminating in this respect: (i) "The sentences were clear but some answers were not that obvious since a 30-minute delay may be for some people and on certain occasions much and for others little time" (the woman here is implying filler 25 in group 1); (ii) "The sentences and audios were clear. Some questions were not always clear with reference to the text in the sentence"; (iii) "The sentences were clear in relation to how the voice was colored and the meaning. However, some answers could not be determined with certainty". The authors of (ii) and (iii) must be referring to fillers as their answers in all critical and control conditions were either 'yes' or 'no' and never 'possibly'.

Upon reflection, participants did not seem to like it when they felt they had to choose 'possibly' as an answer; this can be inferred from the subtle discontent implied in the comments above. It is possible that the intentional obscurity in some filler questions resulted in developing specific strategies as to when 'possibly' seemed a fitting response and that would amount to cases of vagueness ('possibly'='I do not know'). If this holds, it makes sense to assume (and justify) a reluctance on the part of the participants to use 'possibly' in mass-type controls as this answer was perhaps reserved for sentences with obscurity.

As a third point, I wish to mention that exclamatives can have a degree-related effect on V+BN complexes. On a gradable reading, a certain degree property holds of an extreme degree, such that it exceeds certain contextual standards (Rett, 2009, 2011). For example, in *What an intelligent boy Alan is!* the speaker exclaims about the exceptionally high degree of a property, i.e., Alan's intelligence (see Chapt. 4). The high-degree reading does not preclude the high-quantity reading nor does it require it. To illustrate:

(54) *Kerdhise* *to* *loto.* *HTIZI* *tora* *SPITI*
won DET lottery builds now house
aftos *stin* *Anaviso!*
he in.the Anavisos

(a) 'He won the lottery. Now he's building *a lot of* houses in Anavissos!' (+quantitative, –gradable)

(b) 'He won the lottery. Now he's building a (=1) magnificent/super luxurious house in Anavissos!' (–quantitative, +gradable)

(c) 'He won the lottery. Now he's building *a lot of* magnificent/super luxurious houses in Anavissos!' (+quantitative, +gradable)

Later, in Chapter 5, I will show that the processes that trigger the 'high quantity' inference are similar to the ones that generate the 'high degree' inference.

Last but not least, I would like to consider some limitations with respect to the data I used. First, all predicates were in perfective aspect giving rise to a habitual/occupational reading. It is worth investigating what the effect of exclamatives on predicates with progressive or imperfective aspect would be. Is it still possible to get a 'high quantity' interpretation there, too? Additionally, what is the impact of exclamatives on bare plural arguments? Do we still get an abundance reading when there is plural morphology on the noun?

Having provided empirical grounding for my intuitions about the semantics of bare singulars in exclamatives, I now set out to analyze and interpret the collected data.

Part III: The analysis

This part is devoted to accounting for the 'high quantity' interpretation of V+BN complexes. First, in Chapter 4, I apply Zanuttini & Portner's (2003) exclamativity diagnostic tests to the Greek sentences under analysis. Here, too, I show that these sentences exhibit all components associated with exclamativity (i.e., they involve a scalarity component, a surprise/unexpectedness component and an evaluativity component). Next, in Chapter 5, I deal with my main question which is why bare singular complements in Greek receive a 'high quantity' interpretation *only* in exclamatives. Using Zanuttini & Portner's (2003) semantics/pragmatics analysis, I argue that the produced interpretation is derived indirectly from the the distinct semantic properties of exclamatives via pragmatic processes of 'widening' (Sect. 5.2). My analysis shows that pseudo-incorporated nominals are in fact number neutral and this property surfaces in exclamatives. The analysis closes with some remarks on anaphora and restrictiveness (Sect. 5.3).

4 Verb-initial exclamatives in Greek

The purpose of this chapter is to establish the exclamative status of the sentences under analysis. To this end, I use the diagnostic tests proposed in Zanuttini & Portner (2003) (henceforth Z&P).

4.1 Tests for exclamative status

In their study of *wh*-exclamatives, Z&P (2003:46) offer a battery of tests for exclamative status. They argue that sentences with the relevant sentential force must exhibit the following properties: factivity, scalar implicature and inability to function as answers to yes/no questions. In the following

sections, I apply these diagnostics to the Greek sentences under investigation. I will be referring to the following example throughout the discussion.

(55) (*Uuh!*) *EHI KANI PLASTIKI* *s'afton i Merula…!*
INTRJ has made plastic.surgery at.him DET Merula
'Mary has had *a lot of* plastic surgeries (or a wildly successful surgery) in his clinic!'

4.1.1 Factivity

The first property of exclamatives is factivity. Exclamatives are factive because according to Grimshaw (1976) in that their propositional content is presupposed (see also Michaelis & Lambrecht (1996) and Michaelis (2001). Under this view, exclamatives do not assert that a proposition is true as declaratives do; rather, they express an emotive emotive attitude (i.e., surprise/amazement) towards a given proposition.

Z&P (2003) mention that one test for factivity is whether an exclamative can be embedded under factive predicates as in (56):

(56) Mary knows/*thinks/*wonders how very cute he is.

Additionally, when exclamatives are embedded under factive verbs in the first person singular, they cannot be negated as in (57):

(57) *I don't know how very cute he is.

For the Greek data, it is impossible to test for factivity using embeddability as a tool in that verb-initial exclamatives lack a form that permits embedding.

(58) * *Xero EHI KANI PLASTIKI s'afton i Merula.*
know has made plastic.surgery at.him DET merula
Intended: 'I know <u>that</u> Mary has had a lot of plastic surgeries (or a wildly successful surgery) in his clinic.'

However, uttering a sentence like (55) presupposes that the speaker and the addressee are knowledgeable about the underlying fact or proposition, namely that Patrick has performed on Mary. This can be seen in the following example, where a non-factive predicate is not acceptable in the follow-up statement[12]:

(59) A: (*Uuh!*) *EHI KANI PLASTIKI s'afton I Merula…!*
INTRJ has made plastic.surgery at.him DET Merula
'Mary has had *a lot of* plastic surgeries (or a wildly successful surgery) in his clinic!'
B: I know. (*factive*)
B': *I'm wondering too. (*non-factive*)

The propositional content of declaratives and interrogatives, on the other hand, is not presupposed:

(60) *Ehi kani plastiki s'afton i Merula.*
has made plastic.surgery at.him DET Merula.
'Mary has had *a* plastic surgery in his clinic.'

(61) *Ehi kani plastiki i Merula?*
has made plastic.surgery DET Merula.
'Has Mary had a(ny) plastic surgery?'

The speaker in (60) updates the discourse by asserting that the proposition is true (there need not be any common ground or set of common assumptions

[12] This test is proposed by Brandner (2010).

between speaker and hearer) while in (61) the speaker asks whether the proposition is true.

4.1.2 Scalar implicature

The second property is 'scalar implicature'. Exclamatives "introduce a conventional scalar implicature to the effect that the proposition they denote lies at the extreme end of some contextually given scale" (Z&P, 2003:47). In other words, exclamatives express the speaker's surprise that a person or an object has a property to an extreme degree along a contextually determined scale (Castroviejo (2006), Collins (2005), Michaelis & Lambrecht (1996), Rett (2009, 2011)).

The scalarity component can be interpreted in terms of amount besides degree (Bosque, 2017). Thus, in *How intelligent Alan is!* the speaker exclaims about the high degree of a property, i.e., Alan's intelligence, while in *What languages Mimi speaks* the surprise is directed at the amount of languages spoken by Mimi (Rett, 2008, 2009, 2011).

