Grammatical (non-)identity in Greek participles The diachrony of Greek -menos

Laura Grestenberger

University of Vienna Laura.Grestenberger@univie.ac.at

Theoretical approaches to grammatical (non-)identity in synchrony and diachrony, DGfS 2020, March 4–6, 2020

Introduction: synchronic and diachronic (non-)identity

- (1)Synchronic (non-?)identity: perfect/passive participle "syncretism" in German, English, Romance ...
 - Die Livia hat die Schildkröte **gewaschen**
- perfect eventive/verbal passive

- b. Die Schildkröte wurde **gewaschen**

Die Schildkröte ist gewaschen

adjectival/stative passive

Introduction: synchronic and diachronic (non-)identity

- (1) Synchronic (non-?)identity: perfect/passive participle "syncretism" in German, English, Romance ...
 - a. Die Livia hat die Schildkröte **gewaschen**

perfect

b. Die Schildkröte wurde gewaschen

eventive/verbal passive

c. Die Schildkröte ist **gewaschen**

adjectival/stative passive

 \approx same affix in different contexts

➤ Synchronically "identical" in terms of their synsem-features, selection of functional structure, "attachment site"....?

Kratzer 1996, 2001, Embick 2003, 2004b, Sleeman 2011, Alexiadou et al. 2014, Wegner 2019a,b, Hallman 2019, etc.

Introduction: synchronic and diachronic (non-)identity

Today's puzzle:

- (2) a. Diachronic (non-)identity? Ancient Greek (AG) "middle participle" -menos vs. Modern Greek (MG) "passive participle" -menos.
 - b. Synchronic (non-)identity? Two types of passive readings of MG -menos.
 - ▶ How did AG -menos become MG -menos? What changed? Selectional properties, features of the suffix?
 - ► Can these changes shed light on (non-)identity in participles more generally?

Outline

- Background on participles and voice morphology
- ➤ Syntax of MG "passive" -menos
- ▶ Syntax of AG -menos: "middle" properties of the suffix
- ► Analysis
 - Crucial difference is whether or not PTCP selects Voice (Anagnostopoulou 2003, Alexiadou & Anagnostopoulou 2008, Grestenberger 2018, To appear).
 - ► Changes in selectional properties result from reanalysis under "structural ambiguity"—for participles (usually) from stative → eventive (but also vice versa).
 - ▶ Synchronic identity ensues when an additional reading (= more structure) is gained through diachronic reanalysis.
 - ▶ Diachronic non-idenity is the result of loss of functional structure.

Background: Participles & Voice

Participles

- ▶ Participles: deverbal nominalizations that are integrated in a verbal paradigm; nonfinite verbal forms or "adjectival verb forms" (Lowe 2015).
 - ▶ In a non-lexicalist approach (here: DM), "integrated into a paradigm" is not relevant—what's important is the notion that participles share "some verbal properties" with finite verb forms.

Participles

- ▶ Participles: deverbal nominalizations that are integrated in a verbal paradigm; nonfinite verbal forms or "adjectival verb forms" (Lowe 2015).
 - ▶ In a non-lexicalist approach (here: DM), "integrated into a paradigm" is not relevant—what's important is the notion that participles share "some verbal properties" with finite verb forms.
- ▶ Differences in participial syntax result from different attachment sites of the participial suffix.
 - E.g., Embick 1997, 2000, 2004b, Anagnostopoulou 2003, 2014, Alexiadou et al. 2007, Alexiadou & Anagnostopoulou 2008, Alexiadou et al. 2015, Baker & Vinokurova 2009, Baker 2011, Harley 2009 ...
- \rightarrow "faint identity" approaches (Wegner 2019a)

Passives: "verbal" vs. "adjectival" passives:

(3) a. The letter was written by Mary
b. The letter is well-written (adjectival)

Passives: "verbal" vs. "adjectival" passives:

- (3) a. The letter was written by Mary (verbal)
 - b. The letter is well-written

(adjectival)

More fine-grained distinction (Kratzer 2001, Anagnostopoulou 2003, Embick 2004b, etc.):

- (4) a. The door was opened (eventive)
 - b. The door was opened (resultative; state resulting from an event)
 - c. The door was open (state; no prior event)

(Embick 2004b; eventive \approx resultant state in Anagnostopoulou 2003; resultative \approx target state)

► Cross-linguistic variation in lexification of these options (open—open-ed); eventive passives often synthetic; syncretism between some or all of these contexts.

