

Article

High and Low Arguments in Northern and Pontic Greek

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Abstract: This paper deals with the distribution of the use of the accusative as an indirect object in two major dialect groups of Modern Greek, namely Northern Greek and Pontic Greek. The loss of the dative in Medieval Greek (c. 10th c. AD) resulted in the use of the genitive as an indirect object in the southern varieties and of the accusative in Northern Greek and Asia Minor Greek. As Standard Modern Greek employs the genitive, little attention has been paid to the distribution of the accusative, and our study was aimed to fill that gap by presenting data collected in Northern Greece from speakers of both dialect groups. According to our findings, the accusative is exclusively used in all syntactic domains inherited from the Ancient Greek dative in both dialect groups, but the two groups are kept apart in terms of the obligatoriness vs. optionality or lack of clitic doubling and availability vs. lack of “high” positions, e.g., for external possessors and ethical dative constructions.

Keywords: syntax; indirect object marking; Modern Greek dialects



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1. Introduction

One of the most important isoglosses in Modern Greek dialectology is the split between dialects using the genitive and dialects using the accusative for the expression of indirect objects and for other functions inherited from the Ancient Greek dative. This dichotomy dates back to the end of the early Medieval Greek period (10th c. AD), when the ancient dative had already been completely lost and the two other cases were being used in its place. In the vast majority of varieties, this split was strict and without variation, with the genitive employed in the varieties conventionally called Southern Greek and the accusative in (most of) Northern Greece and (most of) Asia Minor.

Despite the fact that Greek is one of the most intensively studied languages, due to its long and well-documented history, there are some crucial issues that have not been thoroughly examined. The most important reason for this is the paucity of vernacular sources from the early Medieval Greek period (5th–10th c. AD); prose texts in the vernacular are also quite limited in late Medieval Greek (11th–15th c. AD). Thus, in order to improve our understanding of the loss of the dative and its replacement by the genitive and accusative, it is crucial to analyze the properties of the varieties employing these two cases. As Standard Modern Greek (henceforth SMG) employs the genitive, whose use as an indirect object has received the greatest attention, we have focused on the two major dialect groups that employ the accusative, i.e., Northern and Pontic Greek, the latter being the largest dialect group formerly spoken in Asia Minor before 1922, when the population exchange between Greece and Turkey took place.

The accusative as an indirect object can be used with ditransitive verbs in roles such as goal (recipient/addressee), source, and beneficiary/maleficiary, as well as with intransitive verbs in roles such as goal, experiencer, source, external possessor and “ethical dative”. Other issues that need to be examined involve its alternation with the prepositional phrase

*se*¹ “to” + acc. (“dative alternation”), its use with passive verbs, the imperative, the role of word order and clitic doubling.

In this paper, we present the findings of fieldwork that was conducted in Northern Greece with native speakers of both Northern and Pontic Greek, and we offer a theoretical analysis of the features that the two varieties exhibit. Even though our research is highly extensive, it is clear that this topic is by no means exhausted; further research is still required, e.g., on other subgroups of the Northern dialect group and Eastern Asia Minor Greek (e.g., Cappadocian).

Our paper is organized as follows. First, the historical background of the loss of the dative and the dialectal split is presented, as these form the context for the Ancient Greek datives on which we focus. The next section describes the methodology used in both our fieldwork and our analysis of the findings. The next two sections present the findings for Northern and Pontic Greek in all relevant environments. In the final section, we describe the empirical generalizations arising from our work, propose an analysis of the findings, and present our conclusions.

2. Historical Background

2.1. The Ancient Greek Dative and Its Loss in Early Medieval Greek (5th–10th c. AD)

As suggested earlier, the loss of the dative was a gradual process that needs to be traced back to the structural features of the Ancient Greek case system. As is well-known, the oblique cases of Ancient Greek—the genitive, the dative, and the accusative—were highly polysemous due to a number of mergers among the inherited cases of the Proto-Indo-European case system. More specifically, the genitive (which had possessive and partitive functions) acquired the functions of the ablative, the dative inherited the functions of the locative and the instrumental, and the accusative was also used to mark time and direction (cf. Luraghi 2003). The semanto-syntactic range of the dative can be summarized in Table 1 (based on Luraghi 2003).

Table 1. The semanto-syntactic network of the ancient dative.

	DATIVE PROPER	INSTRUMENTAL	LOCATIVE
<i>direct object</i>	+animacy, +contact	-animacy	-animacy
<i>indirect object</i>	recipient, addressee, beneficiary/maleficiary, experiencer	-	-
<i>possessive</i>	Predicative/adnominal (+proximity)	-	-
<i>prepositional</i>	<i>epi</i> “on”: purpose	<i>sún</i> “with”: comitative	<i>en</i> “in” etc.
<i>adverbial</i>	agent, purpose	manner, instrument, cause	location (rare)

The term “dative proper”, ultimately inherited from the seminal work of (Humbert 1930), refers to the core functions of the dative and its adverbial use as a goal with ditransitive verbs, as a beneficiary/maleficiary with transitive and intransitive verbs, as a goal with intransitive verbs, as an experiencer with *piacere*-type verbs and impersonal constructions, and as the sole complement of specific transitive verb classes (e.g., *help* and *fight*) with which the dative can have the role of a beneficiary/maleficiary argument or an animate patient partially affected by the action of the verb (cf. Luraghi 2003, pp. 53–54). Other adverbial uses include the possessive use of the dative proper with the existential *eimí* and its use as an ethical dative with a wide range of verbs.

In order to trace the course of the loss of the dative, it is important to understand the internal hierarchies of the oblique cases. The dative was the most marked case, as it was the least frequent (cf. Winter 1971) and had the narrowest syntactic distribution, e.g., being used with fewer prepositions than the genitive and the accusative (cf. Bortone 2010). A clear example of that is that the bare dative was the first case to undergo the complete loss

of its spatial (locative) use during the Archaic Greek period (8th–6th c. BC). Furthermore, as Bortone (2010, pp. 181–82) pointed out, in Hellenistic Greek, the use of the dative with prepositions in either locative or instrumental constructions began to face competition from prepositions governing the genitive or the accusative: *en* “in” + dative → *eis* “to” + accusative and bare instrumental dative/*sún* “with” + dative → *metá* “with” + genitive.

In addition to the competition faced by the concrete/semantic uses of the dative, its grammatical uses also began to retreat. Thus, there was already a strong tendency in HellG for the accusative to become the exclusive case of direct object marking, which means that it started to be used instead of either the genitive or the dative, e.g., *árkhō: tinos* (GEN) → *árkhō: ti* (ACC) “I rule over something” and *boē:théo: tini* (GEN) → *boē:théo: ti* (ACC) “I assist something”. Even though the indirect object functions of the dative were the longest lasting, the sporadic replacement of this case by either the genitive or the accusative can be seen in data from the non-literary papyri of late HellG in Egypt:

- (1) δός ἐμοί [DAT] /ð'os em'y/ “give me” (l. 20)
 εἶρηκά σου [GEN] /'irik a su/ “I have told you” (l. 20)
 σε [ACC] δίδω /se ð'ido/ “I give you” (l. 24)
 P.Oxy. XIV 1683 (4th c. AD, Oxyrhynchos)

Unfortunately, due to a lack of vernacular sources in the crucial period of early MedG (5th–10th c. AD), the exact course of this loss has not been properly documented. Nevertheless, we can identify two major factors that resulted in the merger of the dative with the accusative and the genitive. The first factor pertains to the phonological overlap between several dative forms and accusative ones (see also the discussion by Horrocks [1997] 2010). More specifically, the monophthongization of /ai/ to /e/, /a:i/ to /a/, /ɔ:i/ to /o/, and /ɛ:i/ to /i/, the instability of final /n/ (either through its overextension or its omission); the merger of the first and third declension, and the replacement of the acc.pl suffix *-as* by the nom.pl *-es* resulted in an overlap between dative and accusative in the singular and plural paradigm of a-/i-feminines and a-/i-masculines and between dative and accusative in the singular of o-masculines and o-neuters.

- (2) a-/i-masculines and feminines singular
 ClG dat.sg [tô:i neanía:i]/acc.sg[tôn neanía:n](<*neanías* “young man”[M])
 → LHellG/EMedG dat.sg [to nean'ia]/ acc.sg[ton nean'ia(n)]
 ClG dat.sg [tê:i phé:mē:i]/acc.sg [tê:n phé:mē:n](<*phé:me*: “fame” [F])
 → LHellG/EMedG dat.sg [ti f'imi]/ acc.sg [ti(n) f'imi(n)]
- (3) a-/i-masculines and feminines plural
 ClG dat.pl [tois neaníais]/acc.pl [tù:s neanía:s](<*neanías* “young man” [M])
 → EMedG dat.pl [tys nean'ies]/ acc.pl [tus nean'ies]
 ClG dat.pl [taís phé:mais]/acc.sg [tà:s phé:ma:s](<*phé:me*: “fame” [F])
 → EMedG dat.pl [tes f'imes]/ acc.pl [tas/tes f'imes]
- (4) o-masculines, feminines and neuters singular
 ClG dat.sg [tô:i dó:ro:i]/nom/acc.sg [tò dó:ron] (<*dô:ron* “gift” [N])
 → LHellG/EMedG dat.sg [to ð'oro]/ nom.acc.sg [to ð'oro(n)]
- (5) neuters of non-personal pronouns
 ClG dat.sg [autô:i]/nom/acc.sg [autó] (<*autós/auté:/autó* “the same/this”)
 LHellG/EMedG dat.sg=acc.sg [aft'o]

Markopoulos (2010) noted that the dat.pl and acc.pl of o-masculines and neuters could also be prone to overlap due to the instability of /y/ in EMedG, e.g., τοῖς μοναχοῖς ≈ τοὺς μοναχοὺς [tys/tus monax'ys/-us]. However, the fact that /y/ survived as /(j)u/ in a limited number of varieties (e.g., /ksyr'afin/ => /ksur'afi/ “razer”; mostly in Mani, Kymi, Aegina, Old Athens, Megara) makes this correlation less likely, albeit possible. Similarly, the occasional survival of the ancient ω /ɔ:/ as /u/ in a small number of lexemes cross-dialectally and somewhat more widely in certain dialect groups (cf. the panhellenic /kun'upi/ “mosquito” <AG /kón:ps/) or in more limited cases, e.g., AG /mɔ:ρός/ → modern Dodecanesian /mur'os/ (Kisilier and Liosis, forthcoming), makes it possible that

the gen.sg and dat.sg forms of o-masculines and neuters overlapped in at least some EMedG varieties, although this could not have played a great role overall.