Z&P (2003) show that exclamatives are conventional implicatures and as such they are non-defeasible and detachable (see below).

The Greek example in (55) can receive both a quantitative (i.e., extreme number of surgeries) and a gradable interpretation (i.e., an extremely successful surgery) as we saw. In either interpretation, a scalar implicature arises as there is reference to an extreme end along a scale[13]. This implicature cannot be canceled (non-defeasible) as (62a) and (62b) show:

[13] Note, however, that the degree of a property or the quantity of a thing must be objectively and not situationally exceptional (Rett, 2009). Thus, (55) is licensed in a context where Mary has had an extreme number of surgeries, say 15 or 20 (hopefully microsurgical), but not in a context where Mary had four surgeries and the speaker had expected her to have only two.

(62) (*Uuh*!) *EHI KANI PLASTIKI s'afton i Merula…!*
INTRJ has made plastic.surgery at.him DET merula
a. ?? *An ke ohi tipota to ipervoliko.*
if and NEG nothing DET excessive
'But nothing excessive in number.'
b. ?? *Ala ohi ke tipota to exeretika petihimeno.*
but NEG and nothing DET exceedingly successful
'But nothing extremely successful.'.

Finally, the implicature is also detachable, which means that the high degree/quantity inference disappears if a change in form occurs. As the initial sentence in (62(=(55)) cannot be substituted for by another expression or clause that both receives a quantitative and a gradable reading, I provide for each interpretation a separate example. The fact that the follow-up statements are acceptable in (63) and (64) shows that the change in form resulted to no implicature.

(63) *E, ehi kani kabosi plastiki s'afton i Merula!*
INTRJ has made quite.some plastic.surgery at.him DET Merula
'Mary has had quite a number of plastic surgeries in his clinic!'
An ke ohi tipota to ipervoliko.
if and NEG nothing DET excessive
'But nothing excessive in number.'

(64) *Kali i plastiki pu ekane s'afton i Merula!*
good DET plastic.surgery which made at.him DET Merula
'Quite good the plastic surgery Mary had in his clinic!'
Ala ohi ke tipota to exeretika petihimeno.
but NEG and nothing DET exceedingly successful
'But not something extremely successful.'

4.1.3 Question/Answer pairs

The third criterion for identifying a class of structures as exclamatives is inability to function in question/answer pairs (Z&P (2003:47)). This diagnostic serves to show that despite the morphological/syntactic similarities between *wh*-interrogatives and *wh*-exclamatives, exclamatives do not aim at asking a question or receiving a response (as they do not introduce a set of possible answers, like interrogatives do). The test also shows that exclamatives differ from declaratives in that they cannot function as answers to questions (since their propositional content is presupposed).

First, unlike interrogatives (65),(67), exclamatives cannot be used as questions (66),(68).

(65) A: How tall is he? B: Seven feet.
(66) B: How very tall he is! B: *Seven feet./ He really is!
(67) How tall is he? Seven feet or eight feet?
(68) How very tall he is! *Seven feet or eight feet?

Z&P, 2003:48

Additionally, unlike declarative sentences, exclamatives cannot be used to answer a question.

(69) A: How tall is Tony's child? B: *How very tall he is!

We can use this test for the Greek data but with a necessary modification. Given that the exclamatives under analysis lack an overt *wh*-element, we can postulate a typological affinity not with *wh*-interrogatives but with yes/no interrogatives. Compare the minimal pairs (70), (71) and (72), (73):

(70) A: *Ehi kani i Merula plastiki s'afton*?
has made DET Merula plastic.surgery at.him
'Has Mary had a plastic surgery in his clinic?'
B: *Ne, ehi kani.*
yes has made
'Yes, she has.'

(71) A: *EHI KANI PLASTIKI s'afton i Merula…!*
has made plastic.surgery at.him DET Merula
'Mary has had *a lot of* plastic surgeries in his clinic!'
B: * *Ne, ehi kani.*
yes has made
* 'Yes, she has.'[14]
C: *Praghmati! Apistefto!*
indeed unbelievable
'Indeed! Unbelievable!'

(72) *Ehi kani i Merula plastiki s'afton*? *Ne i ohi?*
has made DET Merula plastic.surgery at.him yes or no
'Has Mary had a plastic surgery in his clinic? Yes or no?'

(73) *EHI KANI PLASTIKI s'afton i Merula…! *Ne i ohi?*
has made plastic.surgery at.him DET Merula yes or no
'Mary has had *a lot of* plastic surgeries in his clinic! * Yes or no?'

Unlike (70), (71) fails to introduce a question in the discourse. Similarly, while the question in (72) can be succeeded by a follow-up question that serves to narrow down the set of possible answers, (73) cannot. It follows

[14] If a yes/no response is given to an exclamative, it does not aim to affirm or deny the propositional or truth-conditional content of the sentence; it rather expresses the hearer's agreement or disagreement with the speaker's evaluation of degrees or quantities (i.e., how extreme these are) (as in (71C)); thus, a yes/no response would be expressed in relation to the evaluational aspect of the utterance and not the propositional.

that sentences like (55) are typologically different from yes/no interrogatives.

Finally, the marked cases are also distinct from declarative sentences since they cannot be used as answers to questions.:

(74) A: *Ehi kani plastiki i Merula s'afton?*
has made plastic.surgery DET Merula at.him
'Has Mary had a plastic surgery in his clinic?'
B: * *EHI KANI PLASTIKI s'afton i Merula…!*
has made plastic.surgery at.him DET Merula
*'Mary has had *a lot of* plastic surgeries in his clinic!' (read as equivalent to *The plastic surgeries Mary has had in his clinic!*)

To conclude, the Greek sentences under analysis meet all the criteria for being identified as exclamatives. First, their propositional content is presupposed (the 'factivity' criterion); second, their illocutionary force is to express an emotive/evaluative attitude towards an extreme degree/quantity within a contextually determined scale (the 'scalar implicature' criterion); finally, they cannot be used either as questions (contrary to interrogatives) or answers to questions (contrary to declaratives). Now, that the link between exclamative type and bare singulars with a 'high quantity' inference is established, it remains to see what exactly generates this effect.

5 Greek exclamatives and 'widening'

The main purpose of the current chapter is to explain what generates the plural reading of Greek bare singulars in exclamatives. The theory I am using is the one proposed by Z&P (2003). First, I overview the main ingredients of their analysis focusing mainly on the semantic properties that drive the sentential force of exclamatives (Sect. 5.1). Second, I examine how the two proposed components of exclamative meaning (i.e., factivity and widening) can be used to account for both the 'high degree' and

(particularly) the 'high quantity' interpretation of pseudo-incorporated constructions in Greek. (Sect. 5.2). Finally, I present and briefly comment on data regarding discourse anaphora and restrictiveness in exclamatives (Sect. 5.3).

5.1 'Domain widening' – Zanuttini & Portner (2003)

Clause type is defined by Sadock & Zwicky (1988) as a pairing of form and function in discourse. A major question with respect to this characterization is whether and how a sentence's force is represented in the syntax. Z&P (2003) propose a semantics-oriented analysis focusing on exclamatives. This section overviews the main components of the analysis that will be used to account for the Greek data.