- ▶ Cross-linguistic variation in lexification of these options (open—open-ed); eventive passives often synthetic; syncretism between some or all of these contexts.
- ▶ Modern Greek: Two types of "passive" participles: -menos (-men-o-s) vs. -tos (-t-o-s).
 - ▶ Holton et al. 1997, 234ff., Embick 1997, 134ff., Anagnostopoulou 2003, Alexiadou & Anagnostopoulou 2008, Alexiadou et al. 2015.
- (5) -menos vs. -tos participles

```
Verb
                      -tos
        -menos
                                 'boiled'
vrazo
        vras-menos
                      vras-tos
psino
        psi-menos
                      psi-tos
                                 'grilled'
aniqo
        aniq-menos
                      anih-tos
                                 'opened; open'
klino
        klis-menos
                      klis-tos
                                 'closed'
```

MG passive participles

Differences between -menos and -tos (Anagnostopoulou 2003, Alexiadou & Anagnostopoulou 2008, Alexiadou et al. 2015):

- -menos has event implications, -tos does not.
- ▶ Only -menos is used in periphrastic verbal constructions.
- -menos licenses manner adverbs, -tos does not, (6).
- (6)To this avrofilatio itan prosektika aniq-meno / *anih-to. the safe was cautiously open-PTCP / open-PTCP "The safe was cautiously opened" (Alexiadou et al. 2015, 156, ex. (26a))

MG passive participles

- ightharpoonup -menos can license agent by-phrases, -tos never does.
- (7) To psari itan tiganis-meno / *tigan-ito apo tin Maria.
 the fish was fry-PTCP / fry-PTCP by the Maria
 "The fish was fried by Maria" (Alexiadou et al. 2015, 156, ex. (23a))

MG passive participles

Anagnostopoulou 2003, Alexiadou & Anagnostopoulou 2008, Alexiadou et al. 2015:

- ightharpoonup -tos attaches directly to the root, (8).
- ▶ -menos either selects v ("target state participles"), (9a) or v+Voice ("resultant state participles"), (9b).

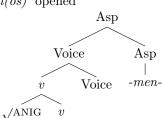
b.

(8) MG tos-participles: anih-t(os) 'open'



(9) MG menos-participles: anig-men(os) 'opened'

a. Asp $\begin{array}{c|cccc}
v & \text{Asp} \\
\hline
\sqrt{\text{ANIG}} & v & -men\end{array}$



Passive participles: MG -menos

Target vs. resultant state (Kratzer 2001)

- ▶ Target state participles express reversible states and can be modified by the adverb *akoma* 'still', (10a).
- ▶ Resultant state participles express an irreversible state and are incompatible with *akoma*, (10b) (ex. from Alexiadou et al. 2015, 157).
- (10) a. Ta pedhia ine akoma kri-mena the children are still hide-PTCP "The children are still hidden."
 - b. Ta ruxa ine (* akoma) stegno-mena. the clothes are (still) dry-PTCP "The clothes are (still) dried."

Passive participles: MG -menos

Alexiadou, Anagnostopoulou & Schäfer 2015, 159: "the target state construal of participles is blocked in the presence of Voice in Greek, which forces a resultant state interpretation."

- ightharpoonup -menos-participles that are modified by akoma 'still' are incompatible with agent by-phrases, while resultant state participles are fine with them:
- (11) Ta lastiha itan (* akoma) fusko-**mena** apo tin Maria the tires were (still) inflate-PTCP by the Maria "The tires were still inflated by Maria" (Anagnostopoulou 2003, 22)

Additional assumptions

- ▶ "PTCP" (participial/nominalizing morphology) spells out Asp if there is no verb movement to T (or Agreement with T is blocked).
 - Embick 2000, 2003, 2004b, Alexiadou & Anagnostopoulou 2008, Bjorkman 2011, Alexiadou et al. 2015.

Additional assumptions

- ▶ "PTCP" (participial/nominalizing morphology) spells out Asp if there is no verb movement to T (or Agreement with T is blocked).
 - Embick 2000, 2003, 2004b, Alexiadou & Anagnostopoulou 2008, Bjorkman 2011, Alexiadou et al. 2015.
- ► "PTCP" = a contextual allomorph of Asp.
 - ► Can realize different features of Asp (e.g., perfective vs. imperfective).
 - ➤ Can realize Asp in different environments, e.g. adjacent to Voice[±ext.arg.]—difference between AG active and nonactive/middle participles, Grestenberger 2018, To appear.

Morphological alternation between **active** and **nonactive** on the inflectional endings in specific **canonical contexts**:

(12) Voice alternations in Modern Greek

Function	Nonactive	Active
Anticausative	sikon-ome 'rise'	sikon-o 'raise'
Reflexive	plen-ome 'wash myself'	plen-o 'wash'
Selfbenefactive	promithev-ome 'supply myself'	promithev-o 'supply'
(Medio)passive	skoton-ome 'am killed'	skoton-o 'kill'

Morphological alternation between **active** and **nonactive** on the inflectional endings in specific **canonical contexts**:

(12) Voice alternations in Modern Greek

Function	Nonactive	Active
Anticausative	sikon-ome 'rise'	sikon-o 'raise'
Reflexive	plen-ome 'wash myself'	plen-o 'wash'
Selfbenefactive	promithev-ome 'supply myself'	promithev-o 'supply'
(Medio)passive	skoton-ome 'am killed'	skoton-oʻʻkill'

(13) Voice alternations in Ancient Greek:

Function	Nonactive	Active
Anticausative	daío-mai 'burn, blaze' (itr.)	$dai\bar{-o}$ 'burn sth.'
Reflexive	loúo-mai 'wash myself'	$loú-\bar{o}$ 'wash sth.'
Selfbenefactive	phéro-mai 'carry (away) for myself'	$ph\acute{e}r$ - \bar{o} 'carry, bear'
(Medio)passive	theíno-mai 'am struck, killed'	$thein-\bar{o}$ 'kill, strike'

- ▶ Voice syncretism (Embick 1998, 2004a): the same morphological exponent (here: nonactive/NACT) surfaces in different syntactic environments.
 - ▶ MG: Embick 1998, 2004a, Alexiadou & Anagnostopoulou 2004, Alexiadou 2012, 2013, Alexiadou & Doron 2012, Alexiadou et al. 2015, etc. (Modern Albanian: Rivero 1990, Kallulli 2007, 2013).

