Chapter 13

Rethinking implicit agents: Syntax cares but not always

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In this paper, I examine implicit control in Greek passives, both verbal passives and a passive-like construction in the nominal domain, namely complex event nominals with an agentive interpretation but a genitive theme DP as the only argument which is realised overtly. The availability of implicit control into temporal gerundival clauses depends on the features of the internal argument and the varying interpretation of the implicit argument. I argue that the implicit agent is only represented syntactically as a covert arbitrary pronoun and is thus able to exert implicit control as long as that pronoun does not trigger relativised minimality effects, blocking promotion of/Agree with the internal argument. The very existence of relativised minimality effects is a purely syntactic argument in favour of the syntactic reality of implicit arguments.

1 Introduction

The syntactic status of implicit arguments, especially in short passives, has been a controversial issue for decades (see Roberts 1985; 1987; Jaeggli 1986; Roeper 1984; Williams 1985; 1987; Bhatt & Pancheva 2006 and references therein). Recent approaches to passives (e.g. Bruening 2014; Schäfer 2012; Alexiadou et al. 2015) seem to converge in assigning no syntactic representation to the implicit agent (IA) and cast doubt on the syntactic nature of most of its alleged effects, reanalysing them as mainly semantic effects. In this light, an unequivocally syntactic diagnostic is needed and in this paper I will discuss such a potential diagnostic, namely the presence/absence of minimality effects in Agree/Move triggered by a demoted/unpronounced external argument. Such effects must be attributed

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to the varying, as it turns out, feature specification of implicit arguments. The implications of these findings are twofold: (i) the syntactic, rather than merely semantic, identity/representation of implicit arguments which can control into non-finite subordinate clauses is reinforced, while at the same time (ii) not all non-active constructions with agentive readings have syntactically realised IAs.

In §2, I summarise the reasons why the arguments proposed so far regarding the syntactic representation of implicit argument can all be recast as purely semantic phenomena, including possibly even implicit control into infinitives. In §3 I outline the argument from Greek gerundival clauses and draw a distinction between manner and absolute/temporal gerunds, of which only the latter really involve syntactic control. In §4 I present the data from verbal and nominal passives, episodic and generic, and a featural relativised minimality-based analysis. In §5, I conclude and present some implications and cross-linguistic considerations that emerge.

2 Questioning the syntactic status of implicit agents

The role, the presence and the position of the IA in short passives is often thought to become evident in two types of paradigms: (i) when a certain bit of structure is licensed, if that bit of structure cannot be licensed in non-agentive constructions, and/or (ii) when the implicit argument itself is part of a referential dependency. On different occasions, all types of evidence have been disputed, either through counterexamples or by suggesting that the mechanism involved does not have to be syntactic. To name four such cases, (a) unpronounced agents have been thought to license secondary predicates (1), (b) passives, but not unaccusatives or middles, license non-finite purpose clauses in which PRO is controlled by the IA (2), (c) the IA can be the antecedent of reflexive pronouns (with arbitrary reference) (3), and (d) internal arguments in passives cannot be coreferential with the implicit external argument (4), a restriction which can be analysed as a principle B or C effect (Kratzer 1994; 2000), depending on the category of the covert element, or as a crossover violation, as in Baker et al. (1989).

(1) The game was played nude.

(2) Bhatt & Pancheva (2006, their grammaticality judgements/diacritics, adapted from Manzini 1983)

  a. The ship was sunk [PRO to collect the insurance].
  b. # The ship sank [PRO to collect the insurance].
  c. * The ship sinks easily [PRO to collect the insurance].

(3) Baker et al. (1989: 228)
Such privileges should be kept to oneself.

(4) The children$_i$ were being washed IMP$_{k/*i}$.

The licensing of secondary predicates in English passives is very limited, in fact restricted to adjectives such as *nude* and *drunk*. Landau (2010) provides more examples of adjectives which often function as secondary predicates but fail to do so when a co-indexation with the IA is intended (5).

(5) a. Landau (2010: 3), adapted from Chomsky (1986: 120–121)
The room was left (*angry).

b. * The issue was decided unassisted.

c. * The game was played shoeless.

Similarly, Williams (1985) dismisses (1) on the grounds that "one may call a game nude if it is played by nude people", therefore *nude* might in fact be (derivatively) predicated of *the game* (or the playing of the game). If one "modif[ies] the adjunct predicate suitably to make such a predication unreasonable, the sentence becomes unacceptable" (Bhatt & Pancheva 2006: 16). However, while these observations do suggest that English passives do not license secondary predicates predicated of the unpronounced agent, Alexiadou et al. (2015) suggest that such secondary predicates are possible in other languages, a necessary condition being that they are not required to Agree with their subject in phi-features. For instance, the German counterpart of (5a) is grammatical. Pitteroff & Schäfer (2017) propose that the semantics of depictives in Pylkkänen (2008), combined with Bruening's (2014) theory of passives, can account for this possibility.

The apparent binding effects illustrated in (3) and (4) have also been claimed to be analysable without resorting to binding-theoretic syntactic explanations. According to Alexiadou et al. (2015: 219), examples such as (3) could "find […] a different explanation as they could arguably involve a logophor instead of an ordinary reflexive pronoun". They further argue that anaphors bound by *by*-phrases, e.g. in impersonal passives in German, are default, invariable 3rd person forms, even when the antecedent is first person, unlike cases involving real syntactic binding, which requires person/number agreement between the anaphor and its antecedent (ibid.).[1] As for the disjointness effect in (4), this could be made to simply follow directly from the semantics of the passive Voice head. Spathas et

[1]As an anonymous reviewer points out, "a reflexivity based account also needs no syntactically realised IA to predict the facts".

al. (2015), partly following Bruening (2014), assume the *Pass* is merged with a Spec-less VoiceP and imposes existential quantification over the open argument of VoiceP, while they treat the disjointness as a presupposition in the denotation of *Pass*, not to be found in other types of non-active/middle Voice heads attested cross-linguistically (6).