First, the authors argue that *wh*-exclamatives have two syntactic structures: an abstract morpheme FACT and a WH quantificational operator-variable structure. These structures do not encode force directly, but are rather interpreted compositionally, thus contributing "the crucial two components of meaning to the denotation" of exclamatives (Z&P, 2003:40). These semantic components are: (i) factivity or else presupposed propositional content, and (ii) a set of alternatives. This assumes that exclamative force is not encoded by any formal feature directly but is derived from the two semantic properties which are in turn represented in the syntax. Under this view, semantics mediates the pairing of form and use. Since my account will not focus on syntax, I will dispense with the syntactic realization of these properties.

Second, having identified the two meaning components, the authors go on to account for the use or sentential force of exclamatives, which is interpreted in terms of the fundamental concept of 'widening'. For their main analysis, Z&P use two groups of exclamative sentences in Paduan: one that contains a *wh*- phrase and one that does not, in order to show how their account works for different structures of the same type. The two distinct elements underlying the analysis are 'factivity' and 'widening' and it is

argued that any clause exhibiting these two components cannot be any other type but exclamative (cf. Sect. 4.1).

Both these elements are represented in the syntax. $R_{Factivity}$ is an element that introduces a presupposition that the propositional content of the sentence is true and $R_{Widening}$ is an element that represents the pragmatic operation of widening. The latter has the semantics of a quantificational operator (Z&P, 2003:50). The authors illustrate how this operator works with the following example, where two friends are discussing which hot peppers one of their friends eats:

(75) *Che roba che l magnà!*
what stuff that he eats
'The things he eats!'

Paduan; Z&P, 2003:50

To begin with, the sentence in (75) presupposes that the friend at question eats something ($[\![$Che roba che l magnà!$]\!]_w$ = {p: p is true in w and ∃a [p = 'He eats a']} (p.52). "The domain of quantification for $R_{Widening}$, let us call it D1, is a set of peppers that contains (in increasing order of spiciness): poblano, serrano, jalapeño, and güero" (Z&P, 2003:50). Given that some people like spicy food and particularly chilis, it is expected that most of them eat poblano, serrano and presumably jalapeño. Uttering (75) in the suggested context implicates that the friend at question eats not only the peppers in D1 but also spicier types including perhaps the habanero, which is the world's hottest chili.

Under this view, the force of an exclamative like the one in (75) causes the quantificational domain for $R_{Widening}$, D1, to be expanded towards a domain D2, such that it includes an additional type, that of habanero. Part of the semantic definition of domain widening pertains to the ordering relation between the entity types constituting the set of alternatives in D1. The authors argue that these types are determined contextually. Thus in (75), which is uttered in the context of eating extremely hot peppers, the

ordering relation regarding the subparts in D1 is based on spiciness, such that the 'new' elements in D2 are by necessity 'greater' than the elements in D1 with respect to this ordering relation. (76) gives the semantic definition of widening:

(76) WIDENING: For any clause S containing $R_{Widening}$, widen the initial domain of quantification for $R_{Widening}$, D1, to a new domain, D2, such that

(i) $[\![S]\!]_{w,D2,<} - [\![S]\!]_{w,D1,<} \neq 0$ and

(ii) $\forall x \forall y[(x \in D1 \,\&\, y \in (D2 - D1)) \rightarrow x < y]$.

Z&P, 2001:52

The role of $R_{Factivity}$ is to introduce a presupposition that the elements/propositions newly added to the sentence's denotation via domain widening are also true. Thus, uttering (75) entails that the proposition *He eats habaneros*, i.e., the hottest pepper, is also a true and presupposed proposition besides the alternative propositions *He eats poblanos, He eats jalapeños* etc. (77) gives the semantic definition of factivity:

(77) FACTIVITY: For any clause S containing $R_{Factivity}$ in addition to $R_{Widening}$, every $p \in [\![S]\!]_{w,D2,<} - [\![S]\!]_{w,D1,<}$ is presupposed to be true.

Z&P, 2003:54

In *wh*-exclamatives, it is precisely the *wh*- phrase that denotes the set of alternative values. This assumption is based on certain syntactic and functional similarities between *wh*-exclamatives and *wh*-interrogatives with respect to their propositional content. The *wh*-phrase in interrogatives is taken to denote also a set of alternative propositions, this time identified as the possible answers to the question. Yet, the difference between the two types is their force, that is, questions contrary to exclamatives do not involve widening (and, also, as we saw, exclamatives do not aim at answering questions).

Let us now see what happens with sentences lacking an overt *wh*-element, which are similar to the Greek cases. The authors examine these exclamatives in parallel to yes/no questions and propose a somewhat different application of widening.

(78) *No ga-lo magnà tuto!*
NEG has-SG.CL eaten everything
'He ate everything!'

Paduan; Z&P, 2003:53

The exclamative in (78) implicates that the kid ate his whole meal[15]. The sentence can be uttered in a situation where one does not expect their kid to eat all his food and yet the kid does eat everything. The speaker assumes that the likelihood of the proposition is slim, whereas the utterance asserts that it is in fact true. It is this contrast that induces a sense of unexpectedness or surprise.

Under this consideration, Z&P (2003:53) propose that in this case the domain of quantification for $R_{Widening}$ is the set of events or situations under discussion (D1={*'He didn't eat everything*}). Uttering (78) causes D1, which includes 'normal' eating events/situations, to be expanded to a domain D2, which includes 'exceptional' eating events/situations (D2={*'He ate everything*}). $R_{Factivity}$ introduces a presupposition that the exceptional proposition added to the sentence's denotation after the extension of the domain is true. Thus, factivity and widening are the two components of meaning that drive the sentential force of both *wh*- and yes/no exclamatives.

[15] Note that (78) contains negation. However, it is argued on the basis of the functional and syntactic similarities between yes/no exclamatives and yes/no interrogatives that this negation is semantically inert (treated as an instance of 'expletive' negation (Z&P, 2003:54). Consider the negated question *Didn't he eat everything?* where the only true answer could be *He did.* This predicts that the propositional content of both negated yes/no questions and negated yes/no exclamatives should be the same; in this case *p*= {'*He ate everything.*}.

To conclude, the key-points of Z&P's (2003) formal theory are the following:

i. Exclamatives have two fundamental syntactic components: a factive operator and a *wh*-operator
ii. These components are compositionally interpreted and give rise to two semantic properties that are present in all exclamatives (i.e., factivity and set of alternatives)
iii. The sentential force of exclamatives is indirectly derived from two distinct features, i.e., 'factivity' and 'widening'
iv. Widening is a semantic operator that involves the extension of a quantificational domain D1 to another domain D2, such that the set of alternative propositions (=entity types or events) in D2 are 'greater' than those in D1 with respect to a contextually determined ordering relation. This captures the 'unexpectedness' effect
v. Since exclamatives are factive, it is presupposed that the proposition added to the sentence's denotation through widening is true

In the following section, I investigate how the formal theory by Z&P (2003) can account for the 'high quantity/degree' interpretation of pseudo-incorporated constructions in Greek.

5.2 A widening-based approach to Greek verb-initial exclamatives

To start with, the Greek sentences under analysis lack an overt *wh*-phrase[16], which means that widening applies to some other element. This element is intuitively the entire V+BN constituent[17].

As in the Paduan example (78), here, too we are faced with instances where the element undergoing widening denotes a set of events/situations. Yet, the yes/no exclamative in (78) cannot serve as a direct parallel to the Greek data, because in the Greek examples the affective response of the speaker is not directed at the very occurrence of an event, i.e., it is not exceptional that *p* is true, but rather at the quantity or the quality of these events.