- ▶ Voice syncretism (Embick 1998, 2004a): the same morphological exponent (here: nonactive/NACT) surfaces in different syntactic environments.
 - ▶ MG: Embick 1998, 2004a, Alexiadou & Anagnostopoulou 2004, Alexiadou 2012, 2013, Alexiadou & Doron 2012, Alexiadou et al. 2015, etc. (Modern Albanian: Rivero 1990, Kallulli 2007, 2013).

Nonalternating verbs: Verbs that either take only active endings (activa tantum) or only nonactive/"middle" endings (media tantum).

- (14)Some AG activa tantum: eimí 'am', eĩmi 'go', rhéō 'float', a. $mimn\bar{o}$ 'stay', etc.
 - Some AG media tantum: érkhomai 'walk', keĩmai 'lie', dúnamai 'am able to', házomai 'am in awe of', pétomai 'fly', etc.
 - ▶ Media tantum: mostly verbs of movement, psych/experiencer verbs, states.

- ▶ active vs. nonactive morphology in AG & MG = determined by features of Voice.
 - Kratzer 1996, Embick 1998, 2004a, Kallulli 2007, Kallulli 2013, Harley 2013, Alexiadou et al. 2015, Schäfer 2017, etc.

- active vs. nonactive morphology in AG & MG = determined by features of Voice.
 - Kratzer 1996, Embick 1998, 2004a, Kallulli 2007, Kallulli 2013, Harley 2013, Alexiadou et al. 2015, Schäfer 2017, etc.
- ightharpoonup Voice syncretism in AG/MG = a property of VoiceP:
- (15) Voice \rightarrow Voice[NonAct]/_ No DP specifier (Alexiadou et al. 2015, 102, after Embick 2004a, 150)

- ▶ active vs. nonactive morphology in AG & MG = determined by features of Voice.
 - Kratzer 1996, Embick 1998, 2004a, Kallulli 2007, Kallulli 2013, Harley 2013, Alexiadou et al. 2015, Schäfer 2017, etc.
- \triangleright Voice syncretism in AG/MG = a property of VoiceP:
- (15) $Voice \rightarrow Voice[NonAct]/$ No DP specifier (Alexiadou et al. 2015, 102, after Embick 2004a, 150)
 - ACT = elsewhere.

(16) Distribution of active vs. nonactive morphology (Kallulli 2013):

	+ext.arg.	-ext.arg.
Voice	ACT	NONACT
_	n/a	ACT

 \rightarrow "[-ext.arg.]" = cover term for different contexts without an agent argument, or different "flavors" of Voice (Alexiadou et al. 2015, Schäfer 2017, Kastner 2019, etc.):

▶ Semantic: does Voice introduce an agent ϑ -role?

Syntactic: is Voice $[\pm D]$?

- (17) Alexiadou et al. 2015, Schäfer 2017: Typology of Voice (modified):
 - a. Active Voice: $\{\lambda x \lambda e[agent(e, x)], +D\}$ (active)
 - b. Medio-passive Voice: $\{\lambda e \exists x [agent(e, x)], -D\}$
 - "unsaturated Voice": introduces an agent ϑ -role, but no external argument DP \to agent = existentially bound
 - c. Medio-marked expletive Voice: $\{\emptyset, -D\}$
 - ► Morphologically nonactive anticausatives, various *media* tantum, etc.
 - d. Passive input Voice: $\{\lambda x \lambda e[agent(e, x)], -D\}$
 - ightharpoonup "unsaturated Voice": introduces an agent ϑ -role, but no external argument DP
 - ▶ → input for "high passive" Voice head with an adjoined agent by-phrase which saturates the ϑ -role (Bruening 2013, Schäfer 2017)

Ancient Greek -menos

Distribution

AG -menos can be formed to any verb that inflects as nonactive in the finite forms, independent of its argument structure/valency \rightarrow "middle" participle.

