Deponency in morphology

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Summary

Deponency refers to mismatches between morphological form and syntactic function (or "meaning"), such that a given morphological exponent appears in a syntactic environment that is unexpected from the point of view of its canonical ("normal" or "expected") function. This phenomenon takes its name from Latin, where certain morphologically "passive" verbs appear in syntactically active contexts (for example, hort-or 'I encourage', with the same ending as passive am-or 'I am loved'), but it occurs in other languages as well. Moreover, the term has been extended to include mismatches in other domains, such as number mismatches in nominal morphology or tense mismatches on verbs (e.g., in the Germanic preterite-presents). Theoretical treatments of deponency vary from seeking a unified (and uniform) account of all observed mismatches to arguing that the wide range of cross-linguistically attested form-function mismatches does not form a natural class and does not require explanatory devices specific to the domain of morphology. It has also been argued that some apparent mismatches are "spurious" and have been misanalyzed. Nevertheless, it is generally agreed across frameworks that however such "morphological mismatches" are to be analyzed, deponency has potential ramifications for theories of the syntax-morphology interface and (depending on one's theoretical approach) the structure of the lexicon.

Keywords: deponency, morphosyntactic mismatches, morphology-syntax interface, voice, verbal morphology, morphological idiosyncrasy

1 Introduction

Deponency refers to mismatches between morphological form and syntactic function (or "meaning"). The term "deponent" comes from traditional Latin grammar, where deponents are verbs with the "wrong" voice morphology: they are morphologically passive, but syntactically active. For example, the Latin non-deponent verb *amō* 'love' in row a. of table 1 can be inflected with active or passive morphology, depending on the syntactic context (an

alternating verb), while the deponent verb *hortor* 'encourage, incite' in row b. of table 1 can only appear with passive morphology (there is no *hortō), but is syntactically active and transitive, like *amō*.

Table 1. Alternating vs. deponent verbs in Latin

	Pres.act.	Pres.pass.
a. alternating	am-**ō**	am-**or**
	'I love'	'I am loved'
b. deponent		hort-**or**
		'I encourage'

The term "deponent" comes from Latin *dē-pōnere* 'lay aside' (sc. the verb's passive, or nonactive, meaning; for a detailed discussion of history of the term in Latin see Flobert 1975). The Latin grammarians used different classification systems based partly on morphology, partly on semantics, but it is interesting that not all of these systems incorporated the idea expressed by the term *verbum dēpōnēns*, namely that morphology and meaning (or syntactic context) can fail to match. Varro, one of the earliest Latin grammarians, only distinguished between alternating and non-alternating verbs. This distinction was later replaced by a (purely morphological) distinction between active and passive, and eventually supplemented by the categories neuter, common, and deponent (see Flobert 1975: 8ff.). The latter three terms were created in an attempt to describe the behavior of verbs that did not show a morphological alternation between the "basic" voices active and passive in Latin.

Descriptively, deponents like Latin *hortor* instantiate a mismatch between morphological form and syntactic function (or more generally between "form" and "meaning"). They are therefore of potential interest to theories of the interface between syntax and morphology, the realization of abstract (morphosyntactic) features and their distribution, and the structure of the lexicon. Moreover, deponents have been used to argue in favor of theoretical devices specific to a purely morphological domain, and hence in favor of morphology as an autonomous domain of grammar. The scope and definition of this phenomenon is therefore highly relevant to morphological theory, specifically to the question of which aspects of synchronic morphology (or morphosyntax) should be covered by it.

The goal of this article is to give a survey of the phenomenon, previous theoretical approaches to deponency, and their extension to "morphological mismatches" in general. We will see that the wide array of phenomena discussed under the label deponency or "mismatch" in previous literature does not form a natural class and is therefore not susceptible to a unified explanation or generalization, except in the very broad, descriptive sense outlined

above (namely that some mismatch between form and expected function is observed). This suggests that no special explanatory devices or domains (morphological or otherwise) should be posited exclusively for deriving these mismatches.

We will also see that both the synchronic and diachronic context of any given mismatch must be considered in its analysis. The concrete definition of deponency and a strict distinction between synchronic and diachronic explananda is necessary to understand the variety of phenomena discussed under the labels "deponency" and "(morphosyntactic) mismatches".

This article is structured as follows: Section 2 discusses the problem of canonicity and its relation to the different definitions of deponency. If deponency instantiates a mismatch, it is crucial to explicitly define the corresponding "match", that is, the canonical mapping between syntax and morphology from which deponency departs. This is directly relevant to the three definitions discussed in this section (extended, broad, and narrow deponency), and the empirical coverage of the theoretical approaches that are built on these definitions. Section 3 discusses the different theoretical approaches to deponency based on whether or not they assume a special domain or explanatory device for mismatches like deponency, and whether or not they treat the mismatch as real or epiphenomenal. Section 4 briefly treats contexts in which deponency appears to be suspended, namely semi-deponency and (some) nonfinite syntactic contexts. Section 5 discusses deponency and diachrony and Section 6 contains the conclusion.

2   Canonicity and the definition of deponency

2.1   Canonicity, or the form/function problem

A crucial problem for understanding exceptions to the expected distribution of inflectional morphology is the notion of canonicity, or canonical distribution. Since the definition of deponency depends strongly on this notion, this section starts by giving a brief summary of the problem. Example (1) provides a simplified illustration of an "ideal scenario" where a syntactic context a is always realized morphologically as α, b as β, etc. (or: α is mapped to a, β to b ...).

(1)   Syntax/morphology: idealized canonical contexts

$$
\begin{array}{cccc}
morphology & \alpha & \beta & \gamma \\
 & \uparrow & \uparrow & \uparrow \\
syntax & a & b & c
\end{array}
$$
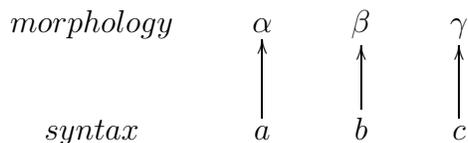
While (1) is somewhat idealized, Corbett (2007: 22)'s assessment that canonical instances "are likely to be either rare or even non-existent" seems overly pessimistic. The Latin grammarians who observed alternations such as *am-ō—am-or* (cf. table 1) termed verbs like the former "active" (from *agō* 'do, act') and verbs like the latter "passive" (from *patior* 'undergo, suffer') precisely because they observed a regular correlation between the two types of morphology with two different types of syntactic contexts. In other words, the observation (and intuition) that morphology is canonical in certain contexts is what allows us to define deviations from the expected distribution in the first place.

A complicating factor in defining canonicity is syncretism, as illustrated in (2), in which the canonical realization of the syntactic contexts a and b happens to be the same exponent, α, and the canonical realization of c, d, and e is the exponent β.

(2)   Syntax/morphology: canonical contexts + syncretism
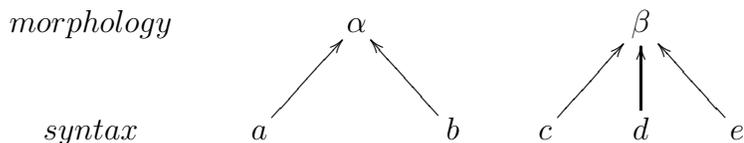
A well-known instance of this type of syncreticm is the "voice syncretism" of, e.g., Modern Greek and Albanian discussed in Embick 1998, 2004, Kallulli 2009, Alexiadou 2013, Alexiadou et al. 2015, etc., in which we find the same inflectional morphology, "nonactive", in different syntactic contexts, as illustrated in table 2. This type of voice syncretism is found in all the Indo-European languages in which deponency of the type illustrated in table 1 is usually discussed (Latin, Ancient & Modern Greek, Sanskrit). Understanding this syncretism and the canonical distribution of voice morphology in these languages is therefore crucial for defining and understanding their instances of deponency.