Turning to the second, syntactic, factor, the use of the accusative for indirect objects has deep roots in AG, as there are a few very frequent and prototypically ditransitive verbs that take both an animate and an inanimate accusative. For instance, the ClG *didáskō*: “teach” and *erōtáō*: “ask” employed two accusatives to express the goal and the theme, respectively. Furthermore, *order* verbs that require both an animate goal and a theme in the accusative (usually with demonstrative pronouns) or a dynamic infinitive, e.g., *keleúō*: /*táttō*:/ *epitáttō*:. The fact that the animate accusative of *táttō*:/ *epitáttō*:. could also be replaced with a dative is a clear sign of the interplay between the two cases (cf. [Anagnostopoulou et al., forthcoming](#)). The use of the accusative for the animate object seems to originate in the fact that *order* verbs can be used monotonically as well.

A slightly different ditransitive type involves two accusatives, an animate patient and its inanimate possessum in the accusative, e.g., *nûn d’ emè* [ACC] *méga kûdos apheíleo* “now you have robbed me of great glory” (Homer, *Iliad* 22.18). This is a construction that was more frequent in Archaic Greek and soon began to be replaced by other constructions, e.g., the genitive or a prepositional phrase with *pará* + gen. (both being more suitable for the expression of sources) or a malefactive dative (especially in cases where the animate object is negatively affected by the action of the taking and bereaving). The fact that it initially employed the accusative for the animate object is a sign that these verbs were initially monotransitives.

Remind verbs can also take this ACC–ACC construction occasionally in ClG, e.g., *anamimné:skō:n spehas tò khre:stē:rion* “reminding them of the oracle” Herodotus 6.140.1. Already in non-literary papyri of the 3rd c. BC (cf. P. Lille 12.1), the dative was attested in such structures similarly to MG (e.g., *su thimízo* “I remind you”). Finally, the use of the accusative as the subject of dynamic infinitives functioning, as the object of ditransitive verbs could have also been reanalyzed as an indirect object, cf. ClG *eîpen autoîs elthē:n* “he told them to come” / *eîpen autû:s elthē:n* “he said for them to come”.

The syntactic affinity between the genitive and the dative is also very strong. The most common syntactic environments for the interplay between the two cases are the use of the dative in predicative possession (cf. [Benvenuto and Pompeo 2012](#)) and external possessive constructions in which the genitive is placed outside the NP of the possessum. More specifically, pronominal clitics placed right after the verb could easily be reanalyzed as beneficiaries or maleficiaries ([Stolk 2017](#)).

The facts that the dative has left no dialectal vestiges² and that the dative forms in LMedG almost always follow the rules of archaistic language and do not exhibit variation³ are signs that the dative had been lost much earlier (e.g., by the end of 8th c. AD) and not at the very end of the EMedG period (10th–11th c.). It can be assumed that until the dative was completely lost, the accusative and the genitive could be used in parallel, either in free variation or complementary distribution in the spoken language.

2.2. The Split between ACC=IO and GEN=IO Dialects

It is generally agreed that at the beginning of the LMedG period (11th c.), there was no further variation between the two cases and that in the major varieties, the use of the genitive or the accusative was exclusive. This is based on the fact that the genitive is very consistently used in vernacular documents of the 11th c. from Southern Italy ([Minas 1994](#)) and the accusative in the works of Constantinopolitan authors (10th c.). The existence of considerable variation between the two cases in vernacular LMedG verse texts can be attributed to metrical factors and to the artificial nature of this poetic diction, which does not reflect the spoken language of the time, as shown by the frequent use of the dative and other archaistic structures. As will be shown, there are a very small number of modern varieties with the parallel use of the two cases, which corroborates the lack of variation after at the beginning of the LMedG period. In the Greek-speaking world at the beginning of the 20th c. (before the population exchange between Greece, Turkey, and Bulgaria in the

1910s and 1920s), the split was clear. The genitive was employed in Cyprus, Crete, all of the Aegean (apart from Limnos, Thasos, Samothraki, Imbros and Tenedos in the northern Aegean), the western coast of Asia Minor (apart from Kydonies, Vourla and Livisi), the Peloponnese, Central Greece, the Ionian Islands, Western Epirus, and Southern Italy. The peninsula of Ionia (e.g., Smyrna, Tsesme and Alatsata) and Bodrum are well-known cases of the use of the genitive as an indirect object along the coast of Western Asia Minor as opposed to Aivali, Vourla and Livisi.

Common Modern Greek (including its standardized form), which was formed in 19th c. Athens (the capital of the Greek state since 1834), also employs the genitive case despite its influences from Constantinopolitan Greek, as all the varieties spoken in the then much-smaller Greek state were GEN=IO.

The accusative was used in Thessaly, Macedonia, Thrace, the islands of Northern Aegean (apart from Lesbos), Bithynia, Eastern Asia Minor (Pontus, Cappadocia, Pharasa and Silli), and Mariupol in Southern Ukraine. Tsakonian in the Peloponnese also uses the accusative, but the fact that it does not originate from Attic-Ionic like the rest of the modern varieties signifies that it followed a very distinct evolutionary path in general, not only in the expression of the IO functions. The following map (Mertyris 2014, p. 22) depicts the limits of the accusative and the genitive as indirect object in the Greek-speaking world of the early 20th c. (see Figure 1).



Figure 1. The limits of accusative (yellow) and genitive (white) indirect objects in the MG-speaking world (before the beginning of the 20th c.).

Thus, the use of the accusative in MG can be localized in two major dialect groups. First, Northern Greek, which exhibits “northern vocalism”, i.e., the raising of unstressed /e/, /o/ to [i], [u] and the deletion of unstressed /i/, /u/;⁴ the ACC=IO Northern Greek varieties are spoken in Thessaly, Macedonia and Thrace (the Northern varieties of Central Greece and Western Epirus use the genitive). Second, the varieties formerly spoken in Eastern Asia Minor, i.e., in the area of Pontus on the north-eastern coast of modern Turkey and the varieties of Cappadocia, Pharasa and Silli in east-central Asia Minor.

As mentioned earlier, there are some varieties that exhibit the parallel use of the accusative and the genitive (Manolessou and Beis 2006); in most of these cases, contact between ACC=IO and GEN=IO dialects seems to be the factor behind the parallel use.

1. Mani, Peloponnese: The variety of western inner Mani exhibits the parallel use of gen. and acc. forms in the first and second person and the genitive in every other

domain, as with the rest of Peloponnesian. This variation could be attributed to three possible factors: (i) it could reflect an earlier stage of IO marking with free variation of the two cases, (ii) it could constitute an influence of the syncretic 1st and 2nd person acc/gen.pl *mas/sas* on the acc.sg *me/se*, or (iii) it could reflect contact with the Constantinopolitans (ACC=IO variety) who settled in south-eastern Peloponnese in the 15th c.

2. North-eastern Rhodes and Kastellorizo: Despite the fact that the Dodecanesian varieties are GEN=IO, the north-eastern variety of Rhodes is ACC=IO and there is attestation of some ACC=IO constructions from Kastellorizo. This seems to be the result of settlements from or contact with the neighboring varieties that used to be spoken in Makri and Livisi in south-western Asia Minor (ACC=IO varieties).
3. Siatista (and possibly other Thessalo-Macedonian varieties): Siatista employs genitive IOs for the pronominal clitics but the accusative with NPs. [Manolessou and Beis \(2006, p. 230\)](#) mentioned a structure with a nominal genitive IO, *οὐ ἀντράς τ'ς λέει τ'ς υνάλικας* [*u 'adras ts lej ts in'ekas*] “the husband tells his wife ...”, but this clitic-doubling construction seems to reflect the influence of the case on the case of the noun, as such nominal genitive IOs have not been documented in our data. The origin of this complementary distribution of the two cases is attributed to the Aromanian substratum of the town, but this explanation is not satisfactory because similar structures are not found in other varieties with a possible Aromanian substratum, e.g., Naousa. An alternative explanation would be to attribute this feature to the settlement of speakers of Epirot GEN=IO varieties in the area.

2.3. Dative Alternation in Greek

Although the phenomenon of dative alternation did not exist in AG, the use of *prós* + acc. (and less commonly *eis*) with speech verbs was not uncommon; such prepositional alternatives had a distinct meaning from a dative goal, as they have the literal meaning of saying something towards or when facing someone. Even though the establishment of dative alternation in Greek remains a largely unexplored and poorly understood development, [Georgakopoulos \(2011\)](#) indicated that the grammaticalization of *se* + acc. as an IO marker was not fully established until the EMG period (16th–18th c.).