(18) AG -menos and finite verbs

	active	nonactive	-menos
alternating	$ph\acute{e}r$ - \bar{o}	phéro-mai	pheró-menos
	'carry'	'carry for myself'	'carrying for myself'
	$aith-ar{o}$	a i tho- mai	$aith\'o-menos$
	'kindle' (tr.)	'burn, blaze' (itr.)	'burning, blazing' (itr.)
media tantum	_	keĩ-mai	keí-menos
		'lie'	'lying'
	_	$\acute{e}rkho ext{-}mai$	$erkh\'o-menos$
		'walk'	'walking'
activa tantum	ei-mí	_	_
	'am'		

AG -menos

- ▶ "middle" participle: AG -menos has the same range of functions as the corresponding finite forms (reflexive, selfbenefactive, anticausative), including the various media tantum uses.
- (19) Intransitive/motion verb (Hom., Il. 4.514–16)

autàr Akhaioùs õrse (...) kudíst-ē but Achaeans.ACC urged most.glorious-NOM.F Tritogéneia **erkho-mén-ē kath' hómilon** Tritogeneia.NOM.F walk.PRES-PTCP.NACT-NOM.F among crowd

"But (as for) the Achaeans; ... the most glorious Tritogeneia urged (them) on, walking among the crowd ..."

AG -menos

(20) Transitive, self-benefactive (Hdt., *Hist.* 1.66.3)

hoi Lakedaimónioi, (...) hoì dè $p\'ed\bar{a}s$ the Lakedaemonians.NOM they PTCL chains.ACC pher'o-men-oi epì $Tege\'et\bar{a}s$ estrate\'uonto ... carry.PRES-PTCP.NACT-NOM.PL on Tegeans.ACC advanced

"The Lakedaemonians, (...) they advanced on the Tegeans (with their army), carrying chains ..."

(21) (Medio)passive (Hdt., *Hist.* 2.29.2)

tò plo \tilde{i} on oikhetai **pheró-men-on hupò** the boat.NOM goes.off carry.PRES-PTCP.NACT-NOM.SG.N by $iskh\acute{u}os$ $to\~{u}$ $rh\acute{o}ou$ strength.GEN the.GEN current.GEN

"... the boat gets lost, carried off by the strength of the current."

AG -menos and stem-forming morphology

- ▶ AG -menos can combine with all tense/aspect stems: present, aorist, perfect, future.
- (22) Nonactive finite forms & menos-participles of tithemai 'place/put for myself; am placed' in AG

$_{ m stem}$	finite verb	participle
present	\underline{tithe} - mai	$\underline{tith\acute{e}} ext{-}menos$
aorist	$(e)\underline{th\acute{e}}$ - $m\bar{e}n$	$\underline{th\acute{e}}$ - $menos$
perfect	$\underline{t\acute{e}thei} ext{-}mai$	<u>téthei</u> -menos

AG -menos and adverbial modification

AG -menos (and its active counterpart) can be modified by manner- and event-oriented adverbs such as $e\tilde{u}$ 'well', $p\acute{a}lin$ 'again, re-' and $biai\acute{o}teron$ 'violently':

- (23) AG -menos + manner/event adverbs (Thuc., Pelop. War, 3.89.5)
 - ... tèn thálassan kai eksapínēs **pálin**the.ACC sea.ACC and suddenly again
 epispō-mén-ēn biaióteron tèn epiklusin
 recoil.PRES-PTCP.NACT-ACC.SG.F violently the.ACC flood.ACC
 poieĩn
 do.PRES.INF
 - "... the sea, suddenly recoiling again violently, causes the flood."

AG -menos and agent by-phrases

Passive uses of -menos are compatible with agent by-phrases.

(24) Passive -menos + demoted agent (Hdt., Hist. 1.19.1; George 2005, 24)

 $t\tilde{o}i$ $d\dot{e}$ $du\bar{o}dek\acute{a}t\bar{o}i$ $\acute{e}t\ddot{e}i$ $l\tilde{e}\acute{i}ou$ the DAT PTCL twelfth DAT year DAT crop. GEN empipra- $m\acute{e}n$ -ou $hup\grave{o}$ $t\tilde{e}s$ $strati\tilde{e}s$... burn.up.PRES-PTCP.NACT-GEN by the GEN army. GEN

"In the twelfth year, when the crops were being burned by the army, ..."

Summary

- ▶ AG -menos forms "middle" (anticausative, reflexive, mediopassive, ...) participles.
- ... from any stem that is compatible with **nonactive** finite verbal morphology (voice morphology relevant, not valency).
- ► AG -menos can take direct objects, i.e., is compatible with active, transitive syntax.
- compatible with intransitive verbs (esp. itr. media tantum).
- combines with all tense-aspect stems.
- (limited use in periphrastic constructions, except for the perfect nonactive participle).

Recap: Modern Greek -menos

Recap: Modern Greek -menos

MG -menos

- \triangleright only combines with the perfective stem \approx "perfect passive participle'.
 - ▶ formally continues AG perfect/aorist participles after the collapse of the distinction by Early Modern Greek (Holton & Manolessou 2010).
- ▶ forms exclusively *passive* participles.
- combines with morphologically active or nonactive verbs (valency relevant, not voice morphology):
- (25) MG -menos and its base verbs (present stem)

		verb	meaning	participle	meaning
ŧ	active	agapo	'love'	$agapim\'enos$	'loved'
		deno	'tie'	$dem\'enos$	'tied'
		kalo	'call'	$kales m\'enos$	'called'
1	nonactive	metahirizome	'use'	$metahiris m\'enos$	'used'
		varieme	'am bored'	$variestim\'enos$	'bored'
		ekmetalevome	'exploit'	$ekmetalev m\'enos$	'exploited'