(6) $[\![\text{Pass}]\!] = \lambda f_{es,t}\ \lambda e \exists x.f(x)(e)$
Presupposition: $\forall f_{es,t}.f(x)(e) \rightarrow f \neq \text{theme}$

Control into infinitival purpose clauses is not uncontroversial either. Williams (1985) proposed that in examples such as (2) it is the whole matrix clause that controls the subject of the infinitival adjunct, i.e. the sinking of the boat causes the collection of the insurance and can even be referred to by the subject in sentences like *That will collect/earn you some insurance.* (Williams 1985, via Bhatt & Pancheva 2006: 573). When such a semantic relationship between the event in the matrix clause the one in the adjunct cannot be established, then control fails (7); likewise, similar S-control phenomena can be obtained even with unaccusative predicates, given appropriate additional context (8), or even with events disallowing the participation of an agent (9).

(7) * The boat was sunk [PRO to become a hero].

(8) The boat sank in order to impress the queen and move her to murder her husband by the end of Act III.

(9) Williams (1985)
Grass is green [to promote photosynthesis].

Nonetheless, this kind of argumentation does not easily carry over to implicit control into infinitival complements of (passivised) control predicates such as *decide*/*agree*/*promise* (10).

(10) Landau (2010: 4)
It was decided [PRO to leave].

Among such predicates, ditransitives like *promise* are particularly interesting in that they disallow implicit control in goal passives (11a), as per Visser's (1973) generalization, while the corresponding impersonal passives are licit in e.g. Norwegian, as van Urk (2013) notes, but also in English (11b).

(11) Pitteroff & Schäfer (2017)
a. * Maggie was e_i promised [PRO_i to do the shopping].
b. It was e_i promised [PRO_i to do the shopping].

In the light of contrasts like this, van Urk (2013) revises Visser's generalisation, suggesting that implicit control is only licit if no overt DP establishes an Agree relation with T, assuming that the expletive in impersonal passives does not enter such a relationship. Such a proposal is indeed akin to the idea pursued in this paper that the IA, if realised syntactically, should lead to minimality effects when intervening between T and an overtly agreeing DP. Van Urk (2013) does not quite analyse the ungrammaticality of (11a) as a minimality violation, but proposes that implicit control is a case of subject control, which is always mediated by agreement of T with both the controller and PRO. Thus, if T overtly agrees with an argument which is not the controller, as in (11a), control fails.

However, recall Landau's (2015) generalisation that only attitude predicates allow implicit control. Landau suggests that control with attitude predicates involves what he calls *logophoric* control, while control with non-attitude predicates involves *predicative* control, therefore only logophoric control can be exerted by an implicit controller. Based on Landau's (2015) idea that logophoric control does not directly involve predication between the controller and a clausal constituent, which would require syntactic representation of the controller, then perhaps implicit control with attitude predicates is no argument for the syntactic realisation of the IA.

Furthermore, Pitteroff & Schäfer (2017) dispute Landau's generalisation and argue that there is a split between languages that disallow implicit control with non-attitude predicates and languages that do. Interestingly, they attribute this split to the availability and the nature of "associative" expletive pronouns that can satisfy the EPP. Thus, given that their explanation relies on the associative pronoun functioning as the subject and valuing T's phi-features, van Urk's revision of Visser's generalization has to "find a different explanation from the one […] where T in implicit control structures is valued by a syntactically projected (weak) implicit argument" (Pitteroff & Schäfer 2017: 38–39). Casting doubt on the IA's participation in Agree relationships also undermines the hypothesis that it has to be syntactically realised.

In the following sections, I will argue that IAs controlling into non-finite subordinate clauses may not themselves be able to enter any Agree relationships, however they can variably act as defective or transparent interveners in Agree relationships between a functional head and the overt DP that head licenses, depending on the feature specification of the functional head but also the covert pronominal element realising the demoted argument.

3 Towards a new diagnostic: Control into gerundival adverbial clauses in Greek

In the following sections, I put forward an argument that implicit control into absolute/temporal gerundival clauses is subject to syntactic restrictions, namely (featural) relativised minimality. In relation to the discussion above this means that, even if we cannot be sure about implicit control into infinitives, implicit control into absolute/temporal gerundival clauses has to be established in narrow syntax. The core tenet of the argument is that implicit control sometimes is successful and sometimes is not. All cases under discussion involve an A-dependency across the presumed position of an implicit argument. Those A-dependencies are obligatory: (a) promotion (to subject) of the internal argument in verbal passives, episodic and generic; (b) promotion (to a unique Case position) of the internal argument in passive nominals. Successful implicit control is in principle compatible with two explanations: (i) either the implicit argument is not syntactically represented and implicit control is semantic anyway; or (ii) implicit control is syntactic and therefore the implicit argument is indeed projected syntactically, but its features are such that they cannot give rise to minimality effects in Agree/Move dependencies across the implicit argument. The fact that implicit control is not successful in some other cases points towards the latter explanation: in such Agree/Move dependencies the features of the probe are such that the potential intervention of an implicit argument would trigger a minimality violation.