3. Methodology

3.1. Classification of Structures Inherited from the Ancient Dative in Modern Greek (Expressed by the Genitive in GEN=IO and the Accusative in ACC=IO Dialects)

In this section, we list the structures that we investigated. These comprise the environments inherited by the accusative from the ancient dative, with one exception: the monotransitive structures that originate from dative direct objects, e.g., AG *βοε:θέω*: “help” + dat.; these verbs govern the accusative in most GEN=IO dialects as well, e.g., *βοιθάω τον φίλο μου*.⁵ Another exception is the merger in the IO marking of ditransitives that require a source and a direct object with the prototypical ditransitives that require a goal and a direct object: *CIΓ αἰτέω: sé ti/aitéω: ti parà sū*: “I request something from you” → ACC=IO MG *se zitáo káti* / GEN=IO MG *su zitáo káti*.

The criteria of classifying the structures in question pertain to the valency of the verbs, the argumenthood of the accusatives, and their semantic roles. We looked at the following structures, given in the Table 2 below with the key verbs that exemplify them⁶.

Table 2. Structures and examples.

Class	Examples
1. Goal ditransitives	/đino/ “give”, /leo/ “say”, /stélno/ “send”, /đanízo/ “lend” etc.
2. Source ditransitives	/zitáo/ “ask from”, /krívo/ “hide”, /pérno/ “take from” etc.
3. Benefac-tives/Malefactivities	/ftiáxno/ “make”, /mayirévo/ “cook”, /ayorázo/ “buy” etc.
4. Experiencers	/arési/ “appeals”, /fénome/ “seem” etc.
5. Affected arguments ⁷	/aksízi/ “befits”, /lípi/ “misses”, /ftáni/ “suffices”
6. Comitatives ⁸	/miláo/ “speak (with)”, /miázo/ “look like”, /teriázo/ “match” etc.
7. Motion verbs (goals)	/érxome/ “come”, /epistréfome/ “return”
8. Motion verbs (source)	/ksefévyo/ “escape”, /krívome/ “hide from”, /kseylistráo/ “sneak away”.
9. External possessors/causers	/péfto/ “fall”, /krató/ “hold”, /ponáo/ “hurt”, /spáo/ “break” /kóvome/ “cut”
10. Ethical datives	/filáo/ “kiss” /pandrévome/ “marry”, /steonoxoriéme/ “sadden”, /θimóno/ “get upset”

Thus, the first three classes involve ditransitive verbs whose third argument is a goal (recipient/addressee), source, or even an optional beneficiary or maleficiary⁹. Class four involves classic experiencers of the *piacere* class: e.g., SMG *mu arési* “it appeals to me (=I like)” *mu fénete* “it seems to me”. Class five is slightly similar and involves affected arguments, e.g., SMG *mu aksízi* “I deserve it”. Then, we have a monotransitive class where the internal argument has a comitative meaning and can also alternate with a comitative preposition, e.g., SMG *su miláo/ miláo me séna* “I talk to you/I speak with you”, *mu terjázi/ terjázi me ména* “it fits me”. The next two classes represent two types of motion verbs: ones where the SMG genitive would be a goal, e.g., SMG *mu írthe* to *yráma* “the letter came to me”, and ones where it is a source, e.g., SMG *mu kséfi je* “he/she/it got away from me”. Finally, we have two classes of unselected “high” arguments: external possessors (alienable or inalienable; see (Anagnostopoulou and Sevdali 2020) for extensive argumentation that Greek does not have possessor raising), e.g., SMG *mu ponái* to *cefáli* “my head hurts”, and ethical datives with a diverse range of verbs, e.g., SMG *pi je* *ce* *mu pandréftice* “s/he went and got married (and it affects me)”.

Apart from categorizing these structures, we considered a number of properties that could affect the distribution of the accusatives: (i) differences between nominal phrases and personal pronouns (strong and clitic); (ii) differences between the imperative and other moods; (iii) the possible role of definiteness, number, gender and the distinction between proper and common nouns; (iv) word order; (v) the use of ACC=IO in passive constructions; and (vi) the significance of clitic doubling, namely the grammaticality of an ACC=IO nominal phrase without the presence of a pronominal clitic.

3.2. The Fieldwork

3.2.1. Location, Informants and Limitations

The fieldwork was conducted by Dr. Dionysios Mertiris in Northern Greece from the 1st until the 31st of May, 2019¹⁰. Twenty Northern Greek speakers were interviewed in the Prefectures of Grevena (the city of Grevena and the villages of Rodia, Spileo, and Gilofof) and Kozani (the city of Kozani, the towns of Velvendos and Siatista, and the villages of

Krokos). The vast majority of the informants were elderly, usually the most competent speakers in their community. Younger speakers were interviewed too, but with caution, as their speech is much more likely to have been contaminated from Common Modern Greek. In fact, there are many elderly speakers in both dialect groups whose speech has also been heavily influenced by SMG. In the case of Northern Greek, it is important to note that the phenomenon of “northern vocalism” is highly stigmatized, which prompts its speakers to conceal their dialectal background by adopting the phonology of SMG.

Twenty-one Pontic speakers were interviewed in the Prefectures of Imathia (the village of Nea Nikomidia) and Pieria (the city of Katerini and the village of Nea Trapezounta)¹¹. The speakers of Nea Trapezounta are descended from inhabitants of the Ophis region, whose variety is quite peculiar within the Pontic dialect group. The speakers in Katerini mostly come from the Kotyora/Ordu region (Semen, Fatsa). The speakers of Nea Nikomidia come from the region of Adapazar. Finally, there are two informants who were born in Georgia (Dagva and Gora) and came to Greece in the 1990s after the collapse of the Soviet Union. Regarding the sociolinguistic aspect of our research, it should be kept in mind that there are no longer any first-generation refugees from Asia Minor, which means that the use of Pontic has been much more vulnerable because it has not been spoken in its original environment since the 1920s. Furthermore, the fact that the eastern Asia Minor group of dialects has followed a distinct evolutionary path from the rest of the Greek-speaking world since the 11th c. makes the acquisition of their grammar much more compelling for the younger generations compared to speakers of Northern Greek, which is much closer to SMG and whose communities have not been disrupted in the same way.

3.2.2. Collection of the Data

The data were collected through the use of questionnaires and the recording of narratives and conversation. The questionnaires were based on the structures described in Section 3.1 and took all the different parameters and criteria into consideration. For speakers with few metalinguistic skills, such as speakers of a low educational background and elderly informants, the only option was elicitation through natural conversation involving scenarios that would lead to the relevant structures and the collection of narratives. The interviews with each informant lasted for approximately an hour.

4. Northern Greek

As mentioned earlier, the vast majority of the varieties of this group exhibit “northern vocalism”, i.e., the raising of unstressed /e/, /o/ to /i/, and /u/, and the deletion of unstressed /i/, /u/, e.g., SMG *to korítsi* → NG *tu kuríts* “the girl”. Furthermore, as is the case with most MG dialects, the position of pronominal clitics is always preverbal, apart from imperatives and gerunds, e.g., *tó 'đuka* “I gave it” and *đos tu* “give it!”, while indirect object clitics always precede the direct object ones, e.g., *đos mi tu* “give me that”.

Northern Greek varieties tend to avoid two consecutive accusative singulars of the third person in structures where both the indirect and the direct object clitics are used, e.g., **tun* (M) *tu đínu/ *t'n* (F) *tu đínu*, **tu* (N) *tu đínu* “I give it to him/her/it”; instead, the form *t's* is used for all genders, e.g., *t's tó'đuka* “I give it to him/her/it/them”. The origin of this *t's* could either be attributed to the fem gen.sg [ts] (</tis/) or the acc.pl [ts] that is common for the masculine and the feminine gender [</tus/ (M), </tis/ (F)]. Therefore, this element is ambiguous and possibly also syncretic¹².

4.1. The Data

4.1.1. Goal Ditransitives

As mentioned earlier, these structures involve “prototypical” ditransitive verbs with goals as indirect objects that can have the role of recipient, addressee, or transferee, e.g., *give, say, send, sell, pay, and show*. Table 3 summarizes the major findings¹³.

Table 3. The distribution of the accusative with goal ditransitives in Northern Greek.

CLITICS	<ul style="list-style-type: none"> Regular use of clitics with IO–DO order in clusters: <i>mi tu ḡíni</i> “s/he gives it to me”
UNDOUBLED IO VS. CLITIC DOUBLING	<ul style="list-style-type: none"> Regular use of undoubled IO in all gender combinations: <i>ēḡuka ta piḡjá níró</i> “I gave water to the kids” Regular use of clitic doubling: <i>tun ēḡuka tun patéra m’ tu xartí</i> “I gave the paper to my father”
ALTERNATION	<ul style="list-style-type: none"> Alternation with <i>se</i> “to”: <i>ēḡuka sta piḡjá níró</i> “I gave water to the kids”
PASSIVIZATION	<ul style="list-style-type: none"> A few speakers do not accept the passivization of some prototypical ditransitives: <i>*tun ḡóḡ’ci tu spit’</i> “the house was given to him” For those speakers that accept these structures, the use of undoubled IO DPs is ungrammatical and the presence of clitics is obligatory: <i>*(tun) ḡóḡ’ci tun patéra m’tu spit’</i> “the house was given to my father” Grammatical use of dative alternation: <i>tu spit’ pulíḡ’ci stu patéra m’</i> “the house was sold to my father”

4.1.2. Source Ditransitives

This class involves ditransitive construction in which the IO functions as a source from which the DO is taken or requested. The findings are summarized in the following Table 4.