Thus, the events under discussion are those denoted by the whole V+BN complex. Let us remember the famous 'surgery' example from chapter 4.

(79) (*Uuh*!) *EHI KANI PLASTIKI s'afton i Merula…!*
INTRJ has made plastic.surgery at.him DET merula
(a) (Wow!) Mary has had *a* (wildly successful) surgery in his clinic!'
(b) (Wow!) Mary has had *a lot of* plastic surgeries in his clinic!'

The sentence above considers events of surgery-having. As shown in the translations, a speaker can utter (79) either to exclaim about the fact that a certain gradable property relative to a surgery-having event holds of an extreme degree or to express surprise at the fact that the number of plastic surgery-having events is exceptionally large. In both cases, Mary remains

[16] There exist, however, a number of alternative expressions that include a *wh*-phrase. To illustrate:
Ti plastiki ehi kani afti kale!
what plastic.surgery has made this good.VOC
(a) '*Oh dear!* What plastic surgeries she has had!' (amount reading)
(b) '*Oh dear!* What a plastic surgery she has had!' (gradable reading).

[17] Note that the V+BN complex in these sentences is attracted to left periphery, like the *wh*-phrase does in *wh*-exclamatives. Perhaps there is some correlation between the left periphery and the elements undergoing widening.

the experiencer of the relevant situations. Let us now see how a domain widening approach can account for both readings in (79).

5.2.1 The gradable reading

Suppose two friends are discussing about the plastic surgery their old classmate Patrick has recently performed on their friend Mary. Both friends are familiar with numerous cases of people who have undergone a similar procedure, others with moderately successful results and others with quite successful results (as is 'normally' expected in the relevant cases). Mary's case, however, is beyond imagination, thanks to Patrick's surgical artistry. In this context, uttering (79) implicates that Mary's surgery-having situation exceeds the range of alternatives previously under consideration, i.e., the range of success plastic surgeries 'normally' have.

Applying Z&P's (2003) terminology, we can identify the V+BN complex in (79) as the structure that undergoes widening. Accordingly, the domain of quantification for $R_{Widening}$, D1, is intuitively thought of as a set of alternative events/situations. Recall that the ordering relation between the subparts of the domain is determined contextually according to Z&P (2003); thus, in the suggested context, the ordering relation between the surgery-having events should be based on a qualitative aspect of these events, let us say success. This said, the subparts of D1 are the following events:

(80) D1 = {moderately successful surgery-having event, quite successful surgery-having event, highly successful surgery-having event}

Uttering (79) causes D1 to be expanded to another domain D2 that includes events of 'exceptionally successful plastic surgery-having'. The outcome of domain widening is that the proposition *Mary has had an exceptionally successful plastic surgery* is added to the sentence's denotation. A certain syntactic element $R_{Factivity}$ (perhaps an abstract factive morpheme as

proposed by Z&P) introduces a presupposition that the newly added proposition is true.

5.2.2 The quantitative reading and number neutrality

Accounting for the quantitative interpretation of V+BN complexes in exclamatives adds an extra level of complexity, which is due to the fact that the complement of the verb, in our case *plastiki* 'plastic surgery', has singular morphology and yet receives a plural (high quantity) reading. If Greek bare singulars are semantically singular, the initial domain of quantification should be a set of events of having strictly one surgery. However, this is impossible, because events of having strictly one surgery cannot be ordered according to patient quantity (while they could be ordered according to success). To circumvent this problem, we must abandon the idea that the bare singular is strictly atomic. Let us flesh this out with some more detail.

As a point of departure, let us make some amendments to the story above so that a quantitative use of (79) can be supported. In the current version, the two friends meet each other shortly after a reunion with their old classmates and start sharing their impressions of the party. At some point, they are talking about Patrick and Mary's affair and they are both particularly intrigued by how fresh and young Mary still looks. One friend utters (79) about Mary, which, in the proposed context, does not implicate that the surgery Mary had was in any respect 'exceptional', but rather that the number of surgeries (or, better, surgery-having events) Mary went through is 'excessively' large.

We can now see how this inference is derived. Recall that for the gradable reading, the domain of quantification for $R_{Widening}$ was a set of surgery-having events (alternatives) ordered according to success. Each of these surgery-having events may involve *just* one surgery and what differentiates between the alternatives is the degree of success. For the quantitative reading, the ordering relation between the events must be

based on quantity (this is picked up from context). For this reading, it is impossible to assume that each event involves *just* one surgery, because it would be impossible to order one-surgery-having events according to quantity. Only if the option of having multiple patients is included in the first place, or else, the initial domain of quantification, does it make sense to differentiate events according to patient quantity. That means that the denotation of the bare singular cannot be atomic; rather, it *must* be number neutral and as such support both an atomic and a non-atomic reading.

This said, the subparts of the initial domain of quantification for $R_{Widening}$, D1, are surgery-having events in an increasing order of patient quantity. These values are intuitively drawn from context; thus, in the current example, the two friends seem to be comparing the number of surgery-having events Mary has had to the corresponding number of like events women such as Mary are expected to have had. Supposing Mary has had 10 surgeries but other women who are into cosmetic treatments do not choose to have more than 3 surgeries (the numbers are arbitrary), we can compare the V+BN's denotation with respect to two domains of quantification, D1 and D2, as follows:

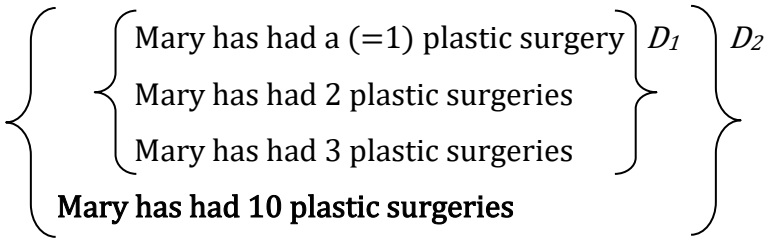
(81) a. D1 = {one-surgery-having events, two-surgery-having events, three-surgery-having events}
b. D2 = {three-surgery-having events, four-surgery-having events, …, ten-surgery-having events}

As usual, the role of $R_{Factivity}$ is to introduce a presupposition that the 'new' proposition *Mary has had an exceptionally large number of plastic surgeries*, is true. (82) summarizes the claims made above in a schematic way:

(82) a. *EHI KANI PLASTIKI i Merula…!*
has made plastic.surgery DET Merula
'Mary has had *a lot of* plastic surgeries in his clinic!'

b. $[\![\textit{EHI KANI PLASTIKI i Merula…!}]\!]_w$ =
{p: p is true in w and ∃a [p='Mary has had plastic surgery']}

c. $[\![\textit{EHI KANI PLASTIKI i Merula…!}]\!]^{D_{1/2}}$ =



This reasoning predicts that the 'high degree' inference in exclamatives is available both with bare singulars and with their full-fledged indefinite DP's, while the 'high quantity' inference is available only with bare singular nouns. Compare the minimal pairs in (83) and (84):

(83) *EHI KANI MIA PLASTIKI i Merula…!*
has made INDEF plastic.surgery DET Merula
(a) 'Mary has had an *exceptionally successful* plastic surgery!'
* (b) 'Mary has had *a lot of* plastic surgeries!'

(84) *EHI KANI PLASTIKI i Merula…!*
has made plastic.surgery DET Merula
(a) 'Mary has had an *exceptionally successful* plastic surgery!'
(b) 'Mary has had *a lot of* plastic surgeries!'

