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Accounting for relic variant maintenance in Insular Catalan dialects: Implications for *linguistic drift* theory

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1 Introduction

The notion of *linguistic drift*, first proposed by Sapir (1921), focuses on inherited or natural tendencies of distinct linguistic varieties. We explore *linguistic drift* by analyzing two Insular Catalan varieties (Algherese and Balearic Catalan) that can be considered child language varieties of a Peninsular Catalan dialect (Central Catalan). Though we report Insular Catalan evidence for Drift 1 and Drift 2 (cf. Trudgill, Gordon, Lewis, and MacLagan 2000), our discussion focuses on the existence of vitalic Insular phonological and morphological variants that are vestigial and/or archaic (cf. Trudgill 1999) in Central Catalan and therefore are not able to be accounted for by either type of linguistic drift. These are Insular variants that, since the formation of Insular Catalan varieties, have not undergone change and have seemingly resisted further linguistic evolution, in stark contrast with their continued evolutions in Central Catalan.

We suggest that in order to account for the presence of relic variants in diaspora varieties, linguistic drift theory must take into account certain social factors. We propose that first-order social networks contribute to relic variant maintenance, and additionally, we emphasize the role of language contact in the unique historical development of Algherese, discussing its implications for linguistic drift theory and referencing previous treatments of language contact as a motivator behind strictly apparent reversals of linguistic drift and as an inhibitor of linguistic innovation.

This paper is structured as follows: Section 2 discusses the premise for linguistic drift as treated by Sapir (1921) and Trudgill *et al.* (2000) using phonological evidence from Insular Catalan varieties. Section 3 situates Algherese and Balearic Catalan in their social-historical contexts with respect to Central Catalan. Section 4 details the presence of four relic phonological and morphological variants of Insular Catalan. Section 5 emphasizes the role of social factors in the relic variant maintenance of Insular Catalan varieties, and we conclude in Section 6.

2 The role of linguistic drift in linguistic change and continuity

Sapir (1921) argues that language change in the sense of the formation of distinct dialects cannot solely be the result of linguistic variation present at the level of the individual speaker. Instead, Sapir highlights the role of geographic separation between speakers, proposing that "dialects arise not because of the mere fact of individual variation[, ...]but because two or more groups of individuals have become sufficiently disconnected to drift apart, or independently, instead of together" (Sapir 1921: 161). For Sapir, large populations exhibit a

natural tendency to geographically segregate themselves into local groups, which is conducive to unique language trends. Sapir details these trends as "cumulative in some special direction," suggestive of an intrinsic path along which language varieties evolve and become unique (Sapir 1921: 161, 165-166).

However, the uniqueness in linguistic evolution of such segregated linguistic varieties is not necessarily absolute. Rather, Sapir observes that for example, with respect to modern English and German, there exists a parallel plural formation respectively exemplified in *foot:feet*, *mouse:mice* and *Fuss:Füsse*, *Maus:Mäuse* that can only be explained as the result of an inherited linguistic tendency (or 'direction,' as Sapir put it above) from Primitive Germanic, since documentary evidence suggests that no such plurals existed in Primitive Germanic (Sapir 1921: 184).

A case such as this of parallel linguistic evolutions in geographically isolated language varieties with a common ancestor demonstrates the momentum of linguistic drift: though disconnected varieties naturally change and become unique with respect to one another over time, they do so influenced by inherited linguistic propensities from their parent variety, which may result in necessarily independent yet nevertheless parallel linguistic diachronic changes.

2.1 Types of linguistic drift as evidenced in Insular Catalan varieties

Trudgill *et al.* (2000) further Sapir's discussion of linguistic drift by distinguishing two distinct types: Drift 1, in which inherited linguistic changes in progress from the parent variety are independently continued in disconnected child varieties, and Drift 2, in which inherited propensities toward linguistic changes from a parent variety are independently realized in disconnected child varieties¹. Below, we briefly exemplify each type of linguistic drift using phonological evidence from the evolution of Insular Catalan varieties.

2.1.1 Drift 1: Independent parallel evolutions continued from a change in progress

Drift 1 refers to a context of linguistic drift in which "...linguistic changes that are already in progress in the common source [are] continued even after separation" (Trudgill *et al.* 2000: 112). Important to the definition of Drift 1 is the notion that child varieties inherit a *change in progress* from the parent variety, that is, a vitalic competition between two or more variants that before separation

¹Trudgill *et al.* (2000: 112) note that Drift 1 and Drift 2 are not radically different; rather, they should be viewed as members of a continuum, as it may be difficult to determine in a particular instance whether or not a change in progress was present in a parent variety at the time of its population split. Moreover, while the term "change in progress" suggests a vitalic competition between linguistic variants, there is no objective point at which one may identify when a new variant has become competitive enough with an older one to constitute a change in progress.