Therefore, the existence of such A-dependencies and the absence of implicit control in the latter cases is incompatible with the idea that implicit control is merely semantic, if "semantic" is to be understood as "possible in the absence of syntactic representation". Syntactic representation of the implicit argument is indeed needed for implicit control and the failure of implicit control is simply due to the absence of a syntactically represented implicit argument in such cases. The fact that certain non-overt thematic relationships are achieved through syntactically projected covert pronominals does not preclude the satisfaction of certain relationships. In other words, we cannot categorically rule out as a possibility the existence of constructions in which the relevant thematic entailments follow from the denotation of the functional (Voice) heads involved, as in Spathas et al. (2015). Anticipating somewhat the discussion in later sections, it turns out that the implicit agent is not projected syntactically in Greek episodic verbal passives. In such cases, the agentive interpretation, i.e. the existentially-bound reading, has to come from the semantics of the Voice head, as in (6′) below (p. 308).

Before moving to the argument itself, a crucial distinction needs to be drawn first, regarding the control properties of gerunds in Greek, a rather murky area. I will adopt and adapt a broad bipartite classification of Greek gerunds (see e.g. Tsimpli 2000), which recognises absolute/temporal gerunds as one category and manner gerunds as the other relevant type. The former can usually be rephrased as an adverbial clause introduced by (the equivalent(s) of) 'while', whereas the latter can be rephrased as adjuncts introduced by phrases such as 'by means/virtue of'. With the exception of gerunds with overt nominative subjects (see Tzartzanos 1989 [1946]; Kotzoglou 2016), absolute gerunds license null subjects which are obligatorily controlled by some argument of the matrix clause, usually the subject but not necessarily. According to Kotzoglou (2016), "[r]eferential null subjects that are totally thematically unrelated to the event denoted by the main clause predicate are hardly licit as subjects of gerunds". In fact, absolute gerunds can be controlled by any core or non-core argument of the matrix predicate. In (12), the null subject of the gerund can be co-indexed with either the null subject of the matrix clause or the (cliticised) object. In (13), it is co-indexed with the indirect object of the matrix, and in (14) it is shown that it can be co-indexed with object experiencers of any type, i.e. both dative and accusative experiencers are licit antecedents. Cliticisation of non-subject antecedents may be preferred or even required but I will put this aside for now, as well as the issue of gerund placement (but see Haidou & Sitaridou 2002).

(12) Greek
pro$_{i}$ ton$_{j}$ pirovolisan, e$_{i/(?)j}$ vjenondas apo to peripoliko
him shot.3PL getting-out of the patrol car
'They shot him, as he was / they were getting off the police car.'

(13) Greek
e$_{i}$ telionondas ti thitia tu, *pro* tu$_{i}$ edhosan vravio ja tis ipiresies
ending the term his him.DAT gave.3PL prize for the services
tu
his
'As he was ending his term, they gave him a prize in recognition of his work.'

(14) Greek (adapted from Anagnostopoulou 1999)
e$_{i}$ akugondas afta, archise na mi mu$_{i}$ aresi / na me$_{i}$ enochli afti i
hearing these started to not me appeal to me annoy this the
istoria
story
'As I was hearing those things, that story started to bother/annoy me.'

Crucially, there is clear evidence that nothing prevents null subjects of such gerunds from taking IAs as their antecedents. In (15), the subject of the adjunct clause is obligatorily coreferential with the understood experiencer of the evaluative adjective of the matrix clause.

(15) Greek (adapted from Kotzoglou 2016)
e_i grafondas to vivlio, itan [enoxlitiko EXP_i] pu i aftoptes martires
writing the book was annoying that the eye-witnesses
dhen milusan ja ta mavra chronia tis hundas
not talked about the black years of-the dictatorship
'While writing the book, it was annoying that the eye-witnesses did not talk about the dark period of the dictatorship.'

These examples suggest that absolute gerunds can indeed be controlled by any type of argument, regardless of its theta-role, and putting aside irrelevant considerations regarding the feature makeup/size of overt antecedents. If this is so, then the fact that existentially bound understood agents of episodic verbal passives, as well as overt *by*-phrases, cannot be the antecedent of gerundival subjects is a noteworthy exception (16).

(16) Greek
pro$_i$ pirovolithike (apo tus astinomikus$_k$/ARB$_m$), $e_{i/*k/*m}$ vjenondas
was-shot by the policemen getting-out
apo to peripoliko.
from the patrol car
'He was shot as he was getting out of the police car''

Kotzoglou (2016) provides a number of examples which appear to threaten this neat picture, as they feature understood subjects of gerunds of all types controlled by understood participants of the matrix event. His conclusion then is that "felicitous null subjects of Greek gerunds might in fact be controlled by an (implicit) argument of the matrix middle [(17)], passive [(18), (19)], ergative [(20)], or psych predicate [(15)]".

(17) Greek
To portokali katharizete kratondas macheri ke pirouni.
the orange is-cleaned/cut holding knife and fork
'Oranges peel / are peeled using knife and fork.'

(18) Greek
Kaliptondas tis thesis ergasias me ikano prosopiko afksanete
covering the vacancies with competent staff is-increased
i paragogikotita.
the productivity
'Productivity is increased by covering the vacancies with competent staff.'

(19) Greek
Epichirithike perigrafi tis glosas prosegizondas tin sinolika
was-attempted description of-the language approaching it holistically
os fenomeno.
as phenomenon
'A description of the language as a whole was attempted.'

(20) Greek
I porta tu banju aniji jirnondas afto to klidi.
the door of-the bathroom opens turning this the key
'The door to the bathroom opens by turning this key.'