Table 4. The distribution of the accusative with source ditransitives in Northern Greek.

CLITICS	<ul style="list-style-type: none"> Regular use of clitics with IO–DO order in clusters: <i>mi tu xálipsi</i> “s/he asked me for it”
UNDOUBLED IO VS. CLITIC DOUBLING	<ul style="list-style-type: none"> Regular use of clitic doubling: <i>tun xálipsa paráḡis tun patéra m’</i> “I asked my father for money” Ungrammatical use of undoubled IO DPs as sources in structures with DO NPs: <i>*(tun) xálipsa tun patéra m’ paráḡis</i> “I asked my father for money” Grammatical use of undoubled IO DPs as sources in structures with a complement clause as the DO: <i>xálipsa tun patéra m’ na mi ḡoc’ paráḡis</i> “I asked my father to give me money”
ALTERNATION	<ul style="list-style-type: none"> Alternation with <i>apó</i> “from”: <i>xálipsa ap’ tun patéra m’ paráḡis</i> “I asked for money from my father”
PASSIVIZATION	<ul style="list-style-type: none"> Ungrammatical passivization: <i>*tun xaléf’kan pulí paráḡis</i> “a lot of money was asked from him”

So far, the two types of ditransitives seem to behave quite similarly within this variety apart from the limitation of undoubled IOs.

4.1.3. IO-like Benefactives/Malefactives

Following Michelioudakis’ (2012) distinction between IO-like benefactives/malefactives and “free” benefactives/malefactives, this section presents the findings from transitive verbs that can have optional IO-like accusatives, e.g., *buy*, *cook*, and *make*, corresponding to the first type. We discuss “free” benefactives as part of the ethical datives class. (Table 5).

Table 5. The distribution of the accusative as an IO-like benefactive/malefactive in Northern Greek.

CLITICS	<ul style="list-style-type: none"> Regular use of clitics with IO–DO order in clusters: <i>mi tu éfcasi</i> “s/he made it for me”
UNDOUBLED IO VS. CLITIC DOUBLING	<ul style="list-style-type: none"> Regular use of undoubled IO DPs: <i>éfcasa t’ mána m’ kafé</i> “I made coffee for my mother” Regular use of clitic doubling: <i>t’ n éfcasa t’ mána m’ kafé</i> “I made coffee for my mother”
ALTERNATION	<ul style="list-style-type: none"> Alternation with <i>ja</i> ‘for’ /<i>se</i> ‘to’, e.g., <i>éfcasa kafé st’ /ja t’ mána m’</i> “I made coffee for my mother”
PASSIVIZATION	<ul style="list-style-type: none"> Ungrammatical passivization, e.g., <i>*tun fcáx’ci u kafés</i> “He was made a coffee”

4.1.4. Experiencers

This section involves the *piacere* types of verbs: *arézu* “appeal” / *fénumi* “seem” (Table 6).

Table 6. The distribution of the accusative with experiencers in Northern Greek.

CLITICS	<ul style="list-style-type: none"> Regular use of clitics: <i>tun aréz’ na m’ lái pulí</i> “he likes to talk a lot” <i>tun aréz’ tu krasí</i> “he likes wine”
UNDOUBLED IO VS. CLITIC DOUBLING	<ul style="list-style-type: none"> Some speakers do not accept the use of undoubled IO DPs: <i>*aréz’ tun patéra m’ na m’ lái pulí</i> “my father likes to talk a lot” <i>*aréz’ tun patéra m’ tu krasí</i> “he likes wine” For those that accept undoubled IO DPs the preverbal position of the NP and the appropriate focus-signaling intonation plays an important role: <i>tun patéra m’ aréz’ na m’ lái pulí, óci t’ mána m’</i> “my father likes to talk a lot, not my mother” <i>tun patéra m’ aréz’ tu krasí, óci t’ mána m’</i> “my father likes the wine a lot, not my mother” Regular use of clitic doubling: <i>tun aréz’ tun patéra m’ na m’ lái pulí</i> “my father likes to talk a lot” <i>tun aréz’ tun patéra m’ tu krasí</i> “my father likes wine”
ALTERNATION	<ul style="list-style-type: none"> Alternation with <i>se</i> “to”: <i>stu batera m’ aréz’ na m’ lái pulí</i> “my father likes to talk a lot” <i>stu batera m’ aréz’ tu krasí</i> “my father likes wine” A small number of speakers do not accept dative alternation for this type of verbs
PASSIVIZATION	<ul style="list-style-type: none"> Not applicable

4.1.5. Affected Arguments

In this section, we see the behavior of affected arguments that often accompany unaccusatives in Greek. Semantically, they are quite similar to experiencers above (Table 7).

Table 7. The distribution of affected argument in Northern Greek.

CLITICS	<ul style="list-style-type: none"> Regular use of clitics: <i>tun líp’ni ta piðjá t’</i> “he misses his kids”
UNDOUBLED IO VS. CLITIC DOUBLING	<ul style="list-style-type: none"> Ungrammatical undoubled IO DPs: <i>*líp’ni tun θço m’ ta piðjá t’</i> “my uncle misses his kids” Obligatory use of clitic doubling: <i>tun líp’ni tun θço m’ ta piðjá t’</i> “my uncle misses his kids”
ALTERNATION	<ul style="list-style-type: none"> Alternation with <i>se</i> “to”: <i>lip’ni stun θço m’ ta piðjá t’</i> “my uncle misses his kids”
PASSIVIZATION	<ul style="list-style-type: none"> Not applicable

4.1.6. Comitatives

This class also involves a small number of verbs, namely *m'láu* “talk” and *terjázu* “match/fit” that exhibit the comitative alternation with *me* “with” (Table 8).

Table 8. The distribution of comitatives in Northern Greek.

CLITICS	<ul style="list-style-type: none"> Regular use of clitics: <i>tun míltsa ja t's parádis</i> “I talked to him about the money”
UNDOUBLED IO VS. CLITIC DOUBLING	<ul style="list-style-type: none"> Regular use of undoubled IO DPs: <i>míltsa t' mána m' ja t's parádis</i> “I talked to my mother about the money” Regular use of clitic doubling: <i>t' míltsa t' mána m' ja t's parádis</i> “I talked to my mother about the money”
ALTERNATION	<ul style="list-style-type: none"> Alternation with <i>me</i> “with”/se “to”: <i>míltsa mi t' mána m' ja t's parádis/míltsa st' mána m' ja t's parádis</i> “I spoke with/talked to my mother about the money”
PASSIVIZATION	<ul style="list-style-type: none"> Not applicable

4.1.7. Motion Verbs with Goals

This class involves some slightly idiomatic Greek structures of the kind “the letter came to me” in which the goal argument is genitive in SMG but accusative in Northern Greek (Table 9).

Table 9. The distribution of the accusative as a goal with motion verbs in Northern Greek.

CLITICS	<ul style="list-style-type: none"> Regular use of clitics: <i>tun írθi tu yráma</i> “the letter came to him”
UNDOUBLED IO VS. CLITIC DOUBLING	<ul style="list-style-type: none"> Ungrammatical undoubled IO DPs: <i>*írθi tun patéra m' tu yráma</i> “the letter came to my father” Obligatory use of clitic doubling: <i>tun írθi tun patéra m' tu yráma</i> “the letter came to my father”
ALTERNATION	<ul style="list-style-type: none"> Alternation with <i>se</i> “to”: <i>írθi stu batéra m' tu yráma</i> “the letter came to my father”
PASSIVIZATION	<ul style="list-style-type: none"> Not applicable

4.1.8. Motion Verbs with Sources

Mirroring the just-discussed construction, the verb in this type again signals some kind of motion, but the accusative argument in Northern Greek (genitive in SMG) has a meaning of the sort expressed by the English preposition “from” (Table 10).

Table 10. The distribution of the accusative as a source with motion verbs in Northern Greek.

CLITICS	<ul style="list-style-type: none"> Regular use of clitics: <i>tun kséfii tu k'nup'</i> “the mosquito got away from him”
UNDOUBLED IO VS. CLITIC DOUBLING	<ul style="list-style-type: none"> Ungrammatical use of undoubled IO DPs: <i>*kséfii tu k'nup' tun ađirfó m'</i> “the mosquito got away from my brother” Obligatory use of clitic doubling: <i>tun kséfii tu k'nup' tun ađirfó m'</i> “the mosquito got away from my brother”
ALTERNATION	<ul style="list-style-type: none"> Alternation with <i>apo</i> “from”: <i>kséfii tu k'nup' p' tun ađirfó m'</i> “the mosquito got away from my brother”
PASSIVIZATION	<ul style="list-style-type: none"> Not applicable

4.1.9. External Possessors

In this section, we present the behavior of external possessors (Deal 2017). In these structures, an argument appears in a “high” IO-like position next to the verb while simultaneously signaling the possessor of the internal argument (and can also appear DP-internally) (Table 11).

Table 11. The distribution of the accusative as an external possessor in Northern Greek.