²Badia i Margarit (1981: 189-192) notes that though Mozarabic was present on the Balearic Islands at the time of their conquest under King Jaume I, its influence as a substrate in the evolution of Balearic Catalan was negligible and/or superficial.

³The Eastern Catalan varieties are Central Catalan, Balearic Catalan, Algerese, and

did not resolve in the parent variety, but had begun and later fully resolves independently in child varieties after their formation. The backing of Latin atonic \check{E} in Central and Insular Catalan varieties illustrates a case of Drift 1.

Originally, this atonic Latin vowel was realized as [e] in Central Catalan until the late 10th century, when it first entered into allophonic competition with modern [ə] in words such as $L\check{E}G\check{U}M\check{E}N > ll[e]gum > ll[ə]gum$ ‘legume’ (Duarte i Montserrat and Alsina i Keith 1984: 124). Note that whereas the population movements of speakers of Central Catalan (in Northeastern Catalonia, Spain) that formed Balearic Catalan (in the Balearic Islands) and Algherese (in Sardinia) occurred respectively in the mid 13th century and 1354, the allophonic competition between [e] and [ə] in Central Catalan did not fully resolve itself to favor modern [ə] until the mid-15th century (Badia i Margarit 1984: 119; Segarra 1985: 62-63). Since the formation of both Insular Catalan varieties from speakers of Central Catalan occurred before the late 15th century, this suggests that the first speakers of Balearic Catalan and Algherese inherited a change in progress in form of [e] ~ [ə] (as opposed to either of the stable variants [e] or [ə]), which independently (and in a parallel manner to Central Catalan) resolved to favor [ə] in Balearic Catalan in the late 15th century, indicative of a case of Drift 1 (Cabruja, Casanellas, and Massip 1987: XXII; Ferrando Francés and Nicolás Amorós 2005: 175).

The resolution of [e] ~ [ə] in Algherese, however, is slightly more complex. Rather than resolve to favor either of these variants, Algherese experienced the introduction of a third variant, the low vowel [a], which has been selected as the favored variant in words like $ll[a]gum$ ‘legume’ since the mid-16th century (Blasco Ferrer 1984: 27). Though we discuss the role of social factors in further detail in section 5, we briefly note here that Sardinian, which has been in contact with Algherese since its formation in 1354, has been attributed as having an adstrate influence on Algherese, more specifically with respect to the introduction and eventual selection of [a] in Algherese (Caria 2006: 48; Jones 1988: 317).

In summary, the evolution of Latin atonic \check{E} in Central and Insular Catalan varieties constitutes a case of Drift 1 wherein an inherited change in progress ([e] ~ [ə]) was independently continued in all varieties as a backing of the original [e] to [ə] in Balearic Catalan, along with an additional lowering to [a] in Algherese (as influenced from contact with Sardinian). We provide table 1 below as a means of summarizing this case of Drift 1.

Table 1: Independent, parallel backing of atonic [e] in Central and Insular Catalan – Drift 1

Linguistic Feature	Central Catalan from 1229-1354	Central Catalan after 1354	Algherese	Balearic Catalan
Atonic \check{E} > [e] > [e] ~ [ə] (~[a]) > [e/a]	[e] ~ [ə] <i>llegum</i> [Λeχúm] ~ [Λəχúm]	[e] ~ [ə] > [ə] <i>llegum</i> [Λəχúm]	[e] ~ [ə] > [e] ~ [ə] ~ [a] > [a] <i>llegum</i> [Λaχúm]	[e] ~ [ə] > [ə] <i>llegum</i> [Λəχúm]

2.1.2 Drift 2: Independent parallel evolutions from inherited linguistic tendencies

Drift 2 refers to a linguistic drift in which "...varieties with a common source inherit shared tendencies or propensities which may lead to the development of similar but new changes and hence similar but new characteristics, even after separation" (Trudgill *et al.* 2000: 112). Important to the definition of Drift 2 is the notion that child varieties inherit a *propensity toward a particular change* from their parent variety. Here, a linguistic propensity is a tendency toward change that has necessarily not yet instigated a vitalic competition between variants in the parent variety at the moment of population split. The raising of Latin atonic, non-word-final *O* in Central and Insular Catalan varieties illustrates a case of Drift 2.

Central Catalan initially realized atonic, non-word-final *O* as the closed mid-vowel [o] in words such as *DONARE* > *donar* 'to give', yielding [donár] until the mid-15th to mid-16th centuries, during which [o] began to raise to [u], systematically favoring [u] by the start of the 17th century, yielding modern [duná] (Ferrando Francés and Nicolás Amorós 2005: 218, 258; Gulsoy 1993: 52). Since this change in Central Catalan occurred after the population movements that formed both Insular Catalan varieties, evidence of an independent parallel change in either Insular dialect would be attributable not to any inherited change in progress from Central Catalan, but rather an inherited linguistic propensity toward the raising of [o] to [u]. This is precisely what is found for Algherese, which evidences the raising of atonic, non-word-final [o] to [u] as early as the 15th century, systematically so following the 16th century (Blasco Ferrer 1984: 31-32).