Recap: Modern Greek -menos

MG -menos

- never takes direct objects.
- does not combine with intransitive verbs
 - Exceptions: Holton et al. 1997, 237: (ine) perpatimenos 'has walked'.
 - ▶ anticausative/unaccusative psych verbs (active) form stative -menos-participles, e.g., thimono 'get angry': thimoménos 'angry' (Alexiadou & Iordăchioaia 2014, 63, Alexiadou 2018, 18).
- ▶ is compatible with manner and event-oriented adverbs.
- ▶ is compatible with demoted agents (resultant state reading).
- ▶ is used in periphrastic (perfect) passive constructions:
- (26) To vivlio ine **gram-meno** apo tin Maria the book is written by the Maria "The book is written by Maria"

(27) Properties of -menos in AG vs. MG

transitive, ACC-object possible $\stackrel{AG}{\checkmark}$ $\stackrel{MG}{\checkmark}$

(27) Properties of -menos in AG vs. MG

	$\overline{\mathrm{AG}}$	MC
transitive, ACC-object possible	✓	X
periphrastic passives	(*)	/

AG

Summary

(27) Properties of -menos in AG vs. MG

MG

(27) Properties of -menos in AG vs. MG

(27)Properties of -menos in AG vs. MG

	\overline{AG}	MG
transitive, ACC-object possible	✓	X
periphrastic passives	(/)	✓
deponents	active syntax	passive syntax
sensitive to finite verb voice morphology	✓	X
sensitive to valency	X	✓

(27) Properties of -menos in AG vs. MG

	\overline{AG}	MG
transitive, ACC-object possible	✓	×
periphrastic passives	(✓
deponents	active syntax	passive syntax
sensitive to finite verb voice morphology	✓	×
sensitive to valency	×	✓
passive reading	✓(possible)	✓(required)

AG

Summary

(27) Properties of -menos in AG vs. MG

transitive, ACC-object possible	✓	×
periphrastic passives	(✓
deponents	active syntax	passive syntax
sensitive to finite verb voice morphology	✓	×
sensitive to valency	×	✓
passive reading	✓(possible)	✓(required)
by-agent possible	✓	V

MG

Analysis

b.

Properties of AG -menos (direct obj., "voice syncretism", adverbial modification, etc.) suggest selection of (at least) VoiceP + vP:

(28) a. $pher-\acute{o}-men-o-s$ 'carrying (for one's own benefit)' carry-V-PTCP.NACT-M-NOM.SG

Analysis: AG

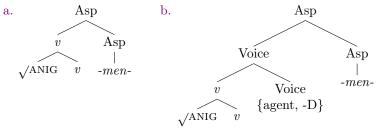
▶ Crucially, judging from the fact that AG -menos was compatible with all flavors of "Voice[-ext.arg./-D]" (not just mediopassive, but also anticausative, selfbenefactive, etc.), it was not restricted to selecting just "passive input Voice".

- ▶ Crucially, judging from the fact that AG -menos was compatible with all flavors of "Voice[-ext.arg./-D]" (not just mediopassive, but also anticausative, selfbenefactive, etc.), it was not restricted to selecting just "passive input Voice".
- ► The distribution/realization of nonactive -menos- and active -nt-participles therefore mirrors that of the active/nonactive finite endings:
- (29) Realization of AG participles (Grestenberger 2018, cf. Embick 2000):
 - a. Asp \leftrightarrow -men(os)/ Voice[-ext.arg] _
 - b. Asp \leftrightarrow -nt-: elsewhere

Analysis: MG -menos

▶ No Voice in target state participles (Anagnostopoulou 2003, etc.), (30a).

(30) MG menos-participles: anig-men(os) 'opened' (modified)



- ► Loss of VoiceP = loss of "middle" properties.
 - ▶ E.g., the ability to occur in transitive (selfbenefactive, etc.) contexts with an ACC object, etc.
- ► MG resultant state, (30b): selects Voice $\{\lambda x \lambda e[agent(e, x)], -D\} \rightarrow demoted agent.$

(Re)analysis

- ► This suggests that the starting point for the loss of "middle" uses of -menos were (medio)passive contexts in which the participle could be interpreted as (target state) passive participle
 - ... presumably -menos-participles from AG perfect stems of transitive verbs → very often passive already in Homeric Greek (Schwyzer & Debrunner 1950, Napoli 2017).
 - ▶ perfect participles in -menos are the only menos-participles used in periphrastic constructions in AG, and predominantly in Early Post-Classical Greek (Bentein 2012).
- ightharpoonup VoiceP failed to be acquired during L1 acquisition in these contexts
- ightharpoonup -menos only compatible with a target state/passive reading.

(Re)analysis

(31) Periphrastic perfect passive ptcp. (Hdt., *Hist.* 6.98.3)

```
kaì en khrēsmõi \tilde{\bf e}n gegram-mén-on perì aut\tilde{\bf e}s and in oracle was write.PERF-PTCP.NACT-NOM.N about self.GEN hõde: ...
```

thus

"And in the oracle thus (it) was written about it(self) (the island Delos): ..."