To conclude, the 'high quantity/degree' interpretation of V+BN complexes in Greek is a pragmatic inference derived from the two semantic components of exclamatives, i.e., factivity and widening. In the absence of a WH operator, the domain of quantification is intuitively thought of as a set

of events/situations (alternatives). In cases where the speaker's surprise is directed at a quality- or manner-related property of an event/situation (gradable reading), the ordering relation between the alternatives is determined accordingly (e.g., success of surgery-having events). When the surprise is directed at the extreme quantities of events under discussion (quantitative reading), the ordering relation is based on quantity. This presupposes that the bare singular noun can support both an atomic and a non-atomic interpretation, or in other words, that Greek pseudo-incorporated nouns are in fact number neutral. In the following and last section of Part III, I present some provisional data from exclamatives regarding two other distinct properties of (pseudo-)incorporation, i.e., inability to support anaphora and restrictiveness.

5.3 Anaphora and restrictiveness in exclamatives

Building on from the idea that the interpretation of V+BN complexes in Greek is sensitive to clause-type specifications, this section briefly discusses the behavior of pseudo-incorporated constructions in exclamatives in relation to discourse opacity and restrictiveness (both considered as core elements of (pseudo-) incorporation).

First, bare singular objects in exclamatives can support pronominal anaphora in a consistent manner. Recall that in assertions discourse anaphora is licensed only in a restricted number of contexts (Sect. 2.2.2.2). In exclamatives, however, anaphoric use is consistently permitted in both object and subject position with both telic and atelic predicates. This seems to be at odds with what incorporation theories predict about the referential status of bare nouns (Van Geehnhoven, 1998). In the following examples, I only aim to introduce the linguistic data leaving an analysis for future research.

(85) *TIGHANISE* *PATATA*$_i$ *hthes* *o* *Kostas…!*
fried potato yesterday DET Kostas
'Kostas fried *a lot of* potatoes yesterday!' [Atelic]

(a) *Tu* [***tin***$_i$ / ***tis***$_i$] *efere* *i* *Tula.*
and her.SG.FEM.CL them.PL.FEM.CL brought DET Tula
'Tula brought it/them to him!'

(b) [***Pro***$_i$ *itan* *poli* *nostimi* / ***Pro***$_i$ *itan* *poli* *nostimes!*]
pro.it was.3.SG very tasty.SG pro.they were.3.PL very tasty.PL
'It/they was/were very tasty!'

(86) *TIGHANISE PATATA*$_i$ *mesa* *se* *mia* *ora* *hthes*
fried potato inside in/to DET hour yesterday
o *Kostas…!*
DET Kostas
'Kostas fried *a lot of* potatoes within an hour yesterday!' [Telic]

(a) *Tu* [***tin***$_i$ / ***tis***$_i$] *efere* *i* *Tula.*
and her.SG.FEM.CL them.PL.FEM.CL brought DET Tula
'Tula brought it/them to him!'

(b) [***Pro***$_i$ *itan* *poli* *nostimi* / ***Pro***$_i$ *itan* *poli* *nostimes!*]
pro.it was.3.SG very tasty.SG pro.they were.3.PL very tasty.PL
'It/they was/were very tasty!'

The minimal pairs in (85) and (86) show that bare nouns can be antecedents for anaphors in the subsequent discourse. In (85), the verbal predicate *fried potato* is atelic as the end-point of the activity is not specified. The opposite holds for (86), where the adverbial phrase *mesa se mia ora* 'within an hour' specifies the end-point of the accomplishment.

Additionally, continuations (85a) and (86a) show that the clitic used in object position can either be in the singular (*tin* 'her/it') or plural (*tis* 'them'). On the one hand, the availability of a plural pro shows that there is reference to multiple individuated participants, which is in line with the fact that the quantity of potatoes is high. On the other hand, the use of a

singular discourse anaphor is intriguing, in that it is singular morphologically (i.e., perhaps the anaphor checks for its *φ*-features) but not in reference.

Finally, another point to consider is the ability of a dropped pronominal to function as the subject of the verb in a follow-up statement as shown in continuations (85b) and (86b). Recall from Sect. 2.2.1 that only strong referents (headed by D) can be pre-verbal subjects in Greek (Alexopoulou & Folli, 2010; Kampanarou, 2019). Precisely because bare singulars are referentially weak, they are disallowed in subject position (Sect. 2.2.1). These data seem to suggest that bare singulars in exclamatives have stronger reference than they do in assertions. *How come*? Presumably, insofar as an exclamative's propositional content is presupposed, the entities participating in exclamation (or else the entities whose scalar properties are predicated) must be to *some* degree identifiable (Michaelis, 2001).

A third point I wish to make is that V+BN complexes in exclamatives are not subject to lexical restrictions. Unlike assertions, exclamatives do not require that only specific classes of verbs select a bare singular complement (Sect. 2.2.2.4). In fact, even semi-collective and pure collective predicates[18] can license a bare singular complement in the marked cases, which is impossible in assertions. A comparison with Hungarian is in this respect interesting:

(87) *Mari* [*bélyeget* / *bélyegeket*] *gyűjt.*
mari stamp stamps collects
'Mary collects stamps.'

Hungarian; Farkas & de Swart, 2003:14

[18] Following Dayal (2011), I taker semi-collective predicates to contain sub-events each of which engages an atomic entity to be satisfied (e.g., *gather, collect*), and pure collective predicates to contain sub-events each of which engages more than one entities to be satisfied (e.g., *compare*). In other words, the core processes involved in the former category do not require a plurality of sub-events while the latter do.

(88) *I Maria mazevi* [**ghramatosimo* / *ghramatosima*].
DET maria collects stamp stamps
'Mary collects stamps.'

In (87), the singular *bélyeget* 'stamp' is an acceptable complement of the semi-collective verb *gyűjt* 'collects' which is at first glance intriguing in that the activity of collecting requires multiple participants. The opposite holds for Greek, where only the plural *ghramatosima* 'stamps' is an acceptable complement of the verb *mazevi* 'collects' as shown in (88).

Such restrictions are waived in exclamatives as shown in (89) where the use of the singular *ghramatosimo* 'stamp' is acceptable:

(89) *EHI MAZEPSI GHRAMMATOSIMO i Maria…!*
has collected stamp DET Maria
'Mary has collected *a lot of* stamps!'

Even more interesting is the fact that bare singulars can be complements of pure collective predicates, too, which, to my knowledge, is not possible in any other language. The reason is arguably that the core semantic processes involved in such predicates presuppose a plurality of sub-events (Dayal, 2011). Compare the assertions in (90) and (91) with the exclamative in (92):

(90) *Donka és én* [**jelöltet* / *jelölteket*] *hasonlítunk össze*.
Donka and I candidate candidate compare together
'Donka and I are comparing candidates.'
Hungarian; Dayal, 2011:154

(91) *I Maria ke egho sigrinume* [**ipopsifio* / *ipopsifius*].
DET Maria and I compare candidate candidates
'Mary and I are comparing candidates.'

(92) *SIGRINAME* [*IPOPSIFIO* / *IPOPSIFIUS*] *i* *Maria*
compared candidate candidates DET Maria
ke *egho* *simera* *sti* *dhulja…!*
and I today in.the work
'Mary and I compared *a lot of* candidates today at work!'

While in (90) and (91) only a plural noun would be an acceptable complement of the collective predicate *compare*, in the Greek exclamative in (92) the singular would be as acceptable. These data suggest that exclamatives have no lexical restrictions on V+BN complexes.