Crucially, with the exception of the implicit experiencer in (15), the examples involving "implicit" external arguments are all examples of manner gerunds. So, we either have to assume that there is some level of representation in which even unaccusatives take implicit agent arguments or to draw a distinction between manner and temporal/absolute gerunds and show that apparent control into clauses of the former type is not a syntactic dependency.

The first argument that manner gerunds may not allow syntactic control comes from partial control. Landau (2010) argues in detail that partial control cannot be reduced to analyses compliant with "the locality of lexical relations" (Landau 2010: 361), hence controllers in partial control constructions have to be syntactically realised and control dependencies that also allow for partial control have to be syntactic. As shown below, if possible at all, partial/split control is marginally possible with absolute gerunds (21) and (22), but completely ruled out with manner gerunds (23) and (24).

(21) Greek
?Proigumenos, (vjenondas$_{j+m}$ apo to ksenodochio) o Janis$_j$ tis$_m$
earlier getting-out from the hotel the John her.CL
kratise (tis Marias$_m$) tin porta (vjenondas$_{j+m}$ apo to ksenodochio).
held the Mary.DAT the door getting-out from the hotel
'Earlier, when leaving the hotel, John held the door for Mary.'

(22) Greek
(Ksekinondas$_{j+m}$ tin karjera tus$_{j+m}$ os glosoloji), o Janis$_j$ sinergastike
starting the career their as linguists the John collaborated
poli me ti Maria$_m$ (?ksekinondas$_{j+m}$ tin karjera tus$_{j+m}$ os glosoloji).
a-lot with the Mary starting the career their as linguists
'When starting their careers as linguists, John collaborated with Mary a lot.'

(23) Greek
O Janis$_j$ ke i Maria$_m$ sinergastikan sto pirama isoropias,
the John and the Mary collaborated at-the experiment of-balance
kratondas$_{j+m}$ tis dio akres tu skinju.
holding the two ends of-the rope
'John and Mary collaborated for the balance experiment, holding the two ends of the rope.'

(24) Greek
O Janis$_j$ sinergastike me ti Maria$_m$ sto pirama isoropias,
the John collaborated with the Mary at-the experiment of-balance
kratondas$_{j+m}$ tis dio akres tu skinju.
holding the two ends of-the rope
'John collaborated with Mary for the balance experiment, by holding the two ends of the rope.'

Second, if we take the temporal/manner distinction into consideration, then it turns out that the null subject of an absolute gerund can only pick out as its antecedent arguments which are independently known to be syntactic objects. Tsimpli (2000) observes that manner gerunds are obligatorily subject-oriented and, despite the exceptions noted above (17) and (20) that Kotzoglou observes, Tsimpli's observation is still correct in that manner gerunds can never be controlled by (overt) non-subjects (25).

(25) Greek
pro$_i$ ton$_k$ enochlusan akugondas$_{i/*k}$ dinata musiki, tin opia
him.CL bothered.3PL listening/hearing loud music the which
evazan mes sta mesanixta
put.3PL during the (mid)night
'They annoyed him, listening to music at top volume in the middle of the night.'

This restriction brings manner gerunds closer to subject-oriented manner adverbials rather than real clausal elements. Similarly to manner gerunds, and unlike absolute ones, manner adverbials are never "controlled" by non-EA subjects, their controller can only be an external argument, either overt or understood, and they do not allow this control to be partial. Thus, in e.g. (26), there must be complete and not partial overlap between the culprit(s) and the person(s) who wanted the event to take place.

(26) Ta stichia parapiithikan ithelimena
the evidence was forged purposefully / willfully

Therefore, manner gerunds are just EA-oriented adverbials, potentially taking overt internal arguments, i.e. with some *v*P structure, rather than elements with clausal structure. Compared to absolute gerunds, they are known to be truncated (cf. Tsimpli 2000), lacking an inflectional layer (hence they cannot be negated). They probably lack Voice too, or whatever licenses external arguments syntactically. We can assume that they are interpreted as predicated of some external argument at a post-syntactic level. If an external argument is not provided by the syntax/LF, then it must be inferred/provided by the context, as in the case of anticausatives (18, 20). To conclude this section, there is enough evidence that control into manner gerundival clauses does not have to be syntactic, which leaves us with absolute gerunds as the only construction in which control may indeed be established syntactically.

4 Different types of IA in different types of passive

The data from control into absolute/temporal gerunds seem to suggest that a crucial variable is the interpretation of the implicit pronominal element. Covert pronominal elements of the sort discussed here have arbitrary reference and it appears that Cinque's (1988) broad distinction between two types of arbitrary pronominal elements is reflected in the facts under discussion. Thus, the success of implicit control often depends on the extent to which the interpretation of the presumed implicit argument falls under each of the two interpretations that Cinque distinguishes: (i) *quasi-existential ARB*, which is compatible with the existence of a unique referent (cf. the interpretation of *they* in *They have called for you; I think it was your brother*) or (ii) *quasi-universal ARB*, the interpretation of generic arbitrary arguments that necessarily includes more than one individual, potentially every relevant individual (cf. the interpretation of *you* in *When you eat in Spain, you eat well*).

Existentially bound agents in (short) episodic verbal passives have the properties of Cinque's (1988) "quasi-existential" arbitrary pronominal elements (ARB): (i) they are compatible with specific time reference (27a), (ii) they are compatible with the existence of a single individual satisfying the description (27b), (iii) they are incompatible (on the existential interpretation) with generic time reference, (iv) they are restricted to external argument roles, and (v) they are necessarily [+human] (27c).