Table 2. Voice alternations in Modern Greek

Function	Active	nonactive
Anticausative	*sikon-o* 'raise'	*sikon-ome* 'rise'
Reflexive	*plen-o* 'wash'	*plen-ome* 'wash myself'
Self-benefactive	*promithev-o* 'supply'	*promithev-ome* 'supply myself'
Passive	*skoton-o* 'kill'	*skoton-ome* 'am killed'

The canonical contexts for nonactive morphology illustrated here (anticausative, reflexive, self-benefactive, (medio)passive; additionally also dispositional/generic middle) correspond closely to the syntactic contexts in which "weak reflexive" markers and other "middle"

morphology is generally found cross-linguistically (cf., e.g., Geniušienė 1987, Klaiman 1991, Kemmer 1993, Kaufmann 2007, Alexiadou and Doron 2012, Alexiadou 2013). Independent of the analysis of why this happens, it is therefore reasonable to assume that a verb which instantiates one of these canonical contexts and sports nonactive morphology is a canonical nonactive verb. This finally brings us to the "mismatch", illustrated in (3), in which a morpheme β, which canonically realizes the syntactic contexts c, d, and e, exceptionally (non-canonically) realizes the context b (illustrated by the dotted line) which is usually realized as α.

(3)   Syntax/morphology: mismatch

$$\begin{array}{ccccccc} morphology & & \alpha & & & \beta & \\ syntax & a & & b & c & d & e \end{array}$$
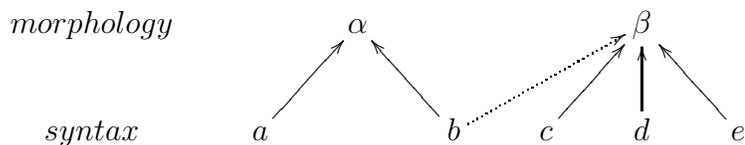
Descriptively, this is exactly what happens in Latin deponents: the morpheme β ("passive inflection") that usually realizes a particular syntactic context ("passive", though Latin "passive" morphology is in fact syncretic as well) is exceptionally found in a syntactic environment ("active") that is not canonically associated with that type of inflection. This is confirmed by the fact that agentive, transitive verbs in Latin usually take active morphology, as evidenced by the formally active synonyms or near-synonyms to Latin deponents (the same holds for Ancient & Modern Greek and Sanskrit deponents), cf. table 3.

Table 3. Active/deponent (near-)synonyms (from Grestenberger 2018a)

Language	(a) Deponent	(b) Active verb	Meaning
Latin	*hortor*	*moneō*	'encourage, incite'
Sanskrit	*grásate*	*átti*	'devours/eats'
Ancient Greek	*erúomai*	*phúlassō*	'protect, guard'
Modern Greek	*eborevome*	*adallasso*	'trade'

Minimal pairs such as the ones in table 3 pose a problem for understanding the canonical distribution of voice morphology in these languages, since there is no obvious syntactic or semantic reason for why the verbs in row (a) should surface with nonactive morphology while those in row (b) surface with active morphology.

Syntactically, deponents behave exactly like formally active, transitive verbs in taking nominative subjects and accusative objects, as in (4).

(4)   **Latin**: Deponent *hortor* 'incite, encourage, urge': Plautus, *Casina* 4.1.6–7:

senex   in culīnā   clāma-t,   **hortā-tur**   **coquōs**:   "quīn
old.NOM in kitchen shout.PRES-3SG.ACT urge.PRES-3SG.PASS cooks.ACC why.not
agi-tis   hodiē?   (...)"
do.PRES-2PL.ACT immediately

"The old man is shouting in the kitchen, he is urging on the cooks: 'Why don't you
(get to) work immediately? ...'."

With this background in mind, we can now turn to the discussion of different definitions of deponency. Since the theoretical impact and treatment of deponency depends strongly on the definition of the phenomenon, the next section summarizes the different extant definitions before discussing the theoretical approaches separately in Section 3.

2.2 Definitions of deponency

2.2.1 Form vs. property deponency

The previous discussion has implicitly assumed that only two formal levels are involved in deponency, abstract morphosyntactic features and their realization. However, in frameworks in which morphosyntactic features, their realization, and their semantic interpretation are independent modules of grammar (or: semantic interpretation is not directly read off morphosyntactic structure), mismatches can theoretically arise in different ways. Stump 2007 distinguishes between *form deponency*, in which a mismatch arises between the morphosyntactic and semantic properties of a form and its realization, and *property deponency* in which a mismatch arises between the morphosyntactic features and realization of a form and its interpretation. That is, as an instance of form deponency, Latin *hortor* would be morphosyntactically and semantically active but "wrongly" realized as passive, while as an instance of property deponency *hortor* would be a morphosyntactically passive form with passive realization, but the "wrong", namely active, meaning. These two types of deponency are illustrated in (5) for the Latin 3sg. *hortātur* (cf. ex. (4))), adapted from Stump 2007: 73 (his ex. (1)). In (5a), the meaning and feature specification of the "cell" match, but there is a mismatch with respect to the realization of the cell. In (5b), the cell and its realization match, but clash with the meaning. The mismatches are indicated with a dashed line.

(5)　　a.　*Hortātur* as a form-deponent word

　　　　Meaning:　　λe[Urging(e) & Agent (x_{SUBJ}, e)]
　　　　Cell:　　　$\langle$HORTĀRĪ, {3rd singular present imperfective *active* indicative}$\rangle$

　　　　Realization:　*hortātur*

　　　　b.　*Hortātur* as a property-deponent word

　　　　Meaning:　　λe[Urging(e) & Agent (x_{SUBJ}, e)]

　　　　Cell:　　　$\langle$HORTĀRĪ, {3rd singular present imperfective *passive* indicative}$\rangle$
　　　　Realization:　*hortātur*

Stump 2007 attempts to use this distinction to derive the difference between Latin and Sanskrit deponents in a Paradigm Function Morphology (PFM)-based framework (see 2.2.2 below). Apart from his account, the other approaches to deponency discussed in this article do not explicitly capitalize on this distinction (cf. the discussion in Müller 2013), partially because not all frameworks operate with a relatively elaborate morphological component which distinguishes paradigm cells for morphosyntactic content/"meaning", cells for form, and their realization (as PFM does, cf. Stump 2001, 2002, 2016, Stewart and Stump 2007, etc.), in which this distinction can be modeled. Another reason is the problem of defining deponency and deciding which aspects of a given mismatch (if any) need to be handled by one's theory of morphology or morphosyntax. Thus while the form/property deponency distinction may in principle be a useful testing ground for different approaches to the interplay of morphosyntactic features and their interpretation and realization, this must be left to future research.

2.2.2　Extended deponency

The editors of Baerman et al. 2007 base their collection of articles on the concept of "extended deponency" introduced by the ESRC project *Extended deponency: The right morphology in the wrong place* to cover "any mismatch between the apparent morphosyntactic value of a morphological form and its actual value in a given syntactic context.[1]" Baerman 2007 uses the description of deponency in Latin in (6) as a starting point to argue that not all morphological mismatches fulfill all the criteria of a typical Latin deponent. If the definition

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[1] `http://www.smg.surrey.ac.uk/projects/deponency/`, accessed Jan. 30, 2018.

of deponency is extended to admit cases in which one or several of the criteria in (6) do not apply, the number of cross-linguistically attested cases of extended deponency will grow exponentially, as shown by the impressive number of cases of extended deponency collected in the Surrey Deponency Databases and discussed by Baerman 2007 himself.

(6) Deponency in Latin (adapted from Baerman 2007: 2)

    a. Deponency is **a mismatch between form and function**

    b. Given that there is **a formal morphological opposition**

    c. between **active and passive**

    d. that is the **normal realization** of the corresponding functional opposition,

    e. deponents are **a lexically-specified set** of verbs whose passive forms function as actives.

    f. **The normal function is no longer available**.