Contrast with syntactically active, transitive present nonactive participle graphómenos & aorist nonactive participle grapsámenos in the same work:

(32) bublía grapsá-men-os pollà letters.ACC write.AOR-PTCP.NACT-NOM.M many.ACC "having written many letters" (Hdt., Hist. 3.128.2)

(Re)analysis

Postclassical/Early Byzantine examples:

- (33) a. A. Thom. 122.11–12 (Bentein 2012, 232)

 oukh hēmeīs tàs thúras ēsphalisámetha kai põs nũn

 not we the doors.F fastened and how now

 aneōig-mén-ai eisìn kai hoi desmỗtai éndon

 open.PERF-PTCP.NACT-NOM.PL.F are and the prisoners inside

 "did not we fasten the doors? And how are they now open, and
 the prisoners within?"
 - b. Sophr. H., Mir. Cyr. et Jo. 46.14 (Bentein 2012, 264)

 memuk-õta gàr éskhe tà ómmata, kai mēdamõs

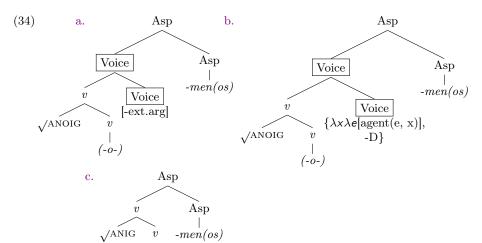
 shut.Perf-ptcp.act.pl.n for had the eyes.pl.n and not.at.all

 anoigó-men-a

 open.Pres-ptcp.nact-pl.n

"he had his eyes closed and not at all **opened**"

Loss of functional structure: AG -menos \rightarrow MG -menos



a. AG "middle" *menos*-ptcp (selects Voice); **b.** AG/postclassical perfect passive ptcp/MG resultant state ptcp (selects Voice{agent,-D}); **c.** MG target state ptcp (selects v).

Loss of functional structure: AG -menos \rightarrow MG -menos

Besides the change in the context for insertion, the aspectual features realized by -menos also changed—suggested by the fact that MG -menos is restricted to the perfective stem:

(35) Postclassical -men(os): $Asp[pfv] \leftrightarrow -men(os) / Voice{agent,-D}$ _

On the way to MG, the Voice head was lost in contexts where acquirers had inadequate evidence for positing agentive semantics, resulting in a "split" of Asp[pfv] into a target state participle and a resultant state participle \rightarrow "faint identity":

- (36) MG men(os):
 - a. Asp[pfv/targ] \leftrightarrow -men(os)/ v _
 - b. $Asp[pfv/res] \leftrightarrow -men(os)/Voice{agent,-D}$

Loss of functional structure

- ▶ Loss of VoiceP = **Reanalysis** under local **acquisitional ambiguity** (\approx "structural ambiguity", cf. "structural simplification").
 - ▶ Roberts & Roussou 2003, Roberts 2007, Willis 2011.

Loss of functional structure

- Loss of VoiceP = Reanalysis under local acquisitional ambiguity (\approx "structural ambiguity", cf. "structural simplification").
 - ▶ Roberts & Roussou 2003, Roberts 2007, Willis 2011.
- ▶ Reanalysis leads to changes in an acquirer's lexicon, crucially in the features of lexical items (realization of functional heads, contexts for insertion, etc.).
 - ► Hale 2007, Walkden 2014 ...
- ➤ Some evidence that English-acquiring children first acquire adjectival/stative passives before they acquire eventive ones (Israel et al. 2000) → suggests that they begin with the lower functional projections before adding the higher ones (cf. also Cournane 2017).

Conclusion

- ▶ Diachrony of Greek "passive" participle suffix -menos suggests that synchronic identity (≈ syncretism?) in derivational categories is the result of reanalysis under acquisitional ambiguity.
- ▶ But this ambiguity must be synchronically available in the input as well—e.g., the target vs. resultant state distinction in MG, or the difference between stative and eventive passives in AG.
- ▶ In Minimalism/DM-based approaches, syntactic change = change in the formal features of the lexicon.
- ▶ In the case of Greek -menos, the change resulted in a more restricted environment for the suffix ([-ext.arg.] to only passive)—but there are also cases in which the environments seemingly expands → lexical entries becomes less restricted.
 - ► E.g., development of "active" *-nt-, Grestenberger To appear.
- ▶ Diachrony of participial forms suggests that this is a regular path of development for adjectival suffixes/"stativizers" → passive participles (Haspelmath 1994).

Thank you!

AG -menos and deponents

Deponents are **noncanonical nonactive** verbs with an agent subject and active (mostly transitive) syntax = **morposyntactic mismatch**.

- (37) Definition of deponency (Grestenberger 2018, 23, 2019): "In an active-nonactive voice system, a deponent is a verb with an agent subject that appears in a syntactically active context and is morphologically nonactive."
 - ► = "narrow" definition of deponency, subclass of media tantum.

AG -menos and deponents

Deponents are noncanonical nonactive verbs with an agent subject and active (mostly transitive) syntax = morposyntactic mismatch.