(27) Adapted from Roberts (2014)
   a. This question was answered yesterday afternoon.
   b. This question was answered rudely (I think it was Fred).
   c. Strangers were barked at for fun.

These properties are all present in the agentive readings of non-active constructions of transitive predicates in Greek. But, as shown in (16) above, such understood agents fail to control into absolute gerunds. To make sure that they are not syntactically realised in such constructions and that there is no mysterious/independent ban on control by this specific type of implicit argument in Greek, it would suffice to find some other construction with demoted/unpronounced agents that does allow them to control into a non-finite clause. Indeed, event nominalizations with objects occupying a (unique) functional genitive position can license absolute gerunds whose null subject is successfully controlled by the understood agent (28).

(28) Greek
   Etia tu xtesinu distiximatos itan … i katanalosi megalon
   cause of-the yesterday's car accident was the consumption of-large
   posotiton alkool [PRO odigondas]
   amounts of-alcohol driving
   'The cause of yesterday's car accident was the consumption of large amounts of alcohol while driving.'

Alexiadou et al. (2015), who concede that implicit agents of nominals need to be syntactically projected, note that "nominals differ from [episodic] passives in that the implicit argument cannot be existentially bound" (Alexiadou et al. 2015: 238). IAs in nominals seem to behave more like principle B pronouns, they can be bound by a referring expression outside their binding domain or they can serve as variables bound by a quantifier (29).

(29) Bruening (2014), via Alexiadou et al. (2015: 238)
Every journalist$_i$ hopes that a conversation IA$_i$ with the president will be forthcoming.

Notwithstanding Alexiadou et al.'s observation regarding binding, we can establish a certain striking similarity between quasi-existential ARB in episodic verbal passives and syntactically projected null pronominal IAs in Greek nominals: they are both restricted to external theta-roles. As we show in (30), the internal argument of an unaccusative predicate is not a licit controller.

(30) Greek
Pliroforithika enan thanato [PRO diefthinontas orchistra]
learnt / heard-of.1SG a death conducting orchestra
'I heard of a death while conducting the orchestra.' (PRO=hearer/*the deceased)

Crucially, non-agents can control only as long as the interpretation is generic rather than episodic (31).

(31) Greek
O thanatos [PRO diefthinontas (tin) orchistra] … ine to kalytero telos
the death conducting the orchestra is the best end
ja enan / ton maestro
for a the conductor
'The best death for a conductor is while conducting the orchestra.'

In fact, in generic nominals, PRO can be controlled by agent and non-agent implicit arguments alike.

(32) Greek
To prosektiko klidhoma tis portas PRO vjenondas apo to ktirio
the careful locking of-the door getting-out from the building
ine aparetito.
is necessary
'The careful locking of the door/carefully locking the door when getting out of the building is necessary.'

The contrast between generic and episodic nominals points to the different categorial/featural status of implicit arguments in the former. Arguably, the controller in (31) is an arbitrary, non-referential element, and more specifically a

quasi-universal ARB, following Cinque's (1988) dichotomy. Such ARB elements are known to be (i) compatible with all theta-roles/not restricted to external arguments, (ii) compatible with generic time reference, and (iii) incompatible with specific time reference. All of these properties are manifested in (31). Roberts (2014) derives the thematic restrictions (and the absence thereof) on arbitrary arguments from potential intervention effects between ARB and its licenser. Specifically, he proposes that quasi-existential ARB elements (e.g. IAs in episodic verbal passives) are licensed by T, while quasi-universal ARB is licensed by a generic operator (GEN) in C. Thus, GEN can license the closest ARB in its domain, i.e. anything that ends up in subject position, Spec-TP, whereas T can only license elements in Spec-*v*P (33a); according to Roberts, there can be no dependency between T and ARB if the latter is (i) in an internal argument position of the passive, as the external argument in Spec-*v*P would intervene (33b); (ii) in an internal argument position of a non-stative unaccusative, as an Event argument would intervene (33c), or (iii) in an internal argument position of a stative unaccusative, as a Loc argument would intervene (33d).

(33) Roberts (2014: 5)

a. T_i [$_{vP}$ arb_i [VP …

b. * T_i [$_{vP}$ EA [$_{VP}$ … arb_i …

c. * T_i … Ev … [$_{VP}$ … arb_i …

d. * T_i … Loc … [$_{VP}$ … arb_i …

That (31) is no exception to Roberts' licensing principle is shown by the fact that such nominals, containing an ARB internal argument, would be illicit in object position. Such a dependency between GEN in C and ARB within DP would violate the phase impenetrability condition (which version of the PIC is operative here, i.e. Chomsky's (2000) "strong" or his (2001) "weak" formulation depends on whether DP/*n*P is a phase). In (34), PRO cannot be interpreted as bound by a quasi-universal ARB; in fact, in this context the gerund cannot be part of the object nominal at all and PRO can only be bound by the matrix subject.

(34) Greek

O Mitropulos$_m$ fovotan / ksorkize / imnuse to thanato (*ARB$_i$)
the Mitropulos feared exorcised extolled the death
PRO$_{m/*i}$ diefhtynondas tin orchestra
conducting the orchestra

'Mitropulos feared / exorcised / extolled death when conducting the orchestra.'

The fact that non-generic IAs in nominals are subject to the same restriction as quasi-existential IAs of episodic verbal passives suggests that a similar licensing mechanism is at play. I propose that the relevant licensing head is the lowest functional projection c-commanding the agent in event nominals, arguably *n* (35). Then the same intervention effects arising in the possible verbal configurations in (33) will have to arise within nominals. Also, if T as a licenser is responsible for some of the interpretive effects of the IA in episodic verbal passives (e.g. existential binding), the absence of T in the DP also explains the lack of such readings for IAs in passive nominals.