(6b) captures the structuralist notion that a form-function mismatch depends on the presence of some sort of functional opposition with a canonical or "normal" realization, cf. (6d), expressed (implicitly or explicitly in) in many of the papers in Baerman et al. 2007. (6f) addresses the "concurrent defectiveness" often (but not always) encountered with deponents and which Stump (2007: 71f.) considers one of the hallmarks of *canonical deponency*: a deponent paradigm becomes defective because a particular slot is "used up" by the wrong form. Thus, Latin deponents famously do not passivize.[2] The standard functionalist explanation is that this is because the forms that would be used to express the passive—the "*r*-forms", e.g., *am-or* "am loved"—are already "used up" in deponents, where they are used as syntactically active forms, e.g., *hort-or* "I encourage". Thus, Latin deponents are defective because the passive slots in their paradigm are unexpectedly occupied by syntactically active verbs (cf., e.g., Stump 2007, Hippisley 2007, 2010). This type of analysis naturally depends on accepting the theoretical notions of "oppositions" and "'paradigms" that are implicitly or explicitly used in some (mostly lexicalist or quasi-lexicalist) theories of morphology, e.g., Williams 1994, Aronoff 1994, Stump 2001, 2002, 2016, Stewart and Stump 2007, Spencer 2013, etc., but that are rejected in "vocabulary-(item)-based theories" such as Distributed Morphology (DM; see Embick 2000, Bobaljik 2002, 2008 for a criticism of the notion of "paradigms" in morphological theory). Moreover, there is no consensus as to whether concurrent defectiveness should be considered a defining characteristic of deponency, since defectiveness or the appearance thereof can be due to different factors (see Baerman et al. 2010, Fábregas 2018). For example, Matthews 2007: 298–9 points out that a deponent like the Latin unaccusative verb *morior* 'die' is unlikely to "lack" a corresponding formally active form, whereas

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[2]But see Section 3.2.1 on the passivization properties of deponents.

transitive deponents like *sequor* 'follow' or *hortor* 'encourage' could reasonably be expected to undergo a valence alternation of some sort and therefore have formally active *and* passive forms. This suggests that argument structure, rather than affiliation with a particular paradigm, is crucial to understanding (verbal) deponency—unfortunately Matthews and the other contributors in Baerman et al. 2007 do not follow this track.

Stump 2007 solves the problem of defectiveness by distinguishing between canonical and non-canonical deponency. His defining criteria for canonical deponency are given in (7), again based on Latin deponents.

(7)   Canonical deponency (Stump 2007: 71)
        a.   Contrariness of form and meaning
        b.   Concurrent defectiveness
        c.   Lexical exceptionality

According to Stump, mismatches that display only one or two of these criteria can be considered non-canonical deponents, as an example of which he presents the Sanskrit "Ā-verbs". Traditional Sanskrit grammars distinguish between alternating verbs (*ubhayapadin-* 'both-verbs'; *ubháya-* 'both'), verbs that take only active morphology (*parasmaipadin-* 'other-verbs'; *parasmai* 'for somebody else', corresponding more or less to the Latin term *activa tantum*) and verbs that take only nonactive (or "middle") morphology (*ātmanepadin-* "for oneself-verbs"; *ātmáne* 'for oneself', corresponding more or less to the Latin term *media tantum*). These are referred to as U-verbs, P-verbs, and Ā-verbs, respectively.

Stump argues that the Sanskrit Ā-verbs are non-canonical deponents because they do not exhibit contrariness of form and meaning. Stump argues that this is because "middle" in Sanskrit is a "paradigm-dependent morphome" (morphome in the sense of Aronoff 1994: 25: "a purely morphological function", cf. Section 3.1.2) whose semantic content depends on whether or not it contrasts with active in a paradigm.

Besides the (theory-dependent) reliance on paradigms, the problem with this approach is that it relies on a descriptively and typologically unmotivated notion of what the canonical function of "middle" morphology and, more generally, the canonical distribution of active and nonactive morphology, is. The nonactive forms of U-verbs belong to one of the cross-linguistically well-established verb classes mentioned above, namely anticausative, reflexive/reciprocal, self-benefactive, and passive. Stump, on the other hand, proposes that nonactive morphology expresses the middle operator $\lambda P \lambda e[$ Affects(e, x_{SUBJ}) & $P\{e\}]$, that is, middle morphology expresses "subject affectedness" (cf. Kemmer 1993). The definition of subject affectedness is sufficiently vague to encompass the different types of subjects found with alternating nonactive verbs, like the nonactive U-verbs in column (a) of table 4: "the

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event designated by the verb has direct influence on the subject's referent" (Stump 2007: 76). However, this middle operator is supposedly present only in the middle of U-verbs, where it is in a Saussurean opposition to active morphology, but absent in Ā-verbs where there is no such opposition and middle morphology "denotes an identity function" (p. 89). The problem is that for the most part it is not easy to fathom why the nonactive U-verbs in column (a) are analyzed as having "affected subjects", while the Ā-verbs in column (b) are not.

Table 4. Sanskrit nonactive U-verbs vs. Ā-verbs

(a) non-act. U-verb		(b) Ā-verb	
vardhate	'increases, grows'	*pyāyate*	'swells, becomse full"
vahate	'drives, rides'	*manyate*	'thinks'
yajate	'sacrifices for one's own benefit'	*vṛṇīte*	'chooses'
pavate	'purifies oneself, becomes pure'	*dhavate*	'streams, flows'

This problem disappears if one dissociates the notion of canonicity (i.e., the question of which syntactic contexts synchronically require active vs. nonactive morphology) from the question of whether or not any given verb alternates, effectively reducing the active/nonactive "opposition" to an epiphenomenal property of certain verbal stems. Stump himself points out that Ā-verbs do not fulfill his third criterion for canonical deponency, lexical exceptionality, because the relative percentage of U-verbs, P-verbs, and Ā-verbs in Sanskrit suggests that they are not that exceptional. U-verbs, i.e., verbs that can take both active and nonactive inflection, are in a minority compared to P-verbs and Ā-verbs. Table 5 summarizes the distribution based on the *Dhātupaṭha* (collection of roots and verb stems) of Pāṇini and Candra given by Liebich (1922).

Table 5. Sanskrit P-, Ā-, and U-verbs, ca. 500 BCE

	# of roots	%
P	1,038	51.9
Ā	485	24.2
U	478	23.9
Total	2,001	100

In Classical Sanskrit, P-verbs comprise the largest group of verbs, while U-verbs and Ā-verbs make for about a quarter of verbs each. It is possible that this distribution reflects

the fact that the active/nonactive alternation was becoming increasingly unproductive in Sanskrit (it is lost in Middle Indic), but the comparison with languages with a similar voice system confirms that non-alternating verbs are the rule rather than the exception. For example, Alexiadou 2013 and Zombolou and Alexiadou 2014 report for Modern Greek that out of the approximately 5,500 verbs in their corpus, 1,348 (20%) are non-alternating nonactive verbs (= Ā-verbs; they do not give numbers for P-verbs and U-verbs). This distribution alone suggests that a "functional opposition" cannot be a necessary prerequisite for understanding the canonical contexts of active and nonactive morphology. Approaches in which these two sets of endings are contextual allomorphs of a verbal functional head, with nonactive specified for a particular environment and active as "elsewhere" form (e.g., Embick 1998, 2004, Kallulli 2013, Alexiadou et al. 2015, Schäfer 2017, Grestenberger 2018a etc.) have the advantage that there is no need for a functional "opposition" between the two sets, and therefore allow for a narrower definition of what constitutes a mismatch (see Sections 2.2.4 and 3.2.1 below).

The definitions of extended deponency discussed in this section lend themselves naturally to seeking instances of "feature mismatches" outside of its traditional domain, that of (Latin-like) voice systems. Baerman 2007, Corbett 2007, and Spencer 2007 discuss a variety of examples of "extended deponency" in verbs, nouns, and even adjectives across different language families (Spencer 2007 even includes "interclass mismatches" in which, for example, nouns or verbs appear to take adjectival inflection, e.g., in the Russian and Hindi periphrastic past tense forms).

For example, one of the few cases of nominal deponency[3] prominent in the literature comes from Tsez. The Tsez nouns for 'child', *xex-*, and 'woman', $\gamma^\Upsilon ana$-, use their plural forms in the singular as well. This is illustrated in table 6, where *xex-* is opposed to a regular noun, *besuro*.

Table 6. Tsez noun morphology (Corbett 2007: 36)

	besuro 'fish'		*xex-* 'child'	
	Sg.	Pl.	Sg.	Pl.
Absolutive	besuro	besuro-**bi**	xex-**bi**	xex-**bi**
Genitive 1	besuro-s	besuro-**za-s**	xex-**za-s**	xex-**za-s**
Inessive/Ergative	besur-ā	besuro-**z-ā**	xex-**z-ā**	xex-**z-ā**

Descriptively, the plural morpheme -*bi* can occur in the syntactic environment "singular"

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[3]Juge 2013: 133 notes that the instances of "verbal deponency" in the broad sense discussed in Baerman et al. 2007 far outweigh the examples of nominal or adjectival deponency.

with these two nouns, instantiating a mismatch between form and function (confirmed by singular agreement on the verb). Note that there is no "concurrent defectiveness". The fact that only two nouns exhibit this mismatch, and that one of them, *xex-*, also exhibits a concurrent switch in noun gender between singular and plural (Comrie and Polinsky in press) suggests that these nouns may need a diachronic rather than a synchronic explanation. The gender shift in particular is reminiscent of cases in which collectives of nouns are reanalyzed as singular (Span. *la guardia* f. 'watch, guard, police' → *el guardia* m. 'policeman'; Lat. *folia* (n.) 'leaves' → Span. *hoja* (f.) 'leaf'), in which case a new, productively formed plural might be expected. While this is speculative, a clearer delineation between the synchronic and the diachronic explananda in "extended deponency" approaches might take us beyond stating that *xex-bi* "is a very unusual lexeme" (Corbett 2007: 38).