- (37)Definition of deponency (Grestenberger 2018, 23, 2019): "In an active-nonactive voice system, a deponent is a verb with an agent subject that appears in a syntactically active context and is morphologically nonactive."
 - = "narrow" definition of deponency, subclass of media tantum.
 - AG deponent verbs have transitive menos-participles:
- (38)AG deponent dízēmai 'seek sth.', ptcp. dizémenos (Hom., Od. 1.261-2)

őikheto gàr kai keĩse thoês epì nēòs Odusseùs went PTCL and there swift.gen on ship.gen Ulysses.nom phármakon andro-phónon dizé-men-os poison.ACC man-slaying.ACC seek.PRES-PTCP.NACT-NOM.M

"And then Ulysses went into his swift ship, seeking (some) man-slaying poison." ◆□▶ ◆□▶ ◆□▶ ◆□▶ □

MG -menos and deponents

- ▶ MG menos-participles of **deponents** are always passive (unlike in AG).
- (39) Non-deponent grafo 'write':
 - a. To gramma ine grammeno
 The letter.NOM is written

 "The letter is written"
 - b. To grammeno gramma
 The written letter
- (40) Deponent metahirizome 'use':
 - a. To lexiko ine metahirismeno
 The dictionary.NOM is used
 "The dictionary is used"
 - b. To metahirismeno lexiko
 The used dictionary

References I

- Alexiadou, Artemis. 2012. Non-canonical passives revisited: parameters of non-active voice. Linguistics 50. 1079–1110.
- Alexiadou, Artemis. 2013. Where is non-active morphology? In S. Müller (ed.), Proceedings of the 20th International Conference on Head-Driven Phrase Structure Grammar, 244–62. CSLI publications.
- Alexiadou, Artemis. 2018. Voice and the architecture of grammar. Paper presented at WAASAP 4, Barcelona, June 7–8, 2018.
- Alexiadou, Artemis & Elena Anagnostopoulou. 2004. Voice morphology in the causative-inchoative alternation: evidence for a non-unified structural analysis of unaccusatives. In A. Alexiadou, E. Anagnostopoulou & M. Everaert (eds.), *The Unaccusativity Puzzle*, 114–36. Oxford University Press.
- Alexiadou, Artemis & Elena Anagnostopoulou. 2008. Structuring participles. In Ch. B. Chang & H. J. Haynie (eds.), Proceedings of the 26th West Coast Conference on Formal Linguistics, 33–41. Somerville, MA: Cascadilla.
- Alexiadou, Artemis, Elena Anagnostopoulou & Florian Schäfer. 2015. External arguments in transitivity alternations: a layering approach. Oxford University Press.
- Alexiadou, Artemis & Edit Doron. 2012. The syntactic construction of two non-active voices: passive and middle. *Journal of Linguistics* 48. 1–34.
- Alexiadou, Artemis, Berit Gehrke & Florian Schäfer. 2014. The argument structure of adjectival participles revisited. Lingua 149. 118–138.
- Alexiadou, Artemis, Liliane Haegeman & Melita Stavrou. 2007. Noun phrase in the generative perspective. Berlin: Mouton de Gruyter.

References II

- Alexiadou, Artemis & Gianina Iordăchioaia. 2014. The psych causative alternation. Lingua 148, 53–79.
- Anagnostopoulou, Elena. 2003. Participles and voice. In A. Alexiadou, M. Rathert & A. von Stechow (eds.), *Perfect explorations*, 1–36. Berlin: Mouton de Gruyter.
- Anagnostopoulou, Elena. 2014. Decomposing adjectival/stative passives. Paper given at the MIT Linguistics Colloquium, Feb. 14 2014.
- Baker, Mark. 2011. Degrees of nominalization: Clause-like constituents in Sakha. Lingua 121. 1164–93.
- Baker, Mark & Nadya Vinokurova. 2009. On agent nominalizations and why they are not like event nominalizations. *Language* 85(3). 517–556.
- Bentein, Klaas. 2012. Perfect periphrases in Post-Classical and Early Byzantine Greek: An ecological-evolutionary account. *Journal of Greek Linguistics* 12. 205–275.
- Bjorkman, Bronwyn. 2011. BE-ing default: The morphosyntax of auxiliaries: MIT dissertation.
- Bruening, Benjamin. 2013. By-phrases in passives and nominals. Syntax 16(1). 1–41.
- Cournane, Ailís. 2017. In defense of the child innovator. In É. Mathieu & R. Truswell (eds.), Micro-change and macro-change in diachronic syntax, 10–24. Oxford: Oxford University Press.
- Embick, David. 1997. Voice and the Interfaces of Syntax: University of Pennsylvania dissertation.