In Balearic Catalan, however, the raising of atonic, non-word-final [o] to [u] is not a generalized evolution; rather, it has taken place during the 19th century in Minorca, Ibiza, and the city of Sóller, Majorca (Marí 1992: 8; Veny 1982: 82). Ferrando Francés and Nicolás Amorós (2005: 341) highlight a lack of substantial interdialectal contact between Insular and Peninsular varieties during this period, making it less likely that these changes reflect interdialectal contact with Central Catalan. Accordingly, we treat the raising of [o] to [u] in these areas of Balearic Catalan as a case of Drift 2, in which in the absence of direct parental dialect contact, these areas of Balearic Catalan exhibited a change that yielded an identical linguistic outcome to that of its parent variety, reflecting an inherited propensity toward [o] raising.

In summary, the evolution of Latin atonic, non-word-final *O* in Central and Insular Catalan varieties may be accounted for as a case of Drift 2 wherein an inherited propensity toward the raising of [o] to [u] led to this strictly independent yet parallel raising in each of the aforementioned Insular varieties. We provide table 2 below as a means of summarizing this case of Drift 2.

Table 2: Independent, parallel atonic non-word-final [o] raising in Central/Insular Catalan - Drift 2

Linguistic Feature	Central Catalan from 1229-1354	Central Catalan after 1354	Algherese	Balearic Catalan
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Atonic, non-word-final <i>O</i> > [o] > [u]	[o] <i>donar</i> [donár]	[o] > [o] ~ [u] > [u] <i>donar</i> [duná]	[o] > [o] ~ [u] > [u] <i>donar</i> [dunár]	<i>Ibiza, Minorca, Sóller</i> [o] > [o] ~ [u] > [u] <i>donar</i> [duná]
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3 Socio-Historical presentation of Insular Catalan varieties

Before discussing cases of relic variants in Insular Catalan varieties and the problems they pose for traditional linguistic drift theory, we briefly detail the socio-historical formations of Balearic Catalan and Algherese from Central Catalan. Our presentation focuses on periods of language contact that, if taken into account by linguistic drift theory, will be useful in accounting for relic variant maintenance in these varieties.

3.1 Formation of Algherese

Under King Peter III of the Arago-Catalan Kingdom, the conquest of Sardinia began in 1323 and ended with the fall and establishment of a fortified base in the city of Alghero on December 22, 1354 (Argenter 2008: 209). Once in control of Alghero, King Peter III ordered the expulsion of all native Alghero residents (Corsicans, Genoese, and Sardinians) from Alghero, as well as actively encouraged Catalan immigration to Alghero for over a century until roughly 1478 (Nadal and Prats 1982: 442). Critically, these immigrants are documented to have been speakers of Central Catalan, as they predominantly hailed from Camp de Tarragona and Penedès, two cities in the Central Catalan-speaking territory of Northeastern Catalonia (Martí i Castell 1985: 171). Catalan supremacy of the island coincided with the exclusive use of Catalan as the language of administration from 1323 to the 17th century (Leprêtre 1995: 60-61).

The marriage of King Ferdinand II of Aragon and Queen Isabella of Castile in 1479 under the newly formed Spanish Crown marked the start of Castilian penetration and dominance in Sardinia. Though Catalan remained the language of administration until the 17th century, gradual Castilian immigration to Sardinia as well as the arrival of the Spanish Inquisition in 1492 facilitated a gradual language shift from Catalan to Spanish (Veny 1982: 104).

Sardinia was ceded in 1720 to the House of Savoy, severing all contact with Catalonia. Italian presence on the island gradually increased, accompanied by legislation in 1750 to promote Italian in schools and the administration. Italian completely replaced Spanish as the language of administration in 1759, though Sardinia was not declared an Autonomous Region of Italy until 1948 (Argenter 2008: 209). Algherese, which has survived in the city of Alghero, shows influence from Spanish and Italian superstrates, as well as from a Sardinian adstrate, though such effects of language contact have traditionally been treated in discussions of Algherese lexical innovations (Veny 1982: 115).

3.2 Formation of Balearic Catalan

Catalan was brought to the Balearic Islands through their conquest under King

Jaume I of Aragon from 1229 through 1287. As in the case of Sardinia, the conquerors were primarily speakers of Central Catalan, hailing from Barcelona and Gerona (Blas-Arroyo 2007: 82). Catalan was the exclusive language of the islands until the unification of the Spanish Crown in 1479, after which the islands experienced a gradual increase in Spanish presence². The administrative linguistic substitution of Catalan for Spanish did not occur until after the Spanish War of Succession in the early 18th century, when Spanish King Phillip V signed the Ordinance of New Plant, a legislation that suppressed all institutions and privileges of territories formerly part of the Aragon Crown. One may also note the particularly reinforced substitution of Catalan with Spanish during the Franco regime (1936-1975). Catalan, effectively outlawed in Spanish territories during the Franco dictatorship, existed almost exclusively in the private, oral spheres of family and colloquial domains (Blas-Arroyo 2007: 82-83).