In his survey of approaches to deponency, Müller 2013: 359 notes that "there is not a single approach in which deponency actually comes for free" in that all approaches require "complications or extensions of existing theoretical machinery" (ibid.). If one takes the vast variety of instances of "extended deponency" reported in the literature at face value and assumes that a single synchronic morphological mechanism must be able to derive all of them, it is hardly surprising that complications arise. In fact, the only approaches in which any and all mismatches can be handled without problems are ones which freely stipulate rules of referral (Sadler and Spencer 2001), paradigm linkage rules or "property mappings" (Stewart and Stump 2007, Stump 2016) or, as Müller 2013 does, "feature co-occurrence restrictions" (FCR) in OT, all of which amount to lexically specified "more specific rules" that block the application of a more general rule of mapping form to function. Müller's FCR, for example, are specifications in the lexical entries of deponents "that express the incompatibility with the regular inflectional exponent's morpho-syntactic features." (p. 360). This approach is similar to the PFM approaches discussed in Section 3.1 in that it can cover a broad variety of surface mismatches by stipulating lexical specifications that override or block a regular exponent, and like them it is therefore unable to distinguish between apparent mismatches that are derivable from independently needed synchronic mechanisms and mismatches that arose diachronically.

To conclude, it is difficult to make any meaningful generalizations over or determine any kind of unified cause of the instances of "extended deponency" discussed in the literature. At best, it is a useful heuristic label for tagging interesting or unexpected phenomena for future work. Nor is it possible to exclude any sort of mismatch under the "extended deponency" approach, as acknowledged by Spencer 2007: 68: "What combination of mismatches is impossible? I would say that no logical possibility can be ruled out." This seems overly pessimistic, as we have seen in this section that some of the phenomena discussed under this

label may receive alternative explanations, while others may not be mismatches at all (cf. Section 3.2.2). Moreover, the role of diachrony has been almost completely neglected in the phenomena discussed above, and in the contributions in Baerman 2007 in general (cf. the criticism in Juge 2013). Since possible diachronic developments are constrained by the properties of speakers' synchronic grammars, distinguishing between diachronic and synchronic aspects of a given problem goes some way towards "ruling out" which mismatches are in fact impossible.

2.2.3 Broad deponency, "v-deponency"

Approaches that restrict deponency to voice mismatches in the verbal domain, but explicitly or implicitly assume that deponents are exceptional because they subvert a functional opposition can be characterized as "broad deponency". This is close to Bobaljik 2007's definition of v-deponency given in (8).

(8)   v-deponent$_{def}$ (Bobaljik 2007: 176)
        Given a morphological opposition between active and nonactive that is the normal
        realization of the corresponding functional opposition, *v-deponents* are those verbs
        whose nonactive forms function as active.

Stump 2007, Hippisley 2007, Weisser 2010, 2014, and Zombolou and Alexiadou 2014 operate with (different versions of) broad deponency. Although these authors assume very different theoretical perspectives, what they have in common is that they assume that deponents are exceptional because they do not participate in a voice alternation. That is, verbs like Latin *hortor* are suspect not primarily because their argument structure and clausal syntax clashes with their morphology, but because they do not alternate between active and nonactive. The use of the term "deponent" in these approaches is more or less synonymous with *medium tantum*, the Latin term for verbs that take only "middle" (nonactive) morphology, cf. the Sanskrit "Ā-verbs". Being non-alternating is, in other words, conflated with a mismatch between form and function, often without an explicit discussion of the argument structure of the verbs in question and how that might relate to voice morphology. There is, of course, no principled reason why these two properties should be connected, and the figures discussed in section 2.2.2 suggest that non-alternating verbs are far from exceptional in languages like Sanskrit and Greek. Active and nonactive morphology in Latin, Greek, Sanskrit, etc., is found in a variety of syntactic contexts, not all of which alternate. This is discussed by Kemmer 1993 in her cross-linguistic study, Xu et al. 2007 for Latin and Zombolou and Alexiadou 2014 for Modern Greek (see also Kallulli 2013, Oikonomou 2014). While the latter initially start with a definition of deponents similar to (8) ("Some

verbs, however, do not alternate Act with NAct; they bear the NAct only without having Act-counterparts", Zombolou and Alexiadou 2014: 332), they then go on to show that the vast majority of non-alternating nonactive verbs in Modern Greek actually fall into some well-defined verb classes that partially overlap with the canonical functions of alternating nonactive verbs illustrated in table 2, namely anticausative, reflexive & reciprocal, and passive. In other words, Zombolou and Alexiadou 2014 argue that anticausative *is* a canonical context for nonactive morphology, independent of whether or not there exists an active-marked oppositional causative form. Moreover, they show that the remaining non-alternating nonactive verbs for the most part consist of experiencer or psych verbs, stative verbs, and unaccusative verbs (mostly verbs of motion like *erhome* 'come' and *afiknume* 'arrive'), in other words, verbs that are generally analyzed as lacking an external argument. Similarly, Xu et al. 2007 find that "Latin deponent verbs tend not to take physically affected objects and a Latin verb derived from a noun or adjective tends to be deponent if its meaning is non-causative" (p. 142). The verb classes discussed by these authors again contain mostly unaccusative/anticausative verbs, experiencer and psych verbs, statives, and denominal and deadjectival verbs.[4]

To summarize, the lack of an "oppositional" form alone is not enough to determine whether or not a given nonactive verb is non-canonical (a "mismatch verb") since most of the verbs in Greek-type voice systems do not alternate and recent corpus studies suggest that the majority of "v-deponents" can be considered canonical insofar as they instantiate a function that is regularly associated with nonactive morphology.

2.2.4   Narrow deponency

As we have seen, most of the verbs traditionally termed "deponents" are better understood as non-alternating, but functionally canonical, nonactive verbs. However, there is a small class of verbs in Latin, Greek, and Sanskrit (as well as in other languages with the same kind of voice system) which do not easily fit into that category and which do instantiate a genuine mismatch between syntax and morphology. Zombolou and Alexiadou 2014 note that there is a small class of "active-like deponents" which make up about 11% of their corpus of Modern Greek *media tantum*, e.g., *metahirizome* 'handle, use', *epititheme* 'attack', *arnume* 'deny', *episkeftome* 'visit', *iperaspizome* 'defend', etc. (cf. Zombolou 2004: 223, Alexiadou 2013), and which can also be identified in Hittite, Vedic Sanskrit, Homeric Greek, and Latin (Grestenberger 2014). This class consists of (mostly) transitive verbs whose surface subject

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[4]Like in Modern Greek, these are canonically nonactive if they are stative or anticausative, but there is also a large class of "act like"-verbs (*ancilla* 'handmaid' → *ancill-or* 'act like a handmaid', *fatu-us* 'silly' → *fatu-or* 'act silly', cf. Xu et al. 2007: 137f.) that could be argued to be unergative.

must be synchronically analyzed as an agent, a context which is generally agreed to be canonical for *active* morphology. The narrow definition in (9) is based on this small class of synchronic "exceptions".

(9)   Narrow deponency (Grestenberger 2018a: 502)
       In an active—nonactive voice system, a deponent is a verb with an agent subject that appears in a syntactically active context and is morphologically nonactive.

In this approach, deponents are defined as agentive verbs that unexpectedly take nonactive morphology. While this definition is similar to Bobaljik's definition of v-deponency, it differs from all other definitions discussed so far in that it makes explicit reference to argument structure. That is, deponents are exceptional not because they do not alternate, and not because they are transitive (not all of them are), but because they have the "wrong" type of surface subject, namely an agent.