CLITICS	<ul style="list-style-type: none"> Regular use of clitics: <i>tun épisi tu putír’</i> “he dropped the glass” <i>tun punái tu cifál’</i> “his head hurts”
UNDOUBLED IO VS. CLITIC DOUBLING	<ul style="list-style-type: none"> Ungrammatical use of undoubled IO DPs: <i>*épisi tun patéra m’ tu putír’</i> “my father dropped the glass” <i>*punái tun patéra m’ tu cifál’</i> “my father’s head hurts” Obligatory use of clitic doubling: <i>tun épisi tun patéra m’ tu putír’</i> “My father dropped the glass” <i>*tun punái tun patéra m’ tu cifál’</i> “my father’s head hurts”
ALTERNATION	<ul style="list-style-type: none"> Not applicable
PASSIVIZATION	<ul style="list-style-type: none"> Not applicable

4.1.10. Ethical Datives

Finally, we present the distribution and behavior of ethical datives. These elements, again genitive in SMG but accusative in Northern Greek, are necessarily clitics and can be defined as discourse participants with some evaluative attitude towards the event denoted by the verb, not affecting the truth conditions of the event itself (Michelioudakis and Kapogianni 2013) (Table 12).

Table 12. The distribution of the accusative as an ethical dative in Northern Greek.

CLITICS	<ul style="list-style-type: none"> As in SMG, only the first and second person clitics can be used with ethical datives: <i>píji ci mi padréf’ci</i> “he went and got married (and this is affecting me)”
UNDOUBLED IO VS. CLITIC DOUBLING	<ul style="list-style-type: none"> Not applicable
ALTERNATION	<ul style="list-style-type: none"> Not applicable
PASSIVIZATION	<ul style="list-style-type: none"> Not applicable

Similar behavior to these ethical datives is displayed by so-called “free” benefactives/malefactives such as the ones discussed by Michelioudakis (2012), e.g., *tun filtsi tun patéra t’ ta piðjá* “he kissed the kids on his father’s behalf”. As these cases are semantically very close to the ethical datives above and were not systematically tested with a wide array of verbs, we report them as part of this category and do not include a separate one.

4.2. Summary

To sum up our findings for Northern Greek, the doubling of the DP with a clitic is optional for goal IOs (with ditransitives), IO-like beneficiaries/maleficiaries, and goals with a comitative alternation. Sources with ditransitives and experiencers without doubling are not accepted by all speakers, and the optionality of the clitics depends on intonation (for experiencers) and the nature of the structure (a complement clause as a DO is accepted for sources). The doubling of the DP with the clitics is obligatory with goals and sources of intransitives and raised possessors. Ethical datives can only function with a first and a second person clitic, similarly to SMG (cf. Michelioudakis and Kapogianni 2013). For every type of construction, there is “dative alternation” with prepositional phrases apart from

external possessors and ethical datives. Therefore, perhaps the most important finding here is that Northern Greek employs obligatory clitic doubling to license a series of structures that would otherwise be ungrammatical. We now move to Pontic, which presents a radically different picture.

5. Pontic

The dialects of eastern Asia Minor bear many differences to the dialect groups of continental Greece, the islands, and western Asia Minor due to the disruption of the Greek-speaking continuum in Anatolia caused by the Turkish conquest of the region in the 11th c. Thus, there are three major features unique to Pontic that are relevant for our topic: (i) the order of weak pronominal clitics is always postverbal without any exceptions (Chatzikyriakidis 2010; Karatsareas 2011, among many others), (ii) third person clitic clusters are ungrammatical¹⁴, and (iii) the personal pronominal system has followed a distinct evolutionary path because it is much more complicated, featuring dissyllabic clitics and even innovative forms that consist only of a single phoneme¹⁵. The following Table 13 taken from the work of Chatzikyriakidis (2010, p. 235) illustrates the pronominal paradigm of Pontic accusative clitics without explicitly distinguishing weak forms from clitics.

Table 13. Pontic Greek accusative clitic forms.

	1st Person	2nd Person	3rd Masculine	3rd Feminine	3rd Neuter
Singular	<i>eme(n)</i>	<i>ese(n)</i>		<i>aten</i>	<i>at(o)</i>
	<i>em</i>	<i>es</i>	<i>aton</i>	<i>atine(n)</i>	<i>a(t)</i>
	<i>me(n)</i>	<i>se(n)</i>	<i>æton</i>	<i>æten</i>	<i>æto</i>
	<i>m</i>	<i>s</i>		<i>ætine(n)</i>	<i>æ(t)</i>
Plural	<i>ema(s)</i>	<i>esa(s)</i>	<i>ats</i>	<i>ats</i>	<i>ata</i>
	<i>emasen(e)</i>	<i>esasen(e)</i>	<i>atsen(e)</i>	<i>atsen(e)</i>	<i>a</i>
	<i>ma(s)</i>	<i>sa(s)</i>	<i>æts</i>	<i>æts</i>	<i>æta</i>
	<i>masen(e)</i>	<i>sasen(e)</i>	<i>ætsen(e)</i>	<i>ætsen(e)</i>	<i>æ</i>

5.1. The Data

Given that we discussed the structures in some detail in the previous section, we now simply include the relevant tables that illustrate the situation in Pontic without any additional discussion of each category.

5.1.1. Goal Ditransitive

As with NG above, variation with respect to word order and number/gender/definiteness does not seem to play a role in the acceptability of any structures, although there is a preference for IO-DO structures and definite IOs. This is also the case with source ditransitives in Section 5.1.2 and benefactives/malefactives in Section 5.1.3 (Table 14).

Table 14. The distribution of the accusative with goal ditransitives in Pontic Greek.

CLITICS	<ul style="list-style-type: none"> Strict IO–DO order of clitics: <i>ðos m' a</i> “give it to me”
UNDOUBLED IO VS. CLITIC DOUBLING	<ul style="list-style-type: none"> Regular use of undoubled IO DPs: <i>eðeka ta peðia neró</i> “I gave the kids water” Ungrammatical clitic doubling: <i>*eðeka ata ta peðia neró</i> “I gave the kids water”
ALTERNATION	<ul style="list-style-type: none"> Alternation with <i>se</i> “to”: <i>eðeka sa peðia neró</i> “I gave water to the kids”
PASSIVIZATION	<ul style="list-style-type: none"> Ungrammatical passivization for most speakers: <i>*eðóthe me neró</i> “water was given to me” For those speakers that accepted passivization, only clitics were allowed, e.g., <i>eðóthe me neró</i> “water was given to me”

5.1.2. Source Ditransitive

Table 15 summarizes our findings on the use of the accusative as a source in ditransitive constructions in Pontic Greek.

Table 15. The distribution of the accusative with source ditransitives in Pontic Greek.

CLITICS	<ul style="list-style-type: none"> • Strict IO–DO order: <i>epsaláfesa s' ato</i> “I asked you for it”
UNDOUBLED IO VS. CLITIC DOUBLING	<ul style="list-style-type: none"> • Undoubled IO DPs (acceptable by some speakers only, in some varieties): <i>epsaláfesa ti mána m' paráðes</i> “I asked my mother for money” • Grammatical use of undoubled IO DPs as sources when the DO is a clause: <i>epsaláfeses ti mána s' na ðíji se paráðes</i> “you asked your mother to give you money” • Ungrammatical clitic doubling: *<i>epsaláfesa aten ti mána m' paráðes</i> “I asked my mother for money”
ALTERNATION	<ul style="list-style-type: none"> • Alternation with <i>as</i> “from”: <i>epsaláfesa paráðes ason Jáne</i> “I asked money from John”
PASSIVIZATION	<ul style="list-style-type: none"> • Ungrammatical passivization: *<i>epsaláféthan aton/ton Jáne paráðes</i> “money was asked from him/from John”

What we see so far is that the different forms of the Pontic pronominal system, clitics included, have direct effects on the non-availability of clitic doubling, as previously shown to extensively exist in Northern Greek varieties. We will return to this in our analysis.

5.1.3. IO-like Benefactives/Malefactives

Table 16 summarizes our findings on the use of the accusative as a benefactive/malefactive in ditransitive constructions in Pontic Greek.

Table 16. The distribution of the accusative an IO-like benefactive/malefactive in Pontic Greek.

CLITICS	<ul style="list-style-type: none"> • Strict IO–DO order: <i>epíka s' ato</i> “I made it for you”
UNDOUBLED IO VS. CLITIC DOUBLING	<ul style="list-style-type: none"> • Obligatory use of undoubled IO DPs: <i>epíka ton popá fústoro</i> “I made omelet for the priest” • Ungrammatical clitic doubling: *<i>epíka aton ton popá fústoro</i> “I made omelet for the priest”
ALTERNATION	<ul style="list-style-type: none"> • Alternation with <i>se</i> “to”/ <i>ja</i> “for”: <i>Epíka fústoro ja/son popá</i> “I made omelet for/to the priest”
PASSIVIZATION	<ul style="list-style-type: none"> • Ungrammatical passivization: *<i>epíthe aton fústoro</i> “omelet was made for him”

5.1.4. Experiencers

This class is quite complicated, as not all varieties possess a *piacere* type and a few of them have replaced the verb *arézo* “appeal” and synonyms with transitive constructions, cf. *eréxkome* (<AG *orégomai*), e.g., *eréxkete tin kalatjí* “s/he likes the speech (i.e., to talk a lot)”¹⁶ (Table 17).

5.1.5. Affected Arguments

Table 18 summarizes our findings on the use of the accusative as an affected argument in Pontic Greek.

5.1.6. Comitatives

Table 19 summarizes our findings on the use of the accusative as a goal with a comitative alternation in Pontic Greek.

Table 17. The distribution of the accusative as an experiencer in Pontic Greek.