We summarize the aforementioned pertinent socio-historical backgrounds of each Insular Catalan variety below in table 4.

Table 4: Socio-Historical information of Insular Catalan

Insular Catalan Variety	Parent Variety	Approximate Year of Population Movement from Parent Variety	Influence of Other Languages
Algherese	Central Catalan	1354	Sardinian - adstrate Spanish - superstrate Italian - superstrate
Balearic Catalan	Central Catalan	1229-1287	Spanish - superstrate

4. Four relic variants of Insular Catalan varieties

Our analysis of Insular Catalan diachronic evolutions in section 2.1 above has been able to account for independent parallel evolutions with Drift 1 and Drift 2 as proposed by Trudgill *et al.* (2000). However, there exist cases in which we do not find innovative linguistic evolutions in Insular varieties, rather, in potential cases of Drift 1 and Drift 2 respectively, either changes in progress complete themselves exclusively in Central Catalan and not in Insular varieties, or inherited linguistic propensities never bring about parallel and/or innovative changes in Insular varieties. These are cases in which Insular Catalan varieties preserve relic variants that are in modern Central Catalan either extinct or what Trudgill (1999) labels *vestigial*, or near extinct in their frequency of use. For linguistic drift theory, these relic variants suggest the possibility for either a lack of a continuation of an inherited change in progress on the part of a diaspora variety or the lack of a significant influence of an inherited linguistic propensity toward change. In this section, we present two phonological and two morphological cases of relic variants in Insular Catalan varieties that seemingly resist natural linguistic

² Badia i Margarit (1981: 189-192) notes that though Mozarabic was present on the Balearic Islands at the time of their conquest under King Jaume I, its influence as a substrate in the evolution of Balearic Catalan was negligible and/or superficial.

change toward innovation.

4.1 Two phonological relic variants in Insular Catalan

The first phonological relic variant concerns the distinction between voiced bilabial stop [b] and voiced labiodental fricative [v], both phonemes of Central Catalan before the Balearic population split in 1229. Central Catalan originally distinguished [b] from [v], such that there existed minimal pairs like *ball* ‘dance’ and *vall* ‘valley.’ The loss of distinction between [b] and [v] began as a change in progress in Central Catalan as early as the 12th century (Rasico 1981: 146; 1982: 133), but was not completed in Central Catalan until roughly 1450, when textual evidence indicates the total merger of [b] and [v] into [b] (Segarra 1985: 28). Balearic Catalan (during the 13th century) and Algerese (during the 14th century) would have inherited a change in progress from Central Catalan, namely the competition [v]~[b]. However, both Insular dialects continue to maintain the distinction between [b] and [v], a salient feature that marks them regionally as the only Eastern Catalan varieties³ that preserve [v] (Marí 1992: 11). Thus, whereas proponents of Drift 1 would expect the eventual merger of [v] into [b] in both Insular varieties, their continued preservation of [v] can only be classified as a case of potential Drift 1 wherein an inherited change in progress was halted, resulting in the favoring of the original, relic variant.

The second phonological relic variant exists systematically only in Algerese, though this merely reflects the more general fact that Algerese has remained more isolated from Central Catalan than Balearic Catalan, and to this end exhibits more linguistically conservative features in relation to Central Catalan than does Balearic Catalan (Nadal and Prats 1982: 447; Sanchis Guarner 1980: 183). Here, we refer to the historical voicing of Latin intervocalic voiceless oral stops in the mid-7th century (Ferrando Francés and Nicolás Amorós 2005: 70; Vidal 2007: 60), followed by their lenition to voiced approximants as exemplified in the respective evolutions of Latin *OPACA* ‘shady’ and *CATENA* ‘chain’ to Medieval Catalan *obaga* [obága] and *cadena* [kadéna], and lastly to modern Central Catalan [uβáyə] and [kəðénə] (Griera 1965: 51, 53, 59). In Central Catalan, the lenition of these intervocalic voiced oral stops dates back to before the 13th century, and fully resolved to favor the weakened modern approximants by the start of the 15th century (Duarte i Montserrat and Alsina i Keith 1984: 217; Rasico 1982: 129, 133-134).

With respect to the formation of Balearic Catalan during the mid-13th century, we may claim that rather than a stable variant set [b-d-g] or [β-ð-ɣ], a change in progress ([b-d-g] > [b-d-g]~[β-ð-ɣ]) was directly inherited from Central Catalan. Unfortunately, historical data referring to the date by which the change in progress between the two variant sets had resolved in favor of [β-ð-ɣ] specifically in Balearic Catalan is, to our knowledge, unavailable. Duarte i Montserrat and

³The Eastern Catalan varieties are Central Catalan, Balearic Catalan, Algerese, and Roussillonais, spoken in Roussillon, France (Veny 1982: 28).