This definition is couched in a DM-approach in which a verb is spelled out with nonactive morphology if it does not have an external argument (an agent), cf. Embick 1998, 2004, Kallulli 2007, 2013, Alexiadou 2013, Alexiadou et al. 2015. In this approach, nonactive morphology can arise in different syntactic contexts that happen to share the property of not having an agent subject. This has the advantage of avoiding the problem of having to find a unified semantic context for the many different canonical uses of nonactive morphology by reducing its distribution to a fairly simple (and testable) structural condition: the merger of an external argument. This approach is discussed in more detail in Section 3.2.1.

While this definition sharply delineates the boundaries of the term "deponency" in the type of languages in which it has traditionally been studied, it obviously has nothing to say about many of the other phenomena that fall under the "extended deponency" definitions discussed in Section 2.2.2. However, given that it is unclear that this is indeed a natural class, this may not necessarily be considered a drawback.

3   Theoretical approaches

3.1   Deponency as evidence that morphology is autonomous

The definitions of "extended deponency" discussed in section 2.2.2 above are often used as evidence in favor of morphology as an autonomous domain, or build on the assumption that morphology is autonomous: since these mismatches "extend" across very different morphosyntactic categories in a variety of unrelated languages, the common denominator must be some overarching domain-specific mechanism capable of capturing these various mismatches, the argument goes. In this section, I discuss different theoretical approaches of which this

assumption is true, in particular Stewart and Stump 2007, Stump 2016, Sadler and Spencer 2001, and Kiparsky 2005. These are subdivided into whether the mismatch attributed to deponency is considered "real", that is, a genuine exception or deviation (Section 3.2.1), or "spurious" (Section 3.1.2), that is, epiphenomenal of independently stipulated mechanisms. This distinction follows Müller (2013: 357ff.), who describes approaches which argue that there is no mismatch and that deponents have just been misanalyzed as "spurious deponency" approaches. He distinguishes between spurious morphosyntactic deponency and spurious morphomic deponency. In spurious morphosyntactic deponency, it is usually argued that a given mismatch can be derived from independently needed synchronic mechanisms governing the realization of syntactic nodes in particular contexts. Examples of such an approach are Bobaljik 2007, Weisser 2010, Kallulli 2013, Alexiadou 2013, and Zombolou and Alexiadou 2014; these are discussed in Section 3.2.2. On the other hand, spurious morphomic deponency approaches share the assumption of an autonomous morphological domain or mechanism and are therefore discussed in this section.

3.1.1   The mismatch is real

To start, consider a much-discussed instance of alleged "extended deponency" found in the older Germanic languages: tense mismatches. In so-called preterite-presents in Germanic, certain verb stems that are functionally *present* tense verbs inflect with a particular set of *past* tense endings (that of the "strong" verbs), as illustrated with an example from Gothic in table 7 (excluding the forms of the dual).

Table 7. Gothic preterite-presents (Birkmann 1987: 94, after Baerman 2007: 17)

		strong verb 'grip'	weak verb 'have'	preterit-present 'know'
present indic.	1sg	greip-a	hab-a	**wait**
	2sg	greip-is	haba-is	**wais-t**
	3sg	greip-iþ	haba-iþ	**wait**
	1pl	greip-am	hab-am	**wit-um**
	2pl	greip-iþ	haba-iþ	**wit-uþ**
	3pl	greip-and	hab-and	**wit-un**
preterite indic.	1sg	**graip**	habai-da	wis-sa (s-s < *d-d)
	2sg	**graip-t**	habai-des	wis-seis
	3sg	**graip**	habai-da	wis-sa
	1pl	**grip-um**	habai-dedum	wis-sedum
	2pl	**grip-uþ**	habai-deduþ	wis-seduþ
	3pl	**grip-un**	habai-dedun	wis-sedun

The present indicative of the preterite-present 'know' inflects with the same endings used by the strong verb 'grip' in the preterite, indicated by the bolded forms in the table. However, 'know' is not defective, since it does form a preterite using the endings of a "weak preterite" like that of 'have'. Baerman (2007: 16–17) describes this as "deponency + heteroclisis" (heteroclisis: "the mixture of different inflection classes within a single paradigm", Baerman 2007: 16, in this case strong preterit endings in the present, weak preterit endings in the preterit of 'to know'), as does Stump (2016) in discussing the preterite-presents of Old English. What is missing in their discussion is the diachronic component: Both the strong verb preterite indicative in table 7 and the present indicative of the preterite-present formally descend from the Proto-Indo-European perfect. While for the most part the perfect developed into a past tense in Germanic—precisely the strong preterite of table 7—a small class of verbs which made stative perfects in PIE developed into presents, resulting in the closed class of preterite-presents (cf. Bammesberger 1986). Synchronically, the Germanic preterite-presents are treated as a type of irregular present, which is shown precisely by the fact that they make a regular, synchronically productive weak preterite. That is, the "deponency" aspect of these verbs is due to a specific semantic shift during their diachronic development, while the apparent "heteroclisis" aspect is due to the productive rules of synchronic grammar—specifically, the formation of regular preterite forms. To treat this part of the inflection of Gothic 'know' as an explanandum is to miss the point of distinguishing between synchronically productive rules and lexical exceptions. The real exception, or

mismatch, is the present indicative of 'know', which does bear the (synchronically unexpected) strong preterite inflection. Stump 2016 proposes a solution in Paradigm Function Morphology 2 (PFM2) for the related Old English preterite-presents. Paradigm Function Morphology uses paradigm linkage rules to match a given cell of a "content paradigm" (containing morphosyntactic information such as Case, Number, Gender, etc.) of a lexeme to a corresponding cell of a "form paradigm" (containing the full set of morphological forms) of that lexeme. These cells are then realized via realization rules. In PFM2, these realization rules are codified as a third type of paradigm, the "realized paradigm" of a lexeme. In the canonical, default case, there is an isomorphic relationship between a lexeme's content, form, and realized paradigm, expressed through the "universal default rule of paradigm linkage" (PFM) or default property mappings (pm) from property sets of content cells to property sets of form cells (PFM2).

The default isomorphism between the content and the form paradigms makes one question the need to posit two types of paradigm in the first place, which Stewart and Stump 2007: 393 explicitly acknowledge: "In those instances in which the default rule (...) has effect, the distinction seems genuinely redundant." That is, this theory is built on the assumption that there is a dedicated morphological component for handling "exceptions" such as deponency, syncretism, heteroclisis, etc. (cf. Stump 2001, 2016, Stewart and Stump 2007), i.e., cases in which the two paradigms are *not* isomorphic. These are indeed handled quite easily, namely by overriding the default rule with a more specific paradigm linkage rule. This is illustrated in table 8 with an example of the paradigm linkage for a non-deponent active verb (*moneō*, inf. *monēre* 'advise') and a deponent verb (*fateor*, inf. *fatērī*) in Latin. (10) gives the corresponding paradigm linkage rule blocking the default rule.

Table 8. Paradigm linkage for a non-deponent and a deponent verb in Latin
(Stewart and Stump 2007: 394)

Lexemes	Content cells	Form correspondents	Realizations
MONĒRE 'advise'	⟨MONĒRE, { 1 sg pres **act** indic }⟩	⟨mon, { 1 sg pres **act** indic }⟩	moneō
FATĒRĪ 'confess'	⟨FATĒRĪ, { 1 sg pres **act** indic }⟩	⟨fat, { 1 sg pres **pass** indic }⟩	fateor

(10)   Paradigm linkage rule for Latin deponents (Stewart and Stump 2007: 394)
        Where L is a deponent verb having a root R, ⟨L,{active...}⟩ ⇒ ⟨R,{passive...}⟩

Since there are no constraints on which content cells can be linked to which form cells, this

analysis can easily be extended to the Germanic forms discussed above, whose content cells containing the value 'present' are linked to the form cells containing the value 'past' (or 'preterite'). Stump achieves this through the property mapping in (11).

(11)   Property mapping for Old English preterite-presents (adapted from Stump 2016: 43)

    a. $pm2(\sigma:\{\textrm{PRS}\}) = pm1(\sigma[\textrm{ PRS} \rightarrow \textrm{PST }])$;

    b. $pm2(\sigma:\{\textrm{PST}\}) = pm1(\sigma) \cup \{\textrm{PRETPRES }\}$;

    c.   and by default, $pm2(\sigma) = pm1(\sigma)$.

Pm1 is the general property mapping for regular Old English verbs, *pm2* the more specific one that derives preterite-presents. (11a) maps their present paradigm to past tense forms, (11b-c) ensure that their past tense paradigms surface with regular, weak preterite morphology (as specified by *pm1*).