(35) $[_{n\text{P}}$ (R-argument) n $[_{v\text{P}}$ EA v ...]]

To sum up our findings so far, in Greek nominals both generic and non-generic IAs can be licensed and both can control into temporal gerunds. On the contrary, in episodic verbal passives, existentially bound IAs cannot be controllers of null subjects in temporal gerunds. We have not explored the status of generic/quasi-universal IAs in verbal passives yet. Interestingly, generic verbal passives are *not* incompatible with an IA controlling into absolute gerunds. Such IA arbitrary elements are clearly quasi-universal:

(36) Greek
(?Didaskontas), I antidrasis ton mathiton prepi na lamvanonde
teaching the reactions of-the students must be-taken
ipopsi (?didaskontas)
into-account teaching
'When teaching, the students' reactions must be taken into account'

Even more interestingly, notwithstanding the ban on existentially bound IA controllers, episodic sentences like (37) below the following, are also possible.

(37) Greek
Afti i fotografia travixtike [PRO fevgontas apo tin poli]
this the picture was-taken leaving from the town
'This picture was taken when leaving the town.'

For most speakers, if there is an obligatory control relation there, then the unpronounced arguments that get co-indexed both refer to an unspecified set of people *including the speaker*. Even (16) paraphrased below as (38) can have a similar reading for some speakers, if actually uttered by the policeman who shot the suspect or someone who was with him:

(38) Greek
%O ipoptos pirovolithike [PRO pijenondas na ton silavume]
the suspect was-shot going to him.CL arrest.1PL
'The suspect was shot as we were approaching him to arrest him.'

This surprising effect is reminiscent of so-called non-argumental impersonal *si* in Italian. Non-argumental *si*, being compatible with non-external theta-roles is necessarily quasi-universal (Cinque 1988). However, in the context of specific temporal reference, a paradoxical, first plural, interpretation arises (39b).

(39) Italian
a. Oggi, a Beirut, si nasce senza assistenza medica.
'Today, in Beirut, one/babies can be born with no medical assistance.'
b. # Oggi, a Beirut, si è nati senza assistenza medica.
'Today, in Beirut, we were born with no medical assistance.'

So, this 1PL interpretation arises when the arbitrary argument typically receives a quasi-universal interpretation but this is blocked by factors such as specific time reference (see Cinque 1988 and Roberts 2014 for explanations of this phenomenon). Thus, combining our two variables, i.e. verbal vs nominal passive and generic vs. non-generic, we get the four-way typology illustrated in Table 13.1.

Table 13.1: Control into absolute gerunds

ARB	Verbal passives	"Passive" event nominals
Quasi-existential/non-generic	*	Yes
Quasi-universal	Yes	Yes

Nevertheless, looking more closely at the properties of genitive/possessivised themes in Greek, it turns out that they are not always possible in the presence of an IA. Implicit control is licit when the genitivised theme is a full lexical DP (40a, 41a), but this kind of co-indexation is impossible when the theme is realised by a clitic attaching to an adjective within the DP, typically the leftmost one (40b, 41b).[2]

[2] An anonymous reviewer takes issue with the judgements reported in this section regarding control from the implicit argument of nominals into such absolute gerunds, which she finds ungrammatical (regardless of the realisation of the internal argument of the nominal, I suppose). Apart from myself, 6 other native speakers were consulted, who all agree with the judgements reported here.

(40) Greek

a. I sixni xrisi narkotikon IA_i tote PRO_i telionondas ti diatrivi
the frequent use drugs.GEN then writing-up the thesis
'The frequent use of drugs back then, when writing up the thesis …'

b. * I sixni tus xrisi IA_i tote PRO_i telionondas ti diatrivi
the frequent 3PL.CL.GEN use then writing-up the thesis
'Their frequent use back then, when writing up the thesis …'

(41) Greek

a. To aprosekto klisimo tis $portas_p$ IA_i, PRO_i vjenondas apo to
the mindless shutting of-the door leaving from the
spiti, epetrepse stus kleftes na bun anenoxliti
house allowed to-the thieves to enter easily
'The mindless shutting (e.g. without locking) of the door, when leaving the house, let the thieves enter easily.'

b. * to prosektiko / dhiko tis_p klisimo IA_i, PRO_i vjenondas apo to
the careful own her.CL shutting leaving from the
spiti kratise tus kleftes makria
house kept the thieves away
'Its careful / own locking when leaving the house prevented the thieves from entering.'

On the other hand, in generic contexts, implicit control by the implicit (quasi-arbitrary) agent is possible in the presence of both genitive DP themes (see 32) and themes realised as genitive clitics:

(42) Greek
To prosektiko tis klidhoma IA_i PRO_i vjenondas apo to ktirio ine
the careful its locking getting-out from the building is
aparetito.
necessary
'Its careful locking (=of the door) is necessary when getting out of the building.'

In Greek process nominals, only one argument can be realised as a genitive DP, unlike e.g. in German or Latin. This suggests that there is a unique functional projection licensing such genitives (see Alexiadou et al. 2007 and references therein) and therefore a unique probe for DPs above the thematic domain. Attraction of a

genitive argument to the relevant functional projection is followed by movement of the head noun (or *n*P) immediately above the genitive.