Alsina i Keith (1984: 218) suggest it was completed more generally in all Catalan varieties (save Algherese) during the 15th century, and to this effect Moll (1962: 56) describes Balearic Catalan as presently exhibiting systematic [β-ð-ɣ]. However, more recent empirical dialectal research (Hualde, Nadeu, and Simonet 2010; Recasens 1991: 183, 208, 234-235; Wheeler 2005: 320-323) has shown that occlusive [b-d-g] variants (particularly [b]) are still frequent variants alongside [β-ð-ɣ] in Balearic Catalan, sociolinguistically stratified by age such that the occlusive set is used more often by older speakers than younger speakers. In light of these studies, we shall consider the inherited change in progress [b-d-g]~[β-ð-ɣ] to not have fully resolved in Balearic Catalan, evidencing a case of relic variant maintenance, albeit to a variable degree.

Regarding Algherese at the time of its formation in 1354, it would have likely inherited from Central Catalan a (nearly completed) change in progress [b-d-g]~[β-ð-ɣ]. Interestingly, this Catalan variety is quite unique in that after its formation, speakers resolved competition between the variant sets to favor relic [b-d-g], and presently is the only Catalan variety that systematically maintains these stops, defying seemingly universal tendencies of lenition in this context (Martí i Castell 1985: 173-174). The preservation of intervocalic [b-d-g] in Algherese can be classified as a case of potential Drift 1 wherein an inherited change in progress was halted, resulting in the favoring of a relic variant.

The aforementioned cases of phonological relic variants in Insular Catalan are summarized below in table 5.

Table 5: Phonological relic variants of Insular Catalan

Linguistic Feature	Central Catalan from 1229-1354	Central Catalan after 1354	Algherese	Balearic Catalan
[v] > [v] ~ [b] > [b]	[v] ~ [b] <i>vall</i> [váʎ] ~ [báʎ]	[v] ~ [b] > [b] <i>vall</i> [báʎ]	[v] ~ [b] > [v] <i>vall</i> [vál]	[v] ~ [b] > [v] <i>vall</i> [váʎ]
[b,d,g] > [b,d,g] ~ [β,ð,ɣ] > [β,ð,ɣ]	[b,d,g] ~ [β,ð,ɣ] <i>obaga</i> [obáɣa] ~ [obáʎa]	[b,d,g] ~ [β,ð,ɣ] > [β,ð,ɣ] <i>obaga</i> [ubáʎə]	[b,d,g] ~ [β,ð,ɣ] > [b,d,g] <i>obaga</i> [ubáɣa]	[b,d,g] ~ [β,ð,ɣ] > [β,ð,ɣ] (~ [b,d,g]) <i>obaga</i> [ubáʎə] (~ [ubáɣə])

4.2 Two morphological relic variants in Insular Catalan

The first morphological relic variant concerns the historical neutralization of the 2nd person plural present indicative suffix in class I and class II Latin verbs. In a class I verb like *CANT-ATIS* ‘you all sing,’ Central Catalan exhibited a series of diachronic suffix evolutions, from Old Catalan *cant-ats* to Medieval Catalan *cant-au* and finally to modern *cant-eu*. This final suffix form, /-eu/, arose as a neutralization of this suffix between class I and class II verbs, as the parallel evolution of this suffix in class II verbs, such as *PERD-ÍTIS* ‘you all lose,’ evolved from Old Catalan *perd-ets* to Medieval and modern *perd-eu* (Badia i Margarit 1984: 127, 346-347; Cabruja *et al.* 1987: XXVIII; Ferrando Francés and Nicolás Amorós 1993: 103; Moll 2006: 195; Nadal & Prats 1982: 286; Segarra

1985: 126). This morphological neutralization in Central Catalan (with respect to the suffix of class I verbs such as *CANT-ATIS*) began as a change in progress once the innovative variant /-eu/ entered into competition with /-au/ during the 16th century (Segarra 1985: 126). Since the introduction of the innovative class I suffix /-au/ proceeds both the formations of Balearic Catalan (1229-1287) and Algherese (1354), proponents of Drift 2 would expect that an inherited propensity toward this neutralization would result in parallel and independent evolutions in these Insular varieties. However, whereas Central Catalan resolved the competition between /-au/ ~ /-eu/ to favor modern /-eu/ in the mid-17th to 18th centuries, neither Insular variety has exhibited this neutralization, and both presently conserve the relic class I suffix /-au/ (Blasco Ferrer 1984: 139; Martí i Castell 1985: 175; Ruaiç i Vinyet 1990: 14; Segarra 1985: 126). The preservation of the relic class I /-au/ suffix in Insular Catalan can be described as the result of a potential case of Drift 2 wherein neither Insular variety experienced a parallel and independent evolution toward /-eu/ despite inheriting a propensity toward this innovation from Central Catalan.