As in the Latin example in table 8, this results in the right surface form, because the mapping mechanism is basically unconstrained: any possible mismatch could be modeled using a specific property mapping overriding a default (such as *pm2* in (11)), as long as the more specific property mapping maps to something already present in the lexeme's form paradigm.[5] The result is a trade-off between empirical coverage (excellent) and restrictiveness/predictive power (poor).[6] Moreover, to make (11) work, we need to assume the existence of a content paradigm without a corresponding form paradigm (for the present indicative), and, besides the preterite stems B and C (morphologically conditioned variants of the strong preterite stem), a "third" preterite stem D, which surfaces in the weak preterite of preterit-presents ("An ordinary verb has two past-tense stems (...), but a preterite-present verb has three ...", Stump 2016: 46). This is because preterite-presents are not "defective" like Latin deponents (where the passive "content paradigm" is apparently missing), but do actually form preterites, namely the synchronically productive weak preterite. Therefore a second preterite form paradigm is needed to derive the (regular) past tense forms of preterite-present verbs (cf. section 5 on "virtual paradigms"). The fact that this approach does not make a principled distinction between the synchronic and the diachronic aspects of, e.g., the verbal morphology in table 7 therefore significantly complicates the resulting account.

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[5]See Embick 2000: 222ff. for a similar criticism of paradigm-based approaches, in particular Aronoff 1994 and Börjars et al. 1996, and their handling of the Latin synthetic vs. analytic perfect distinction.

[6]Though an anonymous reviewer has pointed out that predictive power is not necessarily a tenet of PFM.

3.1.2 The mismatch is not real: spurious morphomic deponency

The two approaches discussed in this section (Sadler and Spencer 2001 and Kiparsky 2005) are similar to the PFM approaches discussed in the previous section in that they presuppose an autonomous domain or mechanism of word formation. "Active" and "passive" inflection in languages like Latin are treated not as (morpho)syntactic features that are "active" in the syntax, but as "conjugational" features (like inflection class features), i.e., as *morphomic* (cf. Aronoff 1994): an intermediate (and purely morphological) level between morphosyntax and phonological realization.

Kiparsky 2005's treatment of deponency in Latin exemplifies some aspects of this type of approach. Kiparsky assumes a version of v-deponency in Latin and treats alternating, non-alternating active, and non-alternating nonactive verbs as three separate, lexically specified stem classes. That is, verbal stems can be unspecified or specified as [–Passive] or as [+Passive]. Inflectional endings, too, are specified as [+Passive] or [–Passive], or can be unspecified, cf. (12).

(12)   [±passive] as a morphomic feature in Latin (Kiparsky 2005: 121–2)

    a.   Verb stems

        (i)   Unspecified: alternating verbs (e.g., *amō* 'love')

        (ii)   [+Passive]: deponents

        (iii) [–Passive]: *activa tantum* ("P-verbs")

    b.   Endings

        (i)   Unspecified: indifferent endings (e.g. pres.ptcp. *-ns*)

        (ii)   [+Passive]: passive endings

        (iii) [–Passive]: active endings

A [–Passive] verb stem can only combine with [–Passive] endings, a [+Passive] verb stem can only combine with [+Passive] endings, and an unspecified verb stem can combine with either set of endings. In the latter case, "[+Passive] inflections trigger one or more of the operations on the verb's argument structure (...), forming passives, as well as possibly reflexives, reciprocals, and inchoatives, depending on further, partly idiosyncratic, properties of the verb." (Kiparsky 2005: 122). These operations on argument structure presumably take place in the lexicon, since Kiparsky argues that "there is no "active meaning" or "passive content", nor indeed any syntactically relevant feature PASSIVE in any language." (p. 126). Given that both the specification of the verb stems and the (limited) argument structure operations effected by the [+Passive] endings are strictly lexically determined, there is no mismatch in this approach. Whether or not a [+Passive] or [–Passive] feature is present on

a verb stem is completely arbitrary since at this level the features are purely morphomic. However, this comes at a cost: rather than saying that deponent verbs are lexically specified as somehow idiosyncratic, almost *all* Latin verb stems are now lexically specified as [±Passive], and the remainder are subject to unspecified argument structure operations that depend on "further, partly idiosyncratic, properties of the verb." This leaves little room for any meaningful generalizations with respect to the types of verb classes that take active vs. nonactive morphology, which have been discussed both in the typological and theoretical literature on the subject (cf. Sections 2.1, 2.2.2 and 2.2.3), or with respect to which types of verbs undergo which types of valency alternations.

Somewhat similarly, Sadler and Spencer 2001 distinguish between syntactic s-features and morphological m-features. The first belong to f-structure, a syntactic level of representation of functional features (tense, aspect, person, number, etc.), the latter to m-structure, an autonomous morphological level. Like PFM, on which it is based, this approach allows the dissociation of "content" (s-features) from its morphological expression (m-features). Deponents are handled by stipulating a rule of referral (in the sense of Stump 2001) which triggers the realization of the (m-Voice) feature Active as formally passive, (13).

(13)   Rule of referral for Latin deponents & semi-deponents, Sadler and Spencer 2001: 91:
       If lexeme L is marked [Class:Deponent], then for all feature sets σ, if
       ([Class:Deponent:Semi] & [Asp:Perf]) or [Class:Deponent:Full] ⊂ σ then:
       [m-Voice:Active] ⇒ [m-Voice:Passive]

While Sadler and Spencer 2001 emphasize that s-features and m-features "are completely different formal objects" (p. 85), they do acknowledge that "in languages with rich morphology, especially, there is frequently an (apparently) trivial mapping between the two sets of features." (p. 84). This, together with the unconstrained nature of rules of referral like (13), leaves this approach open to the same criticism that was discussed in Sections 2.2.2 and 3.1.1 on "extended deponency" and PFM accounts thereof.

3.2   Deponency is not evidence that morphology is autonomous

3.2.1   ...but the mismatch is real

We have already seen some evidence in favor of a "narrow" definition of deponency in languages with an active/nonactive voice system in Section 2.2.4. This definition, repeated in (14), picks out a small class of agentive, but unexpectedly formally nonactive verbs and explicitly refers to the argument structure of the offending verbs.

(14)   Narrow deponency
        In an active—nonactive voice system, a deponent is a verb with an agent subject
        that appears in a syntactically active context and is morphologically nonactive.

In Grestenberger 2018a, this definition is then used to argue that nonactive morphology
in languages like Greek, Latin, and Sanskrit is the postsyntactic realization of the functional
head Voice[-ext.arg.], based on Embick 1998, 2004, and especially Alexiadou et al. 2015. The
latter assume that the external argument of unergative verbs is merged in the specifier of
the functional projection Voice and argue that in Greek-type languages, "a Voice head is
spelled out with nonactive morphology [...] if it lacks a specifier." (Alexiadou et al. 2015:
101). Their Spell-Out rule for Voice is given in (15), based on that of Embick 2004: 150.

(15)   Voice → Voice[NonAct]/_ No DP specifier

Since this is a Spell-Out rule, different constructions may lack an agent argument for different
reasons (passive vs. reflexive vs. anticausative, etc.). Crucially, the Spell-Out condition is
blind to the semantics of Voice, explaining the observed voice syncretism.
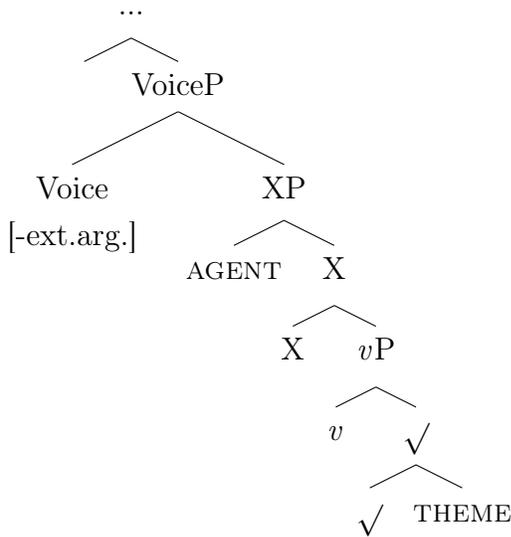
    Under this view of voice morphology in Greek-type languages, [NAct] is the realization of
Voice in a particular context, whereas active morphology emerges in the absence of this con-
text. This approach dispenses with the need to find some sort of "functional opposition" as-
sociated with each of the two values, and explains why "active" morphology is found not only
on transitive unergative verbs, but also on quite a large class of non-alternating unaccusative
verbs (many of the P-verbs discussed in section 2.2.2 are unaccusative), which have been
argued to lack the Voice layer entirely and therefore surface with active as Elsewhere mor-
phology (e.g., Alexiadou and Anagnostopoulou 2004, Schäfer 2008, Alexiadou et al. 2015).[7]

    While canonical agents are introduced by the functional projection VoiceP, applicative,
benefactive and experiencer arguments are introduced by dedicated functional projections
below VoiceP. Grestenberger 2014, 2018a argues that deponents in the narrow sense are verbs
with non-canonical, "low" agents which are likewise introduced below VoiceP. Diachronically,
they arose from reanalyzed benefactive or experiencer arguments. In "voice syncretism" lan-
guages in which nonactive morphology realizes Voice without a specifier (Voice[-ext.arg]), a
non-canonical "low agent" will therefore trigger nonactive morphology, like experiencer and
benefactive arguments do. This is illustrated in (16) ("XP" is used as a stand-in for the
semantically bleached functional projection introducing the "low agent", formerly Appl_BEN).