However, it should be noted once again, that these sentences are used in informal conversations of casual-to-intimate register and have a very strong performative aspect, too. They also do not come out of the blue. With this in mind, it can be proposed that while exclamatives are devoid of lexical restrictions on licensing bare singular objects, there seem to exist a number of constraints that are more context- and pragmatics-related. For instance, from the somehow unusual sentence in (92) we can make inferences with respect to (i) the mood of the speaker (cheerful, relaxed), (ii) the relationship between the speaker and her addressee(s) (trustful, close) and (iii) the context in which the utterance takes place (informal, casual).

Finally, V+BN complexes in exclamatives need not refer to any prototypical or 'institutionalized' activity as they do in assertions (Alexandropoulou, 2013; Lazaridou–Chatzigoga, 2011). The activity of comparing candidates in (92) is by no means prototypical. This may relate again to the fact that the propositional content of exclamatives is salient and presupposed. Thus, by the time (92) is uttered, events or situations relative to comparing candidates are already part of the common ground shared – thus, in a way, well-established – between speaker and addressee.

6 Conclusions and theoretical implications

This thesis investigated the interpretive effect of verb-initial exclamatives on bare singular (count) objects in Greek. The most important findings are listed below:

1) Greek bare singular (count) nouns receive a 'high quantity' (plural) reading in exclamatives that is not available in declaratives/assertions[19].
2) Greek bare singular (count) nouns are number neutral. Their number neutral interpretation surfaces only in exclamatives in a consistent manner. However, a non-atomic reading is, to a much lesser degree, available also in declaratives/assertions.
3) The properties of Greek bare singular (pseudo-incorporated) nouns are influenced significantly by the denotational properties of exclamatives. Besides receiving a 'plural' reading, they support discourse anaphora in both telic and atelic readings. The anaphoric clitic can be both in object and subject position. Finally, V+BN complexes in exclamatives are not subject to lexical restrictions.

These findings have profound implications for future research. First and foremost, an important contribution of this study was that it showed that the licensing and the produced interpretation of bare singular complements in Greek is sensitive to clausal type. The semantic as well as pragmatic properties of exclamatives were shown to drastically influence the semantic properties of bare nouns which, in turn, suggests that (pseudo-) incorporation phenomena are subject to within-language (besides cross-linguistic) variation.

Thus, the generalizations made about the relevant semantic properties or restrictions may be limited to declaratives, as these properties are elicited exclusively from declarative/assertion data. On that note, I

[19] The only exception being a very small number of contexts where pragmatics favor an abundance reading (see examples (42) & (42)).

firmly believe that future research on bare nouns should expand its scope and encompass other domains of language such as information structure or idiomatic expressions in order to get a better grasp of the relevant phenomena.

Another point to consider is the lack of uniformity in how "(pseudo-) incorporated" structures behave cross- and intra-linguistically. There are a number of theoretical questions that arise in this direction, which future research must address: How permissively/liberally can we implement pseudo-incorporation analyses? Can the relevant phenomena (i.e., bare singulars, weak (in)definites) be accounted for in a conclusive way? These questions have implications for existing semantic theories including the question of whether pseudo-incorporation even exists as a unified phenomenon.

As regards the Greek data, more needs to be done in the broader domain of exclamation/exclamative sentences. With respect to the verb-initial type examined in Part III, it is reserved for future research to investigate how the semantic properties are represented in the syntax. What are the grammatical realizations of $R_{Widening}$ and $R_{Factivity}$? Zooming in on the effect of exclamatives on bare singulars, the most important finding was that number neutrality surfaces in a consistent manner only in exclamatives in Greek. A remaining issue is to see why in assertions bare singulars receive an atomic interpretation? Or, to rephrase, what is it that blocks a plural reading? Are the tests used for number neutrality suitable for the specific language?

Finally, how does the interpretation of bare plural complements compare with that of bare singulars? Do bare plurals receive a 'high quantity' reading in exclamatives or is the gradable reading the only one available? During the experiment, one of the participants shared his intuition that exclamatives with a bare singular denote larger quantities than the ones containing a bare plural. If this is the case, then plurality here arguably stems solely from grammatical number and not from widening processes.

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APPENDIX A[20]

Target and Control items Group 1

Target items V+BSN [+prosody. +VOS] ($_{FOC}$=*focus*) (*in bold*)	**Control items V+BSN** [—prosody, +SVO] (*in bold*)
Mass types	
1. **[Είχε βάλει κύμινο]$_{FOC}$** στο φαγητό η κυρα Σούλα...! 2. Του **['φτιαξε γάλα]$_{FOC}$** εκείνο το βράδυ του μωρού ο Θωμάς, για να κοιμηθεί...! 3. **[Είχε περάσει αυτόφωρο]$_{FOC}$** ο Κώστας στα νιάτα του επειδή οδηγούσε μεθυσμένος...! 4. Εγώ ψώνισα, είμαι εντάξει! **[Έχω αγοράσει αντιηλιακό]$_{FOC}$** για την παραλία εγώ...! 5. **[Είχα δώσει αίμα]$_{FOC}$** εγώ στο στρατό για τιμητική άδεια...!	11. Κι εμείς **είχαμε πιει καφέ** πάνω στο Σηκουάνα. 12. Ο πατέρας **έβαλε καυτερή μουστάρδα** στην χοιρινή. 13. Ο Μαρκος **έβρασε τσάι** για να μαλακώσει ο λαιμός του. 14. Εγώ **έριξα βενζίνη** στο πουκάμισο, για να φύγει ο λεκές. Θέλει, όμως, και καλό τρίψιμο μετά, να ξέρεις. 15. Εγώ της **δάνεισα αλεύρι** τον προηγούμενο μήνα.
Count types	
6. Είναι πολύ καλός γιατρός, να πας! **[Έχει κάνει πλαστική]$_{FOC}$** σ' αυτόν η Μαιρούλα...! 7. **[Είχα φυτέψει λεμονιά]$_{FOC}$** εγώ στα χωράφια του παππού...! 8. **[Έχω φάει κουτσουλιά]$_{FOC}$** εγώ από περιστέρι στον Εθνικό κήπο...! 9. Ο Αντώνης της Ευθυμίας ασχολιόταν με την μπάλα. **[Είχε σπάσει κόκαλο]$_{FOC}$** αυτός στο ποδόσφαιρο...! 10.Μου αρέσει πολύ ο Παύλος! **[Έχω μαδήσει μαργαρίτα]$_{FOC}$** για χάρη του εγώ...!	16. Δεν είναι πολύ καλά στην υγεία της η Ρένια. Αυτή **έχει κάνει εισαγωγή** στο Αιγινήτειο. 17.Εγώ **έχω κάνει συναλλαγή** με Άραβα στο Μοναστηράκι. 18. Η Πολίνα τελείωσε την διατριβή της. Έκτοτε **έχει πάρει βραβείο**. 19. Μα επικοινώνησα με την εταιρεία. **Έχω στείλει μήνυμα** από τη Δευτέρα, αλλά καμία απάντηση! 20. Παρόλο που κάναμε απολύμανση, εγώ **βρήκα κατσαρίδα** στο μπάνιο!

[20] The different colors used across the two appendices (A&B(serve to illustrate the way in which the Latin Square Design was applied (see Sect. 3.1).