CLITICS	<ul style="list-style-type: none"> Regular use of clitics: <i>aréz' aton na kalatšév' "he likes to talk"</i> <i>arézi aton i kalatši "he likes talking"</i>
UNDOUBLED IO VS. CLITIC DOUBLING	<ul style="list-style-type: none"> Undoubled IO DPs (some speakers only): <i>aréz' ton popá na kalatšév' "the priest likes to talk"</i> <i>aréz' ton popá i kalatši "the priest likes talking"</i> Ungrammatical clitic doubling: <i>*aréz' aton ton popá na kalatšév' "the priest likes to talk"</i> <i>*aréz' ton popá i kalatši "the priest likes talking"</i>
ALTERNATION	<ul style="list-style-type: none"> Alternation with <i>se "to"</i>: <i>aréz' son popá na kalatšév' "the priest likes to talk"</i> <i>aréz' son popá i kalatši "the priest likes talking"</i>
PASSIVIZATION	<ul style="list-style-type: none"> Not applicable

Table 18. The distribution of the accusative as an affected argument in Pontic Greek.

CLITICS	<ul style="list-style-type: none"> Regular use of clitics: <i>ci kaníte me to faí "the food is not enough for me"</i>
UNDOUBLED IO VS. CLITIC DOUBLING	<ul style="list-style-type: none"> Ungrammatical use of undoubled IO DPs for most speakers. However, some speakers of Ophis accept some specific verbs: <i>éksize ton Vasíli na en próedros "Vasilis deserved to be the president"</i> Ungrammatical clitic doubling: <i>*éksize aton ton Vasíli na en próedros "Vasilis deserved to be the president"</i>
ALTERNATION	<ul style="list-style-type: none"> Alternation with <i>se "to"</i> (not accepted by all speakers): <i>ci kaníte son popá to faí "the food is not enough for the priest"</i>
PASSIVIZATION	<ul style="list-style-type: none"> Not applicable

Table 19. The distribution of comitative accusatives in Pontic Greek.

CLITICS	<ul style="list-style-type: none"> Regular use of clitics: <i>emæz' aton "s/he looks like him"</i>
UNDOUBLED IO VS. CLITIC DOUBLING	<ul style="list-style-type: none"> Obligatory use of undoubled IO DPs: <i>emæz' ti mánan at' "he looks like his mother"</i> Ungrammatical clitic doubling: <i>*emæz' aten ti mánan at' "he looks like his mother"</i>
ALTERNATION	<ul style="list-style-type: none"> Alternation with <i>me "with" / se "to"</i>, even though some speakers did not accept <i>se</i>: <i>emæz' me ti mánan at' "he looks like his mother"</i>
PASSIVIZATION	<ul style="list-style-type: none"> Not applicable

5.1.7. Motion Verbs (Goal)

Table 20 summarizes our findings on the use of the accusative as a goal with motion verbs in Pontic Greek.

Table 20. The distribution of the accusative as a goal with motion verbs in Pontic Greek.

CLITICS	<ul style="list-style-type: none"> Regular use of clitics: <i>érthe me to yráma "the letter came to me"</i>
UNDOUBLED IO VS. CLITIC DOUBLING	<ul style="list-style-type: none"> Ungrammatical undoubled IO DPs: <i>*érthe ton Jáne to yráma "the letter came to John"</i> Ungrammatical clitic doubling: <i>*érthe aton ton Jáne to yráma "the letter came to John"</i>
ALTERNATION	<ul style="list-style-type: none"> Alternation with <i>se "to"</i>: <i>érthe son Jáne to yráma "the letter came to John"</i>
PASSIVIZATION	<ul style="list-style-type: none"> Not applicable

5.1.8. Motion Verbs (Sources)

Table 21 summarizes our findings on the use of the accusative as a source with motion verbs in Pontic Greek.

Table 21. The distribution of the accusative as a source with motion verbs in Pontic Greek.

CLITICS	<ul style="list-style-type: none"> Regular use of clitics (not accepted by all speakers): <i>*éfié' ton to kunúp'</i> "the mosquito got away from him"
UNDOUBLED IO VS. CLITIC DOUBLING	<ul style="list-style-type: none"> Ungrammatical undoubled IO DPs: <i>*éfié ton Jáne to kunúp'</i> "the mosquito got away from John" Ungrammatical clitic doubling: <i>*éfié'ton ton Jáne to kunúp'</i>
ALTERNATION	<ul style="list-style-type: none"> Alternation with <i>as</i> "from": <i>éfié ason Jáne to kunúp'</i> "the mosquito got away from John"
PASSIVIZATION	<ul style="list-style-type: none"> Not applicable

5.1.9. External Possessors

Table 22 summarizes our findings on the use of the accusative as an external possessor in Pontic Greek.

Table 22. The distribution of the accusative as an external possessor in Pontic Greek.

CLITICS	<ul style="list-style-type: none"> Ungrammatical use of clitics: <i>*erúkse me to potír'</i> "I dropped the glass" <i>*poní aton to cifál'</i> "His head hurts"
UNDOUBLED IO VS. CLITIC DOUBLING	<ul style="list-style-type: none"> Not applicable
ALTERNATION	<ul style="list-style-type: none"> Not applicable
PASSIVIZATION	<ul style="list-style-type: none"> Not applicable

The alternative to external possessors is of course DP-internal possessors, equivalent to the SMG *épese to potíri tu* "He dropped his glass": e.g., *erúkse to potíri m'* "my glass fell" and *poní to cifálin at'* "his head hurts".

5.1.10. Ethical Datives

Table 23 summarizes our findings on the use of the accusative as an ethical dative in Pontic Greek.

Table 23. The distribution of the accusative as an ethical dative in Pontic Greek.

CLITICS	<ul style="list-style-type: none"> Ungrammatical use of clitics <i>*epandréfte me</i> "s/he got married and it affects me"
UNDOUBLED IO VS. CLITIC DOUBLING	<ul style="list-style-type: none"> Not applicable
ALTERNATION	<ul style="list-style-type: none"> Not applicable
PASSIVIZATION	<ul style="list-style-type: none"> Not applicable

5.2. Summary

Descriptively, we see that Pontic has a number of striking differences from Northern Greek: in terms of form, Pontic clitics are clearly reduced pronouns and are not morphologically identical to determiners; in terms of clitic placement rules, they are always enclitic and do not seem to show evidence for proclisis vs. enclisis depending on the context. These

two properties correlate with a number of syntactic properties that are of interest to us here. Specifically, these forms do not allow for clitic doubling throughout and they cannot function as external possessors and ethical datives. Notice that unlike other varieties of Greek that permit DO–IO orders in environments of enclisis (imperatives and gerunds), Pontic Greek strictly displays IO–DO orders. As a result of this, Pontic does not have ethical dative constructions and only has DP-internal possessors, and to the extent that it can add benefactives to monotransitives, it necessarily uses -Ps, which have been argued to qualify clearly as adjuncts by [Anagnostopoulou \(2003\)](#).

6. Discussion

6.1. Empirical Generalizations, Previous Analyses

The following table provides a snapshot of all the structures we investigated across both varieties¹⁷.

From the data presented in this paper, we can formulate the following empirical generalizations:

- a. Goal, source, and benefactive/malefactive ditransitives, which we may call prototypical ditransitives, behave alike in both varieties.
- b. Clitic doubling is an extensively employed strategy in Northern Greek (but not across the board) and is entirely absent from Pontic.
- c. Clitic doubling in NG is obligatory in all NP-movement environments and optional in transitive environments, i.e., ditransitive structures and comitatives, exactly as in SMG in accordance with the generalization by [Anagnostopoulou \(2003\)](#).
- d. Pontic, which always has enclitics, differs from NG and SMG in always having a strict IO–DO order with clitics in the three prototypical environments that feature two clitics (ditransitives). In contrast, NG and SMG are allowed to switch the order of clitics from IO–DO to DO–IO in the contexts of enclisis (imperatives and gerunds; see the work of [Terzi 1999](#) for theoretical discussion).
- e. Pontic has a much more extensive use of prepositional alternations, not only with the predictable cases of goal and source ditransitives and benefactives/malefactives but also with experiencers as does SMG ([Anagnostopoulou 1999](#)).
- f. Ethical datives and external possessors consistently pattern together and set the two varieties apart (cf. [Oikonomou et al. 2021](#), for relevant acquisition evidence). Pontic seems *not* to be able to license high arguments in these two structures.

6.2. Previous Literature

There is little previous literature that deals with these accusatives in the two varieties that we have discussed. [Dimitriadis \(1999\)](#) examined the distribution of accusative IOs in the variety of SMG spoken in Northern Greece but primarily in Thessaloniki and other urban centers. According to Dimitriadis, clitics are obligatory for every type of construction, including ditransitive goals ([Dimitriadis 1999](#), p. 100). To the extent that his description is indeed about the same variety as ours, it seems to report different patterns in terms of how pervasive and obligatory clitic doubling is. It is possible that he was describing a different variety, however, since he reported data from Thessaloniki while we collected data from Grevena and Kozani. [Anagnostopoulou \(2017\)](#) discussed the distribution of indirect object accusative clitics in NG goal ditransitives and the corresponding passives on the basis of data drawn from three consultants from the Thessaloniki area. She argued that in order to explain their distribution in both ditransitives and passives, we need to consider certain dissimilation processes reminiscent of the “spurious *se* rule” in Spanish ([Bonet 1991](#); [Nevins 2007](#)), preventing an accusative third person IO from co-occurring with an accusative third person DO, clitic, or definite DP, which are not allowed to surface; this leads to the choice of SMG genitive–accusative/nominative realization. In passives and unaccusatives, an accusative clitic IO cannot be used as an escape strategy to license the NP-movement of the DO, in contrast to SMG. [Anagnostopoulou](#) called this effect “a strong intervention effect” and argued that it has nothing to do with locality. This can be seen if

we choose to combine a first/second person accusative IO with a third person accusative DO, clitic, or definite DP that is well-formed. Anagnostopoulou argued that the reason for the ungrammaticality of the third person clitic accusative IO is once again the dissimilation effect of the type found in active sentences described above. We did not find such effects in our data, presumably suggesting that the dialect we are describing is indeed different from the dialect described by Dimitriadis (1999) and Anagnostopoulou (2017). Notice that the phonology of the accusative clitics in the two dialects described is also different.