References III

- Embick, David. 1998. Voice systems and the syntax/morphology interface. In H. Harley (ed.), Papers from the UPenn/MIT roundtable on argument structure and aspect, 41–72. MIT Working Papers in Linguistics 32.
- Embick, David. 2000. Features, syntax, and categories in the Latin perfect. Linguistic Inquiry 31(2). 185–230.
- Embick, David. 2003. Locality, listedness, and morphological identity. Studia Linguistica 57(3). 143–169.
- Embick, David. 2004a. Unaccusative syntax and verbal alternations. In A. Alexiadou, E. Anagnostopoulou & M. Everaert (eds.), The unaccusativity puzzle, 137–58. Oxford: Oxford University Press.
- Embick, David. 2004b. On the structure of resultative participles in English. *Linguistic Inquiry* 35(3). 355–392.
- George, Coulter H. 2005. Expressions of agency in Ancient Greek. Cambridge University Press.
- Grestenberger, Laura. 2018. Deponency in finite and nonfinite contexts. Language 94(3). 487–526.
- Grestenberger, Laura. 2019. Deponency in morphology. Oxford research encyclopedia of morphology. doi:10.1093/acrefore/9780199384655.013.553.
- Grestenberger, Laura. To appear. The diachrony of participles in the (pre)history of Greek and Hittite: Losing and gaining functional structure. *Diachronica*.
- Hale, Mark. 2007. Historical Linguistics. Theory and Method. Blackwell.
- Hallman, Peter. 2019. D-licensing in adjectival passives. Studia Linguistica 73(3). 522-562.

References IV

- Harley, Heidi. 2009. The morphology of nominalizations and the syntax of vP. In M. Rathert & A. Giannadikou (eds.), Quantification, definiteness and nominalization, 320–42. Oxford University Press.
- Harley, Heidi. 2013. External arguments and the Mirror Principle: on the distinctness of Voice and v. Lingua 125(1). 34–57.
- Haspelmath, Martin. 1994. Passive participles across languages. In B. Fox & P. J. Hopper (eds.), *Voice: Form and function*, 151–177. Amsterdam: John Benjamins.
- Holton, David, Peter Mackridge & Irene Philippaki-Warburton. 1997. Greek: a comprehensive grammar of the modern language. London: Routledge.
- Holton, David & Io Manolessou. 2010. Medieval and Early Modern Greek. In E. J. Bakker (ed.), A companion to the Ancient Greek language, 539–563. Malden: Wiley-Blackwell.
- Israel, Michael, Christopher Johnson & Patricia J. Brooks. 2000. From states to events: The acquisition of English passive participles. *Cognitive Linguistics* 11(1–2). 1003–29.
- Kallulli, Dalina. 2007. Rethinking the passive/anticausative distinction. *Linguistic Inquiry* 38(4). 770–780.
- Kallulli, Dalina. 2013. (Non-)canonical passives and reflexives: deponents and their like. In A. Alexiadou & F. Schäfer (eds.), Non-Canonical Passives, 337–358. Amsterdam: John Benjamins.
- Kastner, Itamar. 2019. The valence of Voice: Hebrew morphosyntax at the interfaces. Kratzer, Angelika. 1996. Severing the external argument from its verb. In J. Rooryck & L. Zaring (eds.), Phrase Structure and the Lexicon, 109–37. Dordrecht: Kluwer.

References V

- Kratzer, Angelika. 2001. Building statives. In Proceedings of the twenty-sixth annual meeting of the Berkeley Linguistics Society: General session and parasession on aspect (2000), 385–399. Berkeley: Berkeley Linguistics Society.
- Lowe, John J. 2015. Participles in Riguedic Sanskrit: the syntax and semantics of adjectival verb forms. Oxford University Press.
- Napoli, Maria. 2017. To what extent does the Greek participle participate in the passive voice system? In P. Cotticelli-Kurras & V. Sadovski (eds.), "In participle we predicate": Contributions of the comparative and historical linguistics to grammar and semantics of participle, 109–127. Wien: Holzhausen.
- Rivero, María-Luisa. 1990. The location of nonactive voice in Albanian and Modern Greek. Linguistic Inquiry 21(1). 135–46.
- Roberts, Ian. 2007. Diachronic syntax. Oxford University Press.
- Roberts, Ian & Anna Roussou. 2003. Syntactic change: a Minimalist approach to grammaticalization. Cambridge University Press.
- Schäfer, Florian. 2017. Romance and Greek medio-passives and the typology of Voice. In R. D'Alessandro, I. Franco & Á. Gallego (eds.), The verbal domain, 129–52. Oxford University Press.
- Schwyzer, Eduard & Albert Debrunner. 1950. Griechische Grammatik, vol. II: Syntax und syntaktische Stilistik. Munich: Beck.
- Sleeman, Petra. 2011. Verbal and adjectival participles: position and internal structure. Lingua 121. 1569–1587.

References VI

- Walkden, George. 2014. Syntactic reconstruction and Proto-Germanic. Oxford: Oxford University Press.
- Wegner, Dennis. 2019a. The properties of perfect(ive) and (eventive) passive participles: An identity approach. Glossa 4(1). 1–33.
- Wegner, Dennis. 2019b. The underspecification of past participles: On the identity of passive and perfect(ive) participles. Berlin: De Gruyter.
- Willis, David. 2011. Reconstructing last week's weather: Syntactic reconstruction and Brythonic free relatives. *Journal of Linguistics* 47, 407–466.