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[7]But note that there are different types of unaccusatives, and in particular anticausatives, in these lan-
guages, some of which regularly surface with nonactive morphology. That is, not all anticausatives lack the
Voice layer (cf. especially Alexiadou and Anagnostopoulou 2004 and Schäfer 2008 for discussion.

(16)   "Narrow deponency" (Grestenberger 2018a)

```
              ...
              /\
           VoiceP
           /    \
       Voice     XP
     [-ext.arg.] /  \
             AGENT   X
                    /  \
                   X    vP
                       /  \
                      v    √
                          /  \
                         √   THEME
```

While deponents are lexically idiosyncratic under this approach, their mismatch behavior is predicted to arise only in "verbal" environments that include VoiceP and a non-canonical (= diachronically reanalyzed) agent.[8] These two conditions on narrow deponency enable us to give a more fine-grained definition of this phenomenon than in previous accounts in which "deponency" refers to nonactive verbs independent of their argument structure.

That deponents in the narrow sense are agentive verbs with an agent subject has been

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[8]This analysis is couched in Distributed Morphology (DM), where the output of a syntactic computation is realized by Vocabulary Items (VIs) competing for insertion at Spell-Out. While it is usually assumed that these VIs are subject to Late Insertion, Embick (2000) has claimed that Latin-like deponency is an argument in favor of Early Insertion of (at least) roots. This argument is based on the assumption that deponent roots are lexically specified for [pass], as in (i), and must therefore be visible throughout the derivation in order to ensure that they surface with passive morphology.

(i) $\sqrt{Root}$[pass]

On regular passive verbs, on the other hand, [pass] is a feature on v (= equivalent to Alexiadou et al. 2015's Voice in the analysis above) that blocks an external argument from being merged, resulting in a canonical passive. While [pass] on roots is not interpreted, its presence throughout the syntactic derivation results in the same operations as with v[pass]. Crucially, this feature will block verb movement to T in the same way as v[pass], resulting in analytic forms in the same contexts as in non-deponent verbs. As Haugen and Siddiqi 2013 point out, this is not an argument for early insertion of fully (i.e., phonologically) specified roots per se, only for the presence of "lexically specific syntactic features" (p. 512). Moreover, the analysis of Grestenberger 2014, 2018a dispenses with the need for a feature [pass] on deponent roots *or* in the syntax, since their idiosyncrasy results from the way their arguments are projected ("low agents"). Haugen and Siddiqi 2013: 512f. propose that deponent roots are licensed for Vocabulary Insertion (VI) only under a $\sqrt{}$[pass] node. If we modify this to "deponent roots (or stems) are licensed for VI only in the context of an agentive v (or XP)", we keep the observation that deponents are lexically idiosyncratic, but all their properties throughout the derivation follow from independently needed mechanisms, e.g., licensing of roots or "stems" for VI in particular contexts (independently needed as not all verbs are compatible with an applicative projection, or Voice[+ext.arg.], etc.), analytic vs. synthetic realization, and so on.

argued by Embick 1997, Embick 2000, Grestenberger 2014, Grestenberger 2018a; the main arguments are summarized in the following. First, in Latin, Sanskrit, Ancient Greek and Modern Greek, transitive deponents (in the narrow sense) form agent nouns which are formally and syntactically identical to those made from formally active agentive verbs. Examples from Latin and Sanskrit are given in table 9 (cf. Grestenberger 2018a).

Table 9. Latin and Sanskrit agent nouns from deponents

	a. active, non-deponent		b. deponent	
	verb	agent noun	verb	agent noun
Lat.	*am-ō* 'love'	*amā-tor* 'lover'	*hort-or* 'urge, incite'	*hortā-tor* 'inciter'
	vinc-ō 'conquer'	*vic-tor* 'conqueror'	*vēn-or* 'hunt'	*vēnā-tor* 'hunter'
Skt.	*rákṣ-a-ti* 'protects'	*rakṣi-tár-* 'protector'	*trā́-ya-te* 'protects'	*trā-tár-* 'protector'
	náy-a-ti 'leads'	*ne-tár-* 'leader'	*ī́ṭ-ṭe* 'praises'	*ī́ḍi-tár-* 'praiser'

Second, deponents in the narrow sense are compatible with agent-oriented adverbs, and third, deponents can form passives under certain circumstances. This point is especially important given that the supposed lack of passivization of deponent verbs has been used to argue that their "defectiveness" arises from the fact that they occupy or are mapped to the passive slot in a particular lexeme's paradigm (e.g., Corbett 2007, Hippisley 2007) or share certain underlying structural features with canonical passives (Kallulli 2013). However, if deponents are syntactically active agentive verbs, they should be able to passivize given the right conditions. That this is correct is shown clearly in languages that have designated passive morphology that is distinct from the morphology that deponents usually take. In the Sanskrit imperfective ("present") stem, a passive morpheme that is distinct from the nonactive morphology on the endings is available to make passives. In the Sanskrit present, active present verbs take the active endings, "middle" verbs (anticausatives, reflexives, self-benefactives, etc.) take the nonactive ("middle") endings, and passive verbs take the passive suffix *-yá-* together with the nonactive endings. This is illustrated in table 10.

Table 10. Passivization in Sanskrit: Alternating vs. deponent verbs

	a. pres.act.	b. pres.mid.	c. pres.pass.
Alternating	*bhár-a-ti* carry-V-3SG.ACT 'carries sth.'	*bhár-a-te* carry-V-3SG.NAct 'carries sth. for oneself'	*bhri-yá-te* carry-PASS-3SG.NAct 'is being carried'
Deponent		*íḍ-Ø-te* ([íṭṭe]) praise-V-3SG.NAct 'praises sbdy./sth.'	*īḍ-yá-te* praise-PASS-3SG.NAct 'is being praised'

Table 10 shows that deponents, even though they have no formally active forms, can form passives using the same suffix -*yá*- as the verbs that do have formally active, transitive forms. This confirms that the argument structure of these verbs can become the input to passivization and that the availability of "active" morphology is not a necessary precondition for passivization: the active alternating verbs in column (a) have the same argument structure as the deponent verbs in column (b) and behave identically with respect to passivization in column (c). The same observation holds for deponents in Classical Greek, which can be passivized in the aorist stem using the suffix -*thē*- (cf. Stahl 1907: 73f., Grestenberger 2018a). The conclusion must therefore be that deponents, like formally active transitive verbs, can passivize if distinct passive morphology is available.

A related question is whether we should expect languages like Latin to allow deponents to passivize, given that no designated passive morphology (other than the one causing the mismatch) is available in Latin. It is often claimed that some Latin deponents can have both active and passive readings (e.g., Hofmann 1910: 12ff., 32ff., Flobert 1975, Embick 2000: 194, Matthews 2007), and Latin grammarians starting with Aulus Gellius distinguished a class of "common" verbs (*verba commūnia*) that are morphologically nonactive, but can be used as syntactically active or passive verbs. An example in which the verb *hortor*, normally a transitive deponent, is used as a syntactically passive verb, is given in (17).