Michelioudakis and Sitaridou (2012) examined the distribution of accusatives in the place of the Ancient Greek dative in three Pontic varieties: Romeyka of Sürmene, Romeyka of Of, and Northern Pontic Greek, the last also being our own focus. The first two varieties are both spoken in Turkey and, as far as we can see from both our work and the work of Michelioudakis and Sitaridou, they are quite distinct from the Pontic Greek spoken in Greece. They reported that in all three investigated Pontic varieties, the clitic movement of the dative argument, which is obligatory in SMG, is not required in unaccusatives and passives, thus indicating that the case feature in these varieties is such that it does not cause any intervention effects, i.e., it is purely inherent case. Their main proposal was that morphological accusative in Pontic Greek (but not in the other two varieties) is interpretable case inactive for Agree. Our findings are different from the findings of Michelioudakis and Sitaridou, as shown in Table 24. Crucially, an undoubled DP is licensed in transitive sentences (goal, source and benefactive/malefactive ditransitives, and comitatives) and is ungrammatical in NP-movement environments (affected with “miss” verbs, motion with goals and sources). It is only with experiencers that some speakers behave as Michelioudakis and Sitaridou described, as other speakers treat these verbs similarly to the other unaccusative verbs. On the basis of this observation, we can conclude that dialect that we are describing does have the intervention effect described by Anagnostopoulou (2003, 2017) with all unaccusative verbs, except for experiencer verbs for some speakers. Those speakers seem to have the pattern characterized by Michelioudakis and Sitaridou. On this view, full DPs are excluded in our dialect because they block the relationship between the nominative theme and T, i.e., they cause an intervention effect, and clitics are allowed because they move to the clitic site, ceasing to be interveners. The other important part of the story is that Pontic clitics are crucially distinct from NG clitics on two counts. They are not of the type that undergoes clitic doubling and they consequently cannot serve as escape hatches for intervention. Therefore, the only way to license these constructions is by resorting to the PP structure where the PP argument is merged below the nominative argument. Moreover, this seems to correlate with the fact that Pontic lacks the type of clitic that licenses high datives. We return to all these observations in the next section.

Table 24. Comparison between Northern and Pontic Greek data.

		Northern Greek					Pontic Greek				
		Clitic	Undoubl. DP	Cl. Doubl	PP alt	Pass/on	Clitic	Undoubl. DP	Cl. Doubl	PP alt	Pass/on
1.	Goals Ditrans “give”	✓	✓	✓	✓	✓ *U-DP	✓ Strict order	✓	✗	✓	✗
2.	Sources Ditrans “ask”	✓	DO=CP ✓/DO=DP✗	✓	✓	✗	✓ Strict order	DO=CP ✓/DO=DP✗	✗	✓	✗
3.	IO Ben/Mal “make for”	✓	✓	✓	✓	✗	✓ Strict order	✓	✗	✓	✗
4.	Experiencers “like”	✓	✗	✓	✓	–	✓	✓/✗	✗	✓	–

Table 24. Cont.

Northern Greek						Pontic Greek				
	Clitic	Undoubl. DP	Cl. Doubl	PP alt	Pass/on	Clitic	Undoubl. DP	CL. Doubl	PP alt	Pass/on
5. Affected “miss”	✓	✗	✓	✓	–	✓	✗	✗	✓	–
6. Comitatives “speak (with)”	✓	✓	✓	✓	–	✓	✓	✗	✓	–
7. Motion goal “come”	✓	✗	✓	✓	–	✓	✗	✗	✓	–
8. Motion source “escape”	✓	✗	✓	✓	–	✓	✗	✗	✓	–
9. External Possessors	✓	✗	✓	–	–	✗	–	–	–	–
10. Ethical datives	✓	–	–	–	–	✗	–	–	–	–

6.3. Towards an Analysis

Starting with NG, the first issue we should discuss is the obligatoriness of clitic doubling in NP-movement environments. As we have already mentioned, this is reminiscent of the obligatoriness of clitic doubling with passives and unaccusatives in SMG, as proposed by Anagnostopoulou (2003). In that work, Anagnostopoulou proposed that clitic doubling is a device for arguments to obviate locality effects and thus does not count as interveners allowing for the movement of DO to subject position across an IO (Anagnostopoulou 2003, pp. 29–30, her examples (31a), and (33)):

- (6) ?**To violio* *charistike* *tis Marias*
 The book-NOM award-Nact the Maria-GEN
apo *ton Petro*
 from the Petros
 “?The book was awarded Mary by Peter”
- (7) *To* *violio* *tis* *charistike* *(tis Marias)*
 The book-NOM Cl-GEN award-Nact the Maria-GEN
 “The book was awarded to Mary”

According to Anagnostopoulou (2003), clitic doubling is obligatory in environments in which the lower DO/theme argument must enter Agree with T across a dative intervener. In those environments, clitic doubling serves to remove the offending features that block the relationship between T and the DO/theme. This can account for the NG paradigm with one caveat, namely that doubling with source arguments is obligatory when the lower DO surfaces as a DP in transitive structures. This cannot be dealt with in terms of Anagnostopoulou’s generalization and seems to suggest that there is some other reason, possibly case-related, for the presence of the clitic. For these particular cases, what seems to be going on is that the two DP arguments bearing accusative morphology are competing for licensing by the verb. The verb licenses the lower DO argument, and the higher one cannot be licensed unless there is a clitic in the structure. Once the lower DO is a CP that does not need licensing from the verb, the verb is allowed to license the higher DO and doubling is not obligatory. This kind of situation is the one described by Dimitriadis (1999) for his dialect, and he in fact proposed that it should be expressed in terms of abstract case. One way of implementing this would be to say that this type of clitic is a functional element added on the extended projection of the verb in order to license the IO, thus having the syntax proposed by Sportiche (1996) (cf. also recent work by (Angelopoulos and Sportiche 2021)) or Demonte (1995) and Cuervo (2003)). Assuming that there is a continuum for this phenomenon between Kozani/Grevena NG and Thessaloniki NG (as described by Dimitriadis) and also assuming that the dialect we are describing is more conservative than the urban variety that Dimitriadis describes, we could take this to indicate that this type of licensing we are describing starts from source arguments and then generalizes to goal and

benefactive arguments. More needs to be said about this issue, but at present, we will leave it at that. On the other hand, the kind of clitic doubling found in SMG is to be analyzed along the lines of the work of [Anagnostopoulou \(2003\)](#), [Nevins \(2011\)](#), [Preminger \(2019\)](#), and others, namely that the doubling clitic starts out as part of the doubled DP.

As a matter of fact, up to and including class 8 in Table 24, the distribution of clitics and DPs in the two varieties discussed here, NG and Pontic, falls out from the basic analysis presented by [Anagnostopoulou \(2003\)](#), except that this applies to both simple cliticization construction and clitic doubling in NG while it is limited to simple cliticization in Pontic because this variety lacks doubling.

The important refinements revealed by the data for an [Anagnostopoulou \(2003\)](#)-based picture are twofold: (a) if Anagnostopoulou was correct about the locality issue, then Pontic shows that even clitics of the Pontic type undergo the type of movement that allows them to cease to be interveners, i.e., they move to a position that does not block Agree between T and the lower argument. Nevertheless, these clitics do not have the ability to form a clitic-doubling chain, and they therefore cannot serve as escape hatches for (clitic-doubled) DPs. As a result, the only way for a DP to be licensed in this structure is if it is embedded inside a PP; (b) if Pontic and NG work in a parallel way, then they show that Anagnostopoulou was not correct in assuming that all instances of obligatory clitic doubling fall out from a locality account. Crucially, external possessors and ethical datives can only be licensed by determiner clitics of the NG/SMG type, which have to be analyzed along the lines of Sportiche/Demonte/Cuervo, i.e., as a functional head in the extended projection of *v* and not as a head in the extended projection of the noun. It is for this reason that Pontic has no way to license these constructions. This means that the determiner-like identity of a clitic allows it to perform two functions: (a) to head a clitic-doubling chain and (b) to license “high” applicative arguments of the external possessive/ethical dative type. For ethical datives of the perspective type, it is expected that Anagnostopoulou’s generalization is inapplicable since these elements are not arguments of the verb and originate very high. Crucially, the same type of analysis needs to be adopted for external possessors, which must be concluded to be very high—even externally to Voice, as proposed by [Bosse et al. \(2012\)](#). This seems to lead to a mixed theory of what determiner clitics are: some determiner clitics are actual determiners undergoing special clitic placement rules, and some other determiner clitics are functional heads. Crucially, the Pontic clitics are neither. In a theory such as Distributed Morphology, where clitics are exponents of sets of *phi*-features inserted in particular contexts, there is nothing problematic in taking determiner clitics as exponents for elements bearing D and *phi*-features that can be inserted either in nominal extended projections or in verbal/clausal extended projections; this could explain why clitics have a double function in languages such as SMG and NG, sometimes qualifying as determiners and sometimes qualifying as functional heads. The deeper question is what guides the distribution in the two environments, and the answer seems to be that arguments merged in a very high position, outside the verbal domain, even above Voice can only be introduced by the addition of D/*phi* features in the functional domain, resulting in Sportiche’s clitic Voice projections. For the “low” applicative arguments, i.e., the ones that are inserted below Voice, given that they are optional in active sentences and obligatory in defective intervention environments, we must assume from this distribution that they are merged in the extended nominal domain or else we miss this generalization concerning their distribution.