The second morphological relic concerns the choice of auxiliary in participle constructions. Perfect constructions in Romance originally used two finite verbs distinguished by contexts of transitivity. Transitive constructions made use of Latin *HABĒRE* (Catalan *haver*) ‘to have,’ whereas intransitive constructions made use of Latin **ESSĒRE* (Catalan *ésser*) ‘to be’ (Badia i Margarit 1984: 367-369; Moll 1937: 106). This distinction may be noted when comparing a transitive construction such as *He cantada una cançó* ‘I have sung a song’ with an intransitive construction such as *Sóc sortida* ‘I have left’ (literally ‘I am left’). Central Catalan experienced a historical grammaticalization of *haver* such that it replaced *ésser* as the auxiliary in intransitive perfect constructions. Textual evidence reveals that the competition between *haver* and *ésser* in intransitive perfect constructions in Central Catalan began around the 12th century and resolved to favor *haver* as the exclusive auxiliary by the 16th century (Fabra 1912: 136; Ferrando Francés and Nicolás Amorós 2005: 218). This suggests that Balearic Catalan (during the 13th century) and Algherese (during the 14th century) would have both inherited a change in progress from Central Catalan, namely the competition /*haver*/ ~ /*ésser*/ in intransitive perfect constructions.

In the case of Balearic Catalan, once again, we are unaware of any historical data evidencing the exact date by which this inherited competition resolved itself in a parallel manner to Central Catalan, favoring *haver* as the auxiliary in intransitive contexts. Ferrando Francés and Nicolás Amorós (1993: 105) suggest that *haver* was selected over *ésser* by the 16th century in all Catalan varieties more generally (save Algherese and Roussillonais). However, Veny (1982: 94) notes that *ésser* as an intransitive construction auxiliary continues to exist in Majorca and Menorca, albeit marginally and with a strong rural connotation. Algherese, on the other hand, has since its formation resolved the competition to favor the original relic variant *ésser*, and presently conserves the transitivity distinction between the two auxiliaries systematically (Blasco Ferrer 1984: 157; Vallverdú

2003: 41). Thus, whereas proponents of Drift 1 would expect the eventual replacement of *ésser* by *haver* in both Insular varieties, the continued preservation of *ésser* as an auxiliary for intransitive constructions in Algherese (and marginally in Balearic Catalan) can only be classified as a case of potential Drift 1 wherein an inherited change in progress was halted, resulting in the favoring of a relic variant.

The aforementioned cases of morphological relic variants in Insular Catalan are summarized below in table 6.

Table 6: Morphological relic variants of Insular Catalan

Linguistic Feature	Central Catalan from 1250-1354	Central Catalan after 1354	Algherese	Balearic Catalan
/-au/ > /-au/ ~ /-eu/ > /-eu/	/-au/ <i>cant-au</i>	/-au/ > /-au/ ~ /-eu/ > /-eu/ <i>cant-eu</i>	/-au/ > /-au/ ~ /-eu/ > /-eu/ <i>cant-au</i>	/-au/ > /-au/ ~ /-eu/ > /-eu/ <i>cant-au</i>
/ésser/ > /ésser/ ~ /haver/ > /haver/	/ésser/ ~ /haver/ <i>Sóc sortida</i> ~ <i>He sortida</i>	/ésser/ ~ /haver/ > /haver/ <i>He sortit</i>	/ésser/ ~ /haver/ > /ésser/ <i>Sóc sortida</i>	/ésser/ ~ /haver/ > /haver/ (ésser/ marginally) <i>Sóc sortida</i>

4.3 Summary of outcomes of potential Drifts 1 & 2 in Insular Catalan

In the sections above, we have detailed four cases of phonological and morphological relic variant maintenance in Insular Catalan that are problematic for current linguistic drift theory. In cases of potential Drift 1, changes in progress inherited from a parent variety were not continued in the diaspora varieties, which in fact reversed these changes in progress back to favor the original relic variant. In cases of potential Drift 2, inherited linguistic propensities toward a particular innovative change inherited from a parent variety never came to fruition in the diaspora varieties, which in fact resisted natural linguistic change toward innovation and instead conserved a relic variant. We detail these four cases in table 7 below before continuing in section 5 with new proposals for linguistic drift theory in order to account for relic variant maintenance in diaspora varieties.