APPENDIX B

Target and Control items Group 2

Target items V+BSN [+prosody. +VOS] ($_{FOC}$=*focus*) (*in bold*)	**Control items V+BSN** [—prosody, +SVO] (*in bold*)
Mass types	
1. **[Είχαμε πιει καφέ]$_{FOC}$** πάνω στο Σηκουάνα κι εμείς…! 2. **[Έβαλε καυτερή μουστάρδα]$_{FOC}$** στην χοιρινή ο πατέρας…! 3. **[Έβρασε τσάι]$_{FOC}$** ο Μάρκος για να μαλακώσει ο λαιμός του σήμερα…! 4. **[Έριξα βενζίνη]$_{FOC}$** εγώ στο πουκάμισο, για να φύγει ο λεκές…! Θέλει, όμως, και καλό τρίψιμο μετά, να ξέρεις. 5. Της **[δάνεισα αλέυρι]$_{FOC}$** εγώ τον προηγούμενο μήνα…!	11. Η κυρα Σούλα **έχει βάλει κύμινο** στο φαγητό. 12. Ο Θωμάς **έφτιαξε γάλα** του μωρού, για να κοιμηθεί εκείνο το βράδυ. 13. Ο Κώστας **είχε περάσει αυτόφωρο**, επειδή οδηγούσε μεθυσμένος στα νιάτα του. 14. Ψώνισα, είμαι εντάξει! **Εγώ έχω αγοράσει αντιηλιακό** για την παραλία. 15. Εγώ **είχα δώσει αίμα** για τιμητική άδεια στο στρατό.
Count types	
6. Δεν είναι πολύ καλά στην υγεία της η Ρένια. **[Έχει κάνει εισαγωγή]$_{FOC}$** αυτή στο Αιγινήτειο…! 7. **[Έχω κάνει συναλλαγή]$_{FOC}$** με Άραβα στο Μοναστηράκι εγώ…! 8. Η Πολίνα τελείωσε την διατριβή της. **[Έχει πάρει βραβείο]$_{FOC}$** έκτοτε αυτή…! 9. Μα επικοινώνησα με την εταιρεία. **[Έχω στείλει μήνυμα]$_{FOC}$** από τη Δευτέρα εγώ…! Αλλά καμία απάντηση. 10. **[Βρήκα κατσαρίδα]$_{FOC}$** στο μπάνιο εγώ…! Παρόλο που κάναμε απολύμανση.	16. Δεν είναι πολύ καλά στην υγεία της η Ρένια. **Έχει κάνει εισαγωγή** στο Αιγινήτειο. 17.Εγώ **έχω κάνει συναλλαγή** με Άραβα στο Μοναστηράκι. 18. Η Πολίνα τελείωσε την διατριβή της και **έχει πάρει βραβείο** για την έρευνά της. 19. Ναι, επικοινώνησα με την εταιρεία. **Έχω στείλει μήνυμα** από τη Δευτέρα, αλλά καμία απάντηση! 20. Αν και κάναμε απολύμανση, εγώ **βρήκα κατσαρίδα** στο μπάνιο!

APPENDIX C

Fillers

Notes: 1. *FOC=focus*, 2. ***bold: hints to the answer of the question***

Questionnaire 1	**Questionnaire 2**
Question Type 1: 'Is there talk of fewer than [number] items in the sentence?'	
22. Η Έλσα προσπέρασε **το** μπροστινό **αυτοκίνητο** και **κανά-δυο φορτηγά** και συνέχισε κανονικά την πορεία της. 26. **[Είδες πόσα]FOC** τριγλυκερίδια είχε η γιαγιά στην τελευταία εξέταση; Η προσπάθειά της απέδωσε! 28. Σε μια σακούλα η Έλλη συγκέντρωσε **αρκετά ενθύμια** που είχε ξεχάσει και δύο αυτοκόλλητα. 29. Είδες **κάτι αντίκες** που είχε σήμερα στην αγορά; Και είναι κάτι μαγαζάκια που ούτε τα πιάνει το μάτι σου. 33. Γιατί δεν βάζει **και μερικά αγριολούλουδα** εκτός από τριαντάφυλλα στο στεφάνι; 44. Η γιαγιά μου φτιάχνει **[έναν κολοκυθοκεφτέ]FOC**, να γλείφεις τα δάχτυλά σου! 50. Να ξέρετε ότι ψάχνουμε **[μόνο]FOC τρίγλωσσους** συμμετέχοντες για την έρευνα και κατά προτίμηση **αριστερόχειρες**.	21. Σε μια τσάντα ο Πάτροκλος συγκέντρωσε **αρκετά κοστούμια** που είχε ξεχάσει και **δύο** ζευγάρια κάλτσες. 22. Η Εύα προσπέρασε **την νταλίκα** και **κανα-δυο αυτοκίνητα** και συνέχισε κανονικά την πορεία της. 29. **Είχε πάγκους** με αβοκάντο σήμερα στη λαϊκή! 32. Βάζει πάντα η θεία **και μερικά αμύγδαλα** εκτός από καρύδια στα μελομακάρονα; 40. Η Μάρθα άφησε **το κατσαρολικό [άπλυτο]FOC** και χρειάστηκε να τρίβω μετά! 44. Είδαμε και την Βασίλισσα! Φορούσε **[ένα ρούχο]FOC** που παρέπεμπε στη Βικτωριανή εποχή... Να τρίβεις τα μάτια σου! 45. Η μάνα του Χρήστου φτιάχνει **[έναν μουσακά]FOC**, να γλείφεις τα δάχτυλά σου! 50. Προσέξτε ότι η έρευνα θα αφορά **[αποκλειστικά]FOC το είδος Drapetis bruscellensis**. Αυτή η μύγα εντοπίζεται μέχρι σήμερα **μόνο στο Βέλγιο**!
Question Type 2: 'Is there talk of less than [quantity] of [a substance] in the sentence?'	
23. Καλά ε! **[Τι παγωτό]FOC** έφτιαξε σήμερα ο Φίλιππος; Έχω πάθει σοκ! 32. **[Όλοι]FOC** από το χωριό στην ηλικία του Γιάννη δουλεύουν! **[Αυτός]FOC**... 36. Γιατί ρώτησες **[μόνο]FOC** τον δάσκαλο της χημείας και της γλώσσας για την απόδοση του παιδιού; 40. Η Αγγελική έχυσε **λιγάκι νερό** στο πάτωμα κι η Άλιξ έγινε έξαλλη! 42. **[Τσάμπα]FOC** πήρα γυαλιά ηλίου! 45. **[Είδες βαθμούς]FOC** που έφερε ο Σάκης στο τετράμηνο ε; Για βάλ' του λίγο μυαλό! 51. **Αν** περιμένεις αποτελέσματα απ' τον Χρήστο **σώθηκες**...! 52. **[Ψυχή ζώσα]FOC δεν πάτησε** στο συλλαλητήριο! Δεν ξανάγινε τέτοιο πράγμα!	23. **[Είδες πόση]FOC** χοληστερίνη είχε ο παππούς στην τελευταία εξέταση; Η προσπάθειά του απέδωσε! 27. Καλά ρε συ! **[τι κρέας]FOC** έφτιαξε σήμερα ο Τζακ; Δεν πίστευα στα μάτια μου! 34. Γιατί τηλεφώνησες **[μόνο]FOC** στον καθηγητή της βιολογίας και των Αγγλικών για την απόδοση του παιδιού; 51. **Αν** περιμένεις καλούς βαθμούς από την Παναγιώτα **σώθηκες**...! 52. Τι να σε κάνω **τέτοια ώρα που** θυμήθηκες **να έρθεις**;
Question Type 3: 'Is there talk of less than [time/duration/cost] in the sentence?'	
24. **[Είδες πόσο]FOC** κρατάει ο ήχος του συναγερμού; Δε θα τον ακούσει κανείς άμα μας κλέψουν. 25. Σήμερα η Φανή χρειάστηκε **κάμποσα λεπτά** για να ετοιμαστεί και **καθυστέρησε λίγο** στη δουλειά. 27. Πάλεψε σαν λιοντάρι κι έβγαλε νοκ άουτ τον αντίπαλο **στο πιτς φυτίλι**! 30. Η Μάρα **μόνο ανέβασε πυρετό** το βραδάκι αλλά ευτυχώς της είχε πέσει **μέχρι το επόμενο πρωί**. 31. Η νέα κυβέρνηση είναι **[θέμα χρόνου]FOC** να πέσει με όλες αυτές τις αποτυχίες! 38. Φτιάξαν **[μια τρώγλη]FOC** στα Πατήσια και την νοικιάζουν 300 ευρώ! 41. **[Πόσα]FOC** πλήρωσες; Μια χαρά την έβγαλες! 53. Το πρόγραμμά του είναι τέτοιο που θα βρει χρόνο! 59. **[Πόσο ακόμα]FOC** να περιμένουμε για να δούμε εξέλιξη;	24. Στρώθηκε στο διάβασμα και πέρασε το μάθημα **στο άψε σβήσε!** 25. Έιδες **[πόση ώρα]FOC** κάνουν να φέρουν τους καφέδες; Από αυτούς θα παίρνουμε! 26. Ο Μάνος ξόδεψε **κάμποση ώρα** στην προετοιμασία του και άργησε λίγο να έρθει χθες στο γραφείο. 30. Το παιδί **ανέβασε λίγο πυρετό** το βραδάκι αλλά ευτυχώς κοιμήθηκε αρκετές ώρες. 31. **Τι** τον κρατάνε **ακόμα** τέτοιον διευθυντή; 36. Έχτισαν **[ένα στουντιάκι]FOC** και το νοικιάζουν 400 ευρώ! 48. **[Πόσο]FOC** έκανε το φόρεμα; Πωπω! Τυχερή ήσουν! 59. **[Πόσο ακόμα]FOC** θα κάνουμε για να δούμε άνοδο της οικονομίας; 60. **[Πάλι εδώ]FOC** είσαι εσύ καλέ;