(43) [… *n* $F_{GEN}{}^{0}$ [$_{nP}$ ~~*n*~~ [ext.argument [int.argument … ~~N~~ …]]]]

Apart from the genitive realisation of one of the arguments, Greek also allows for the realisation of adnominal arguments as possessive clitics. In fact, a (unique) genitive DP, which realises one of the arguments, can co-occur with a possessive clitic, realising an additional argument. Such co-occurrence obligatorily obeys Superiority, such that the higher argument is realised as a clitic, while the genitive DP necessarily realises a lower, internal argument (44).

(44) Greek
I proti mu perigrafi tis Marias
the first my description the.GEN Mary.GEN
'my first description of Mary / *Mary's first description of me'

When two overt arguments co-occur, the clitic is realised higher than the head noun. Therefore, the probe for possessive clitics is higher than the landing site of the moved head noun (45).

(45) [… $F_{POSSCL}{}^{0}$ [*n* $F_{GEN}{}^{0}$ [$_{nP}$ ~~*n*~~ [ext.argument [int.argument … ~~N~~ …]]]]]

Movement of an internal argument genitive DP to F_{GEN} across the external thematic position (40a, 41a) seems to be fine, but movement of a clitic (40b, 41b) is out. This indicates that the intervention of the implicit agent gives rise to minimality effects relativised to the features of the probe. F_{GEN} can attract full lexical DPs, so its probe consists of both phi-features, i.e. number and gender, and some additional feature, probably [+D] or [+NP]. $F_{POSSCL}{}^{0}$ instead, which can at most attract clitics, comprises no more than a bundle of phi-features. Following featural relativised minimality (Starke 2001; Rizzi 2001; 2013), summarised in (46) below, the features of the IA must be such that they make it an offending intervener when the probe is $F_{POSSCL}{}^{0}$, but not when the probe is $F_{GEN}{}^{0}$ (47). In other words, the feature makeup of a non-generic IA is that of a (possessive) pronominal clitic.

(46) Featural relativised minimality:
A local relation cannot hold between X and Y when Z intervenes, and Z is somehow a potential candidate for the local relation. The features of X should not be a subset of the features of Z.

	X …	Z …	Y	
a.	+A …	+A …	⟨+A⟩	*
b.	+A+B …	+A …	⟨+A+B⟩	ok

(47)	$F_{POSSCL}{}^{0}$	$F_{GEN}{}^{0}$	ext.arg.	int.arg.	
	+φ		$IA_{+\varphi}$	$clitic_{+\varphi}$	*
	+φ			$clitic_{+\varphi}$	ok
		+φ, +D/+NP	$IA_{+\varphi}$	$DP_{+\varphi,\ +NP}$	ok

Turning to verbal passives, it is necessary to explain the contrast between quasi-existential and quasi-universal arbitrary IAs. The feature makeup of existentially bound IAs is arguably the same as that of non-generic IAs in nominal passives, namely a simple bundle of phi-features. This is in line with the fact that Greek is a null subject language and, thus, its T should be able to attract non-lexical/weak pronominal elements such as *pro*. It appears then that quasi-existential ARB fully matches T's uninterpretable features,[3] thus blocking further probing downwards (48a)[4]. Quasi-universal probes on the other hand must have a reduced/defective feature makeup (48b). Indeed, unlike episodic passives, generic passives do not allow the IA to be co-indexed with a *by*-phrase. Also ARB in such (generic) passives can marginally bind an anaphor, but that has to be (generic) second person singular (which is also its default person when realised overtly) or first person plural (49a), as opposed to non-generic IAs which are compatible with any [Person] value (49b). Thus, it can be argued that quasi-universal ARB lacks an interpretable/lexically valued person feature (and possible also gender), as its person is valued by default. This makes its feature specification a proper subset of T's probing features and its intervention is not enough to block T from probing and matching the internal argument.

(48)		T	Spec*v*P	Object	
	a.	+φ	qu-∃ $IA_{+\varphi}$	$pro_{+\varphi}$/$DP_{+\varphi,\ +D,\ +NP}$	*
	b.	+φ	qu-∀ $IA_{+number,uPerson}$	$pro_{+\varphi}$/$DP_{+\varphi,\ +D,\ +NP}$	ok

(49) Greek

a. ? i antidrasis ton allon prepi na lamvanonde ipopsi
the reactions of-the others must to be-taken into-account
milondas ja ton eafto su / mas / *tu / *tus
talking about the self your our his their
'The reactions of the others must be taken into consideration when talking about yourself/ourselves/himself/themselves.'

[3] In fact I am assuming that the only kind of goal that matches T's features is *pro*. Thus, in line with Alexiadou & Anagnostopoulou (1998), it follows that any overt DP subjects are either CLLDed topics (when preverbal), with *pro* serving as a clitic in the relevant sense, or the result of CLRD/clitic doubling (when postverbal).

[4] Recall that, unlike other null subject languages (e.g. Italian/Spanish), Modern Greek lacks participial passives, which may provide a mechanism of circumventing the intervention of the IA, i.e. Collins's (2005) "smuggling".

b. i efarmoji tis therapias $IA_{i/j/k/l/m/n/p}$ ston eafto mu_i /
the application of-the therapy to-the self my
su_j / tis_k / tu_l / mas_m / sas_n / tus_p itan terastio lathos.
your her his our your.PL their was huge mistake
'Applying the therapy to myself / yourself / herself / himself / ourselves / yourselves / themselves was a huge mistake.'

To conclude this section, when manipulating a number of variables concerning the behaviour or implicit arguments intervening in an Agree relationship, namely their generic/non-generic interpretation and the nature of the probe, it turns out that IAs do cause relativised minimality effects, thus providing a clear argument that they are syntactically projected whenever Agree goes through. Table 13.2 presents all the conceivable combinations of the different states of the variables discussed in this section and their relativized minimality-based analysis.