Table 7: Summary of phonological and morphological relic variant outcomes in Insular Catalan

Relic Variant	Insular Catalan Variety	Type of (Potential) Drift	Variant Outcome
[v] <i>vall</i>	Balearic Catalan	Potential Drift 1	Relic
	Algherese	Potential Drift 1	Relic
[b-d-g] <i>obaga</i>	Balearic Catalan	Potential Drift 1	Relic (Restricted Usage)
	Algherese	Potential Drift 1	Relic
/-au/ <i>cant-au</i>	Balearic Catalan	Potential Drift 2	Relic
	Algherese	Potential Drift 2	Relic
/ésser/ + past participle <i>Sóc sortida</i>	Balearic Catalan	Potential Drift 1	Relic (Restricted Usage)
	Algherese	Potential Drift 1	Relic

5. Accounting for relic variant maintenance in Insular Catalan

We propose that linguistic drift theory must consider certain social factors in

order to account for relic variant maintenance in diaspora varieties. We will elaborate on two such factors, namely the effects of closely knit social networks on the maintenance of relic variants and the effects of external language contact on the vitalic nature of relic variants in diaspora varieties.

5.1 The role of social networks in the maintenance of relic variants

We highlight the role of social networks in the (lack of) spread of linguistic innovations in the cases of small, isolated communities such as Alghero (for Algherese) and each of the three Balearic Islands (for Balearic Catalan). Previous research regarding social networks by Milroy and Milroy (1985) in Belfast suggests that linguistic innovations are most easily diffused within a community with loosely knit social networks consisting of weak-ties, whereas closely knit social networks of strong-ties best resist linguistic innovation (in particular, innovations from outside networks). Milroy and Milroy (1985: 359, 362) comment that those individuals with weak-ties to other speakers in the community are least likely to conform to vernacular norms, and therefore are more likely to introduce linguistic innovations, whereas individuals with stronger ties are more likely to conform to vernacular norms, rejecting (outside) innovations. Moreover, they suggest that "...in closeknit territorially defined groups it is possible to treat personal networks as if they were bounded groups whereas in socially and geographically mobile sectors of society this is not feasible" (Milroy and Milroy 1985: 363).

We therefore propose that it is reasonable to consider the populations of Alghero and the Balearic Islands highly bound, closely knit groups that would be more resistant to linguistic innovations and adhere more strongly to the established linguistic norms at the time of their formations. This analysis is also compatible with that of Trudgill (1992: 201), who notes that populations with low external contact frequently consist of strongly tied social networks, particularly in peripheral or isolated areas. Such closely knit social networks in Alghero and the Balearic Islands would generally facilitate the conservation of relic variants, and additionally help to account for the fact that it is precisely these two isolated diaspora varieties that remain the most conservative with respect to phonology and morphosyntax.

5.2 Incorporating external language contact in linguistic drift theory

Additionally, we explore possible effects of external language contact on the maintenance of relic variants in Insular Catalan, noting that this discussion primarily concerns Algherese, which of the two Insular varieties exhibits a more complex history of adstrate and superstrate influences (see table 4 above). Kerswill, Torgersen, and Fox (2008) examine the current status of a diphthong shift in London and New Zealand English that Trudgill *et al.* (2000) previously identified as a result of Drift 2 (wherein London English is the parent of New Zealand English). While the effects of the independently developed parallel diphthong shift were found to still be present in New Zealand English, Kerswill *et*

al. (2008: 461, 484) note an interesting reversal toward the original relic diphthongs slowly taking place in peripheral areas of London English. They propose that the reversal of the diphthong shift does not invalidate Drift 2, but rather is indicative of extralinguistic factors that since the population split have affected only peripheral London English, namely language contact.

Accordingly, they note that "[s]ince the second half of the last century, London... ha[s] been characterized by a great increase both in geographic mobility and by immigration. Mobility across the region... [and] a strong sense of ethnic identity ha[ve] led not to leveling, but to innovation, led by the second generation of new immigrants" (Kerswill *et al.* 2008: 486). Effectively, they conclude that the relic diphthongs acquired new vitality in London English naturally due to their vitalic nature in the speech of immigrants that had recently moved to peripheral areas of London.

We may summarize the extralinguistic factors detailed in Kerswill *et al.* (2008) as precisely factors of language contact (and not a true reversal of linguistic drift), wherein relic variants naturally acquire modern vitality through contact with speakers for whom these variants are competitive and vitalic. In the case of Insular Catalan, we have previously discussed a general lack of geographic mobility and external immigration, and as such we do not attempt to argue that these factors affect Insular relic variant preservation. However, with respect to Algherese, the history of language contact in Sardinia (refer back to table 4) may very well play a role in the conservative nature of this dialect. We detail likely accounts for two Algherese relic variant preservations in the following subsection.