Question Type 4: 'Is there talk of use/consumption of even one [item] / any [substance] in the sentence?'

34. Γιατί μου βάλατε **[καρπούζι]$_{FOC}$**; Ποιος θα το φάει;
35. Τζατζίκι να βάλω; **Αλλά θα φιλήσω την Έλενα μετά!**
39. **[Αποκλείεται]$_{FOC}$ να δοκιμάσω από το ψωμί**! Έχω δυσανεξία στην γλουτένη!
43. Έχεις δει εσύ ομορφότερα παιδιά απ' της Μπριγκίτε; -**Όχι**, είναι όντως κουκλιά!
47. Να βλέπαμε κι εμείς **[ένα ηλιοβασίλεμα]$_{FOC}$** στην Σαντορίνη!
48. **[Δεν έχουμε δοκιμάσει ποτέ]$_{FOC}$** αποξηραμένες παπάγιες! Πώς τις τρώνε ήθελα νά 'ξερα!

35. Φαντάσου **[πώς]$_{FOC}$** θα κάνει ο μικρός όταν δει μπροστά του την Ντίσνεϋλαντ!
37. Κρεμμύδι στη σαλάτα; **Μετά θα φιλήσω τον Πέτρο**!
39. Δυστυχώς **δεν μπορώ να φάω λαχανοντολμάδες**! Είμαι χορτοφάγος!
41. Αχ, να βλέπαμε κι εμείς **[τις πεταλούδες της Ρόδου!]$_{FOC}$**
42. **[Δεν έχουμε δοκιμάσει ποτέ]$_{FOC}$** σαλιγκάρια! Πώς τα τρώνε ήθελα νά 'ξερα!
46. Έχεις δει εσύ πιο άγριο ζώο από την τίγρη της Βεγκάλης στη ζωή σου; -**Όχι**, είναι πράγματι το πιο άγριο ζώο που έχω δει από κοντά!

Question Type 5: Miscellanea

(i) focus on quality/trait

37. Είδες **[τι κόσμημα]$_{FOC}$** φόρεσα σήμερα για το ρεβεγιόν, ε;
46. Η Χρυσάνθη έκανε **[ένα ντύσιμο]$_{FOC}$**... για τα πανηγύρια!
55. Έχουμε να κάνουμε με **[μία ηθοποιό μαρτύριο!]$_{FOC}$**
56. **[Είναι αυτός πολιτικός]$_{FOC}$** τώρα;
58. Το πετυχαίνει πάντα, **αλλά σήμερα** δεν ξέρω τι έγινε με το παστίτσιο της!

(ii) focus on size/volume/extent

21. Πωπω! **[Τι ψαρούκλες]$_{FOC}$** φάγαμε εκείνη την χρονιά στην Άνδρο;
49. Ευτυχώς η πυρκαγιά ξεκίνησε χαμηλά και η πυροσβεστική **έδρασε εγκαίρως**. **Μόνο** κάτι φυτά κάηκαν.

(iii) focus on kind(s)

54. Πρόκειται για **[τον]$_{FOC}$** πολύτιμο λίθο!
57. Στην Αργεντινή δοκιμάσαμε **[το]$_{FOC}$** μπέργκερ!
60. Έχεις καθόλου υπόψιν σου **[τι πέρασε]$_{FOC}$**, για να μεγαλώσει τα παιδιά της;

(i) focus on quality/trait

33. Είδες **[τι φόρεσε]$_{FOC}$** σήμερα για το πάρτι; Απαπαπα!
38. Είδες **[τι κοστούμι]$_{FOC}$** έραψε; Να δω με τι παπούτσι θα το φορέσει;
53. Έγινε μια παρέλαση... **να μην ξέρεις πού να κρυφτείς**!
56. **[Είναι αυτή μαγείρισσα]$_{FOC}$** τώρα;
58. Την πετυχαίνει πάντα, **αλλά σήμερα** δεν ξέρω τι έγινε με την μπεσαμέλ της!

(ii) focus on size/volume/extent

28. Θυμάσαι, Άρη, **[τι μπριζολάρες]$_{FOC}$** φάγαμε εκείνη την χρονιά στην Αράχωβα!
49. Ευτυχώς ο σεισμός **κράτησε μερικά κλάσματα του δευτερολέπτου**. **Μόνο** κάτι ανεπαίσθητες ρωγμές σημειώθηκαν στα κτήρια της περιοχής.

(iii) focus on kind(s)

43. Είδες **[τι φυτό]$_{FOC}$** φύτεψε η Χαρά στη βεράντα!
47. **[Ωραία]$_{FOC}$** που πάει το τυρί στην συνταγή, ε!
54. Δεν είναι πετράδι απλώς... Είναι **[το]$_{FOC}$** πετράδι!
55. Αν πριν μιλούσαμε για μνημεία, τώρα μιλάμε για **[το]$_{FOC}$** μνημείο!
57. Στην Αίγυπτο δοκιμάσαμε **[τον παστουρμά!]$_{FOC}$** Πάθαμε πλάκα!