Table 13.2: Possible and impossible combinations of probes and covert ARB pronouns

Passive nominals				
F_{POSSCL}	F_{Gen}	External argument	Int. argument	
+φ		non-generic, +φ	$clitic_{+\varphi}$	*
+φ		generic/qu-∀, iNumber, 0Person	$clitic_{+\varphi}$	OK
+φ		not projected	$clitic_{+\varphi}$	OK
	+φ, +D	non-generic, +φ	$DP_{+\varphi,+D}$	OK
	+φ, +D	generic/qu-∀, iNumber, 0Person	$DP_{+\varphi,+D}$	OK
	+φ, +D	not projected	$DP_{+\varphi,+D}$	OK
Verbal passives				
T		External argument	Int. argument	
+φ		Qu-∃, +φ	$pro_{+\varphi}$	*
+φ		Qu-∀, iNumber, 0Person	$pro_{+\varphi}$	OK
+φ		not projected	$pro_{+\varphi}$	OK

5 Conclusions, implications for the theory of passives, open questions

In this paper, a new argument was put forward for the syntactic realisation of some implicit agents, based on relativised minimality effects in Agree which can only be explained if an IA is indeed projected. Given the patterns observed, IAs that control into non-finite (adjunct) clauses are real syntactic objects, and at the same time constructions with passive readings may in fact not contain syntactically represented IAs, given that their presence would cause an irreparable minimality violation and block licensing of the promoted internal argument.

The latter scenario is exactly what happens with existentially bound agents in Greek short episodic verbal passives. This has certain implications for the theory of passives. A truly passive, i.e. agentive, interpretation is possible even when the language lacks a dedicated passive Voice. Generalising a bit, it can be argued that demoted theta-roles must be represented if the grammar allows them to be represented. For instance, there can be no agentive reading for a construction lacking both an external argument subject and passive morphology, if passive morphology is independently available in the language. However, if the grammar does not provide a syntactic slot for an understood argument, another related operation/construction (e.g. the homophonous middle/reflexive in Greek) is employed as some sort of last resort and the demoted theta-role can, in fact has, to be inferred. Greek does not lack agentive readings, as shown by the felicitous use of agent-oriented adverbials (50) – which is therefore not to be taken as a safe diagnostic for syntactically realised agents).

(50) Greek
To plio vithistike epitides.
the ship was-sunk deliberately

Nevertheless, in the absence of such an adverb or a related expression specific to agentive readings, the Greek construction is ambiguous between the passive and other intransitive readings (e.g. anticausative or reflexive). Therefore, in the absence of mechanisms that would allow verbal constructions in which a quasi-existential IA can survive, Greek has to make do with a middle Voice, as proposed by Spathas et al. (2015), which allows the understood agent to be anyone, including the individual referred to by the internal argument (see also Alexiadou & Doron 2012). In other words, the denotation of the relevant Voice head in Greek is the one proposed in (6) above, without the presupposition that derives disjointness – repeated (and adapted) here as (6′). (51a,b) illustrates the relevant contrast

between English and Greek. It remains to be seen if natural languages do this more widely, i.e. whether in the absence of a syntactic mechanism that can be used for the grammaticalisation, i.e. the obligatory expression, of a meaning, related constructions are employed and the otherwise grammaticalised meaning is only an inferred meaning.

(6′) $[\![\text{Middle}]\!] = \lambda f_{es,t}\ \lambda e \exists x.f(x)(e)$

(51) a. They_i were being killed e_{*i} t_i.

b. Skotonondusan
'They were being killed/they were killing themselves/they were killing each other.'

The unavailability of an English-like syntax for existentially-bound agents is due to the feature specification of null subjects and of intervening implicit arguments, as well as the absence of other mechanisms that can circumvent the intervention of the external argument (e.g. participial passives may allow Collins's (2005) smuggling). As opposed to quasi-existential covert pronouns, quasi-universal ones can be projected causing no minimality effects, therefore Greek also has an agentive passive Voice which may only host a (reduced) φ-bundle in its Spec (Legate 2014). This configuration gives rise to generic passives or to episodic passives with a paradoxical first plural interpretation of the understood agent. Generic passives also subsume dispositional middles in Greek, which have independently been argued by Lekakou (2005) to involve syntactically projected agents.

It would also be interesting to explore whether in some languages the possibility for syntactically expressed implicit arguments is suppressed in a subset of argument-demoting constructions only, thus forcing such argument relationships to be inferred. If extended to examples such as (11a,b), then the present account would also reduce Visser's generalization to relativised minimality: passivisation of the indirect object is impossible exactly because Agree with T is blocked by an intervening IA which controls into a non-finite complement clause. Such an explanation would have wider implications for the analysis of goal passives more generally, but I will leave this issue open for future research. Finally, another set of predictions of the present account that needs to be tested concerns languages with partial pro drop, especially subject drop which is available only for some person values but not others; the prediction is that the same arbitrary element should exhibit variable minimality effects, depending on the person feature of the promoted/agreeing internal argument. This is also something that I will put aside now and hope to address in future work.

Abbreviations

1	first person	GEN	genitive
3	third person	IA	implicit agent
CL	clitic	PIC	phase impenetrability condition
CLLD	clitic left dislocation	PL	plural
CLRD	clitic right dislocation	POSS	possessive
DAT	dative	SG	singular
EA	external argument		
EPP	extended projection principle		

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