5.2.1 The role of external language contact in Algherese relic maintenance

Enrique-Arias (2010) argues that certain situations of language contact can actually serve as an inhibitor of linguistic change, rather than as a promoter or even accelerator of linguistic change. Two language contact scenarios are explored, both of which are argued to account for the preservation of relic features of Majorcan Spanish on the island of Majorca: "...use of the traditional [relic] variant may be reinforced by (a) the existence of a parallel structure in the contact language and/or (b) the absence of a structural equivalent for the innovative variant in the contact language" (Enrique-Arias 2010: 100). In the case of the two relic variants that exist principally in Algherese, namely the continued use of *ésser* 'to be' as an intransitive construction auxiliary and the continued use of intervocalic voiced oral stops [b-d-g], contact with Sardinian may have reinforced their preservation due to the existence of parallel structures in this language.

First, with respect to the relic variant *ésser*, Jones (1988: 334; 1993: 130) notes that Sardinian maintains a parallel transitivity distinction between *áere* 'to have' for transitive constructions and *éssere* 'to be' for intransitive constructions. Additionally, the frequency of *éssere* as an intransitive construction auxiliary is particularly high in Sardinian, so much so that *éssere* + *past participle*

constructions are commonly used as morphosyntactic variants of the present tense (Jones 1988: 334; 1993: 83-84). Further support for the effect that this notably high frequency parallel structure in Sardinian has had on the preservation of its equivalent structure in Algherese has been noted by Veny (1982: 115), who details the unique Algherese word order in interrogatives such as *vangut sés?* ‘Have you come?’ (literally ‘come are you?’). Here, the auxiliary *ésser* proceeds the past participle, an archaic word order lost in other Catalan varieties and attributable to a direct calque from Sardinian that utilizes the same word order in its interrogatives⁴.

Second, with respect to the relic variant [b-d-g], the existence of a set of parallel structures in Sardinian may have influenced their conservation in Algherese. Each of the three intervocalic voiced oral stops exists as frequent pronunciations in Sardinian: (1) the resultant bilabial voiced oral stop /b/ from Latin /kw/ (as in *QUATTUOR* > *bator* ‘four’) never experiences lenition to an approximant, even in intervocalic position, (2) a general tendency for consonant fortition in an intervocalic context created by the elision of a preceding word-final consonant yields unlenited (and in fact geminate) voiced oral stops, such as alveolar /d/ in /kérɛ(t) **dd**ormírɛ/ ‘s/he wants to sleep,’ (3) initial voiced oral stops in loan words that are preceded by a word-final vowel (creating an intervocalic context) never experience lenition to approximants, as illustrated by the velar /g/ present in /sa gána/ ‘the hunger,’ adapted from Catalan *la gana* (Jones 1988: 321-322).

In summary, the preservation of *ésser* and [b-d-g] in Algherese may have been reinforced by a set of parallel structures in Sardinian. Moreover, given the competitive nature of these variants in Sardinian, their modern vitalic status in Algherese can be accounted for by proposing that contact with native Sardinian-speaking learners of Algherese (analogous to the contact of London English speakers with immigrants detailed in Kerswill *et al.* 2008) promoted these variants to acquire and/or maintain linguistic vitality naturally in Algherese.

6. Conclusion

Our analysis of linguistic drift has sought to add to the current research regarding independent parallel linguistic evolutions in diaspora varieties and their parent varieties, as well as suggest the incorporation of social factors such as social networks and external language contact into linguistic drift theory as a

⁴It is important to note that Spanish experienced a substitution of its archaic intransitive construction auxiliary *ser* ‘to be’ with modern *haber* ‘to have’ (analogous to the process in Central Catalan) between the 15th and 18th centuries, precisely during its contact with Algherese as a superstrate from 1479-1759 (Penny 2002: 166). With regard to why the loss of *ser* in Spanish would not reinforce the loss of *ésser* in Algherese in opposition to the influence of Sardinian, one may speculate that Spanish was not in contact with Algherese long enough to promote such a parallel change, especially considering the substitution of Spanish with Italian as a superstrate in 1759, a language which also conserves the transitivity distinction between its two parallel auxiliaries, *avere* ‘to have’ and *essere* ‘to be’ (Vincent 1988: 300).

means of accounting for relic variant maintenance in diaspora varieties. We have noted examples of both types of linguistic drift proposed in Trudgill *et al.* (2000) in Insular Catalan, as well as outlined four cases of phonological and morphological relic variant maintenance in Insular Catalan. We have proposed that small diaspora populations with relatively little external contact typically foster strongly knit social networks that can actively resist the continuation of inherited changes in progress and/or linguistic innovations in general, while noting that certain types of external language contact may nevertheless also reinforce relic variant maintenance, as has been suggested for Algherese with respect to its contact with Sardinian. It may also be noted that should the persistence of relic variants in diaspora varieties eventually acquire social value and consciousness amongst a population, their active resistance to innovative change may additionally be motivated by an association with group or local identity (Trudgill 2008). By incorporating these social factors into linguistic drift theory, we may more successfully account for a greater range of linguistic outcomes in the evolutions of diaspora varieties, and in particular, relic variant maintenance.

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