Finally, turning now to the exact nature of Pontic pronouns, we can immediately see that this variety presents mixed evidence for clitic-hood. On the one hand, the strict IO–DO order is indeed evidence for fully grammaticalized clitics; on the other hand, in terms of their morphology, Pontic clitics do not look like real determiner-like clitics of the SMG and Romance variety, as (in addition to the fact that they are also strictly enclitic) they are disyllabic and do not seem to have undergone sufficient formal reduction. These last two points, together with the lack of doubling, point to the direction that Pontic “clitics” are not true clitics but resemble weak pronouns in the sense of [Cardinaletti and Starke \(1999\)](#), close to Italian *loro*. This is in agreement with the insight of [Condoravdi and Kiparsky \(2002\)](#),

who argued for a tripartite distinction present in the diachrony and the dialectal varieties of Greek between clitics that are $X^{\max} - X^0$ – affixes, with Pontic having an intermediate category on the grammaticalization cline—not exactly pronouns but not exactly affixal clitics either. This can naturally account for the total lack of clitic doubling: it is only affixal clitics (in C and K’s terms), or D-clitics in our terms, that can undergo clitic doubling, and Pontic lacks those entirely.

7. Conclusions

In this paper, we have reported on the paradigm of the constructions of the Ancient Greek dative in Northern Greek and Pontic. Both varieties use the accusative in all environments where SMG would use the genitive. The differences between the two varieties are primarily rooted in the availability (as in Northern Greek) or unavailability (as in Pontic) of determiner-like clitics similar to those found in Romance and SMG. Another key difference between the two varieties, which follows from their difference in terms of types of clitics available, relates to “high” arguments, such as external possessors and ethical datives. We argue that it is only determiner-like clitics that can license these high positions.

Our paper cannot exhaust this topic, as it requires further research in other ACC=IO dialect groups (e.g., Cappadocian and Mariupolitan) and the GEN=IO dialects in order to compare the distribution of accusative IOs to the genitive ones in a more detailed way. However, we hope that we have made some preliminary work towards analyzing the true role of cliticization in two Greek varieties, especially in environments corresponding to Ancient Greek datives, and we also hope to have provided evidence for the crucial differences between high and low positions in Greek.

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Data Availability Statement: All data from this work is freely available and can be found at: <https://www.ulster.ac.uk/faculties/arts-humanities-and-social-sciences/communication-and-media/research/investigating-variation-and-change/corpusdata/fieldwork> (accessed on 1 August 2022).

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Notes

- ¹ All examples in Greek are given in phonetic transcription in the IPA. The stress accent is marked by the acute on the stressed vowel. Examples in Northern Greek mark the deletion of unstressed vowels with an apostrophe. The only phenomenon not phonetically transcribed is the deletion or the fusion of the final /n/ of the acc.sg of the definite article and the third person with the initial consonants of the following noun, e.g., /ton patera/ [to(m) batera] “the father”. We omitted this phonetic element so that there is no confusion between the masculine acc.sg. [to(n)] and the neuter [to].
- ² Apart from set expressions of ecclesiastical origin, which have always been based on ClG and HellG, e.g., *đóksa to theó* “glory to the Lord” [identical to an accusative].
- ³ When variation exists (e.g., *korákois* instead of *kóraksi*), it seems either to be based on metrical preferences in verse texts or to arise from solecisms and poor knowledge of the archaistic language.

- A small number of varieties only exhibit only one of the two features, e.g., there is only raising in Naousa, Macedonia and only deletion in Preveza, Epirus. Regarding the role of [u] in the evolution of the dative, an anonymous reviewer pointed out that the vowel /y/ survived as /y/ quite late, as late as 19th c. in some areas, and only subsequently evolved into /u/ or /i/ (as seen in recent discussions in (Mendez Dosuna 2021; Pantelidis 2021)). In our view, while this has possibly affected the evolution of the dative, we do not regard it as a crucial factor.
- Some conservative GEN=IO varieties (especially in southern Aegean and Cyprus) have replaced the ancient dative with the genitive, e.g., *akluθó tu yéru* “I follow the old man”.
- The verbs listed in the table are standard SMG verbs that exemplify this class. In our fieldwork, we tried to use the standard verb or in its absence the dialectal cognate. Failing this, we used a synonym or ultimately moved to another verb from that group.
- It could be that classes 4 and 5 are actually one and the same class, and we expect them to behave similarly. However, because the verbs in class 5 are not, strictly speaking, psychological, we have them in separate classes.
- These verbs are characterized as comitatives because when they occur with a PP this PP is headed by the preposition “with” in contrast to the other “low applicative” verbs where the PP variant either surfaces with a “to” or “from” preposition. A practical criterion for drawing a distinction between high and low applicatives in Greek is the availability of a PP variant for the relevant constructions. We characterize those constructions where a PP variant is available as low applicatives, and by this criterion, benefactive verbs of the type “cook”/“buy” qualify as low applicatives similarly to experiencer verbs and affected constructions of the type seen in 4 and 5 where a “to” or “from” PP is possible. On the other hand, what we call high applicatives do not have the option of alternating with PPs. We are using the terms “high” and “low” not in the strict sense of, e.g., (Pykkänen [2002] 2008), but rather as a descriptive way of drawing a distinction that, as we will see, is very crucial for the phenomena discussed in this paper. What we call a high applicative here always has an external possessor/affected/causer flavor (Schäfer 2008; Deal 2017; Bosse et al. 2012; Anagnostopoulou and Sevdali 2020) or an ethical dative flavor (Michelioudakis and Kapogianni 2013).
- Most benefactives behave like IOs, while if there are benefactives that qualify as benefactives without falling in the category of either external possessors or experiencers/affected arguments, then they could be labeled as “free beneficiaries” and could be classified together with ethical datives. According to Michelioudakis (2012, p. 182), free benefactives are optional and “appear (even) with mono-eventive predicates, e.g., transitive and unergative verbs with simple event structures, e.g., “activities”, “statives”, and “achievements”. We believe that the class described by Michelioudakis should probably be reclassified into several distinct classes of the type illustrated in Table 2. If it nevertheless exists as a separate class, then it can be classified together with our last class, that of ethical datives, to which they are quite similar in many ways. Notice, though, that in the most conservative literature, ethical datives are reserved for datives encoding perspective, which do not surface as DPs at all, are typically first or second person, and occur very high in the clause.
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- An anonymous reviewer urged us compare our findings with prior existing material from fieldwork on Pontic during the 19th and the 20th century. They claimed that this would make the results of the syntactic description more reliable, and this material may contain instances of all the construction types discussed in the paper. While we thank the reviewer for this suggestion, we must leave this comparison, useful as it may be, for another time.
- An anonymous reviewer stated that it would be highly improbable that the clitic [ts] surfacing in the case of two consecutive accusative clitics is the feminine genitive singular [tis], as this would presuppose that (a) the genitive IO suddenly surface in an exclusively acc.-IO dialect and (b) the feminine generalize over the masculine. We agree with the reviewer and therefore we consider the second possibility as the most probable one. We include them both for the sake of completeness. For a thorough discussion on the expression of indirect objects in Medieval Greek, see the work of Lendari and Manolissou (2003).
- Variation with respect to word order, number/gender/definiteness does not seem to play a role in the acceptability of any structures, although there is a preference for IO–DO structures and definite IOs. This is the same with source ditransitives, as seen in Section 4.1.2, and benefactives malefactives, as seen in Section 4.1.3.
- e.g., **ðos aton ato* “give him that”. A strong form is used instead, e.g., *ðosa to atónene* “give it to him”.
- An anonymous reviewer made a point regarding the relationship between Pontic and Standard Greek. In particular, they claimed that Pontic has been cut off from the development of the main body of Greek since at least the 15th c. and would therefore not be expected to pattern with Standard MG or the Northern MG dialects in the matter of innovative syntactic phenomena, as some of the constructions examined here had not yet developed in Greek at the time of the split-off of Pontic. They further claimed that for the absence of construction X or Y to be characteristic of Pontic specifically, its date of appearance should first be determined. While we agree that the diachrony of these varieties is important, especially in relation to properties of Medieval Greek, this is beyond the scope of the present work. The reviewer specifically singled out the absence of clitic doubling, especially given that it

is allegedly absent from Medieval Greek (as argued by Soltic 2013). While this is an important point, a systematic comparison between Medieval Greek and Pontic lies beyond the scope of this paper and must be left for future work.

- 16 It is interesting to note that dative alternation seems to be more limited for some speakers with experiencers, which may be paralleled in Cypriot Greek (Michelioudakis and Sitaridou 2012, p. 238) and the rare attestation of *se* with *aréso* in vernacular Medieval/early Modern texts.
- 17 The symbol ✓/✗ in the table above illustrates either variation among speakers or grammaticality and ungrammaticality in different environments, in particular whether the DO is a DP or a clause.

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