(17)   Varro ap. Prisc. II, 387:

ab amīcīs   hortā-rētur
by friends.ABL urge-3SG.IPF.SUBJ.PASS

"He was urged by his friends"

In principle, this use is fully expected in "voice syncretism" languages in which the same morphological exponent (nonactive) is canonically found in different syntactic environments (cf. table 2 and the discussion in sections 2.1 and 2.2.3). For example, depending on the

verb class, Modern Greek and Albanian nonactive forms are formally ambiguous between anticausative and passive readings (these can be distinguished via different syntactic tests, cf. Kallulli 2007, 2013, Alexiadou and Doron 2012, 2015, etc.), and Modern Greek nonactive reflexives like *plenome* 'I wash myself' can also have a passive interpretation in the right context (e.g., being washed in a hospital). This "ambiguity" is also fully expected under the realizational approach to voice morphology in Greek-type languages discussed above.[9]

To summarize, the approach discussed in this section assumes that there is a mismatch in deponents in the "narrow" sense, but this is caused by the interaction of diachronic and synchronic mechanisms: the reanalysis of a "low" experiencer or benefactive argument as agent on the one hand, and the synchronically regular, "canonical" rule for spelling out the functional head Voice in (15). It thereby differs from the similar approaches of Bobaljik 2007 and Alexiadou 2013 (see Section 3.2.2), who derive apparent instances of v-deponency entirely from synchronic mechanisms.

3.2.2   … but the mismatch is not real: spurious morphosyntactic deponency

Müller (2013: 357) characterizes approaches which argue that "there is in fact no mismatch" without assuming an independent morphological or morphomic level of representation as "spurious morphosyntactic deponency". An example of such an approach is Bobaljik 2007, who uses an apparent case of deponency in Chukchi (Chukotko-Kamchatkan) to argue that deponency cannot be used as evidence for "special devices in an autonomous morphological component" (p. 176). In the Chukchi Spurious Antipassive (SAP), (18), a syntactically active, transitive clause with an ergative-marked subject and an absolutive-marked object surfaces with a verb with an antipassive suffix, which usually indicates demotion of the object with concurrent absolutive marking of the subject.

(18)   Chukchi SAP (Bobaljik 2007: 178)

ə-nan   γəm   Ø-**ine**-ɬʔu-γʔi
he-ERG I(ABS) 3SG.SUB(I)-**AP**-see-3SG.SUB(I)

'He saw me.'

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[9]A caveat concerning forms like (17) is that it is also possible that a deponent has been reanalyzed as a regular, alternating verb, (meaning that a new active, transitive form exists besides a formally and functionally passive form). The passive of a 'regularized' ex-deponent would naturally look exactly like its former deponent version; see Lavidas and Papangeli 2007, Lavidas 2009 for the regularization/loss and creation of deponents in the history of Greek and Roussou and Tsimpli 2007: 149f. on Modern Greek. Moreover, Flobert (1975: 23ff.) points out that the category of *verba commūnia* was added as a third voice category by the Latin grammarians *before* they introduced the deponent category, and that it is likely that it was coined as a formal equivalent of the "middle" category described by the Greek grammarians, rather than a productive feature of Latin at that time.

At first glance, this is similar to the deponent cases illustrated in table 3, except that nonactive morphology in Greek, Latin, and Sanskrit can occur in canonical transitive contexts as well as in intransitive ones, while the antipassive marker of Chukchi normally exclusively signals an intransitive clause. Moreover, the Chukchi SAP is not specific to particular lexemes like deponency is in Latin, Greek, and Sanskrit, but surfaces with *all* verbs when a particular subject-object agreement relation is found (namely 3sg.S > 1sg.O, as in (18), 2S > 1sgO, and 2S > 1plO). Bobaljik proposes that this is due to "inverse filters" for these particular feature combinations that operate post-syntactically in the T-domain and delete the higher copy of the object DP that has moved into the TP, leading to the activation of the lower copy in its base position. Similarly to nonactive morphology in the approach discussed in Section 3.2.1 above, antipassive morphology signals rather than causes a particular syntactic configuration in Bobaljik's analysis, namely "as the *exponent* or *spell out* of the v head when there is an object in its local domain" (Bobaljik 2007: 188). Therefore the deletion of the higher copy and activation of the lower copy of the object triggers the realization of antipassive morphology, even though the clause is syntactically active and transitive. Bobaljik concludes that v-deponency as defined in (8) is merely a descriptive label, "but does not pick out a natural class of phenomena with a common underlying analysis" (p. 197).

A different "spurious deponency" approach is proposed by Alexiadou 2013, Oikonomou 2014, and Zombolou and Alexiadou 2014, who argue that *all* non-alternating transitive nonactive verbs in Modern Greek can be analyzed as experiencer or self-benefactive verbs whose surface subject is base-generated below VoiceP (in ApplP or a lower PP), e.g., *fevome* 'fear', *esthanome* 'feel', *gevome* 'taste', etc. The self-benefactive or indirect reflexive use is also a well-attested canonical function of nonactive morphology in Ancient Greek and Sanskrit. This suggests that at least some transitive nonactive verbs in these languages could be considered canonical. Since these verbs do not have a canonical external argument merged in Spec.VoiceP, they surface with nonactive morphology by the Spell-Out rule in (14). The mismatch is only apparent and arises because a surface transitive structure is associated with nonactive morphology, which is usually (but not exclusively) found in intransitive constructions. In the same vein, Kallulli 2013 points out the similarity between Modern Albanian deponents (in the broad sense) and inherently reflexive verbs in Germanic and Romance languages (they do not alternate, they can be transitive, they are productive for certain deadjectival and denominal verb classes) and argues that both are due to an "actor initiation feature" on v in the absence of an external argument. The realization of nonactive morphology itself follows from independent considerations concerning the canonical distribution of voice morphology in both approaches. However, as discussed in section 3.2.1, Grestenberger 2014, 2016b, 2018a provides several arguments against analyzing *all* deponents as synchronic

experiencer verbs, based on previous observations by Embick on Modern Greek and Latin (Embick 1997: 216f., 2000: 194).

To conclude, while some mismatches are undoubtedly "spurious" in the sense of Bobaljik 2007 and Müller 2013 (they can be derived entirely from independently needed *synchronic* rules of a language), this is not true of all instances of deponency, and crucially not of narrow deponency as defined in (14).

4 Context-sensitive deponency: semi-deponents and deponents in nonfinite contexts

This section briefly discusses two cases in which deponency appears to be suspended under certain circumstances, or surfaces only in particular syntactic contexts. The first are semi-deponents, verbs which are deponent only in particular tense/aspect stems. The second, less researched case, concerns instances in which deponency is apparently suspended in nonfinite environments, especially participles.

4.1 Semi-deponents in Greek and Latin

Semi-deponents are verbs that display a mismatch between form and function only in a particular environment (usually a particular tense/aspect stem), but are otherwise regular, canonical verbs. Table 11 compares an alternating, a deponent, and a semi-deponent verb in Latin. Alternating verbs have synthetic forms in the present active and passive and the perfect active, but the perfect passive is famously analytic (row (a)). Deponents, which lack the formally active forms entirely, have a synthetic formally nonactive/passive present and an analytic perfect (row (b)). Semi-deponents like *gaudeō* (row (c)) have a synthetic, formally *active* present, but an analytic, formally *nonactive* perfect.

Table 11. Alternating, deponent verbs, and semi-deponent verbs in Latin

	Pres.act.	Pres.pass.	Perf.act.	Perf.pass.
a. alternating	am-ō	am-or	am-āv-ī	amā-tus/-ta sum
	'I love'	'I am loved'	'I have loved'	'I have been loved'
b. deponent		hort-or		hortā-tus/-ta sum
		'I encourage'		'I have encouraged'
c. semi-deponent	gaude-ō			gāvī-sus/-sa sum
	'I enjoy'			'I have enjoyed'

Table 12. Latin semi-deponents

Active present	nonactive perfect	Meaning
gaudeō	*gāvīsus sum*	'rejoice, am glad'
audeō	*ausus sum*	'dare, am bold'
soleō	*solitus sum*	'am accustomed to'
fīdō	*fīsus sum*	'trust'

In approaches in which mismatches between "paradigm cells" can be relatively freely stipulated via rules of referrals or overrides (e.g., Sadler and Spencer 2001, Hippisley 2007, Hippisley 2010, Stewart and Stump 2007, Stump 2016), semi-deponents can be handled easily by specifying a "subcontext" of deponency for semi-deponent verbs (cf. Sadler and Spencer 2001's rule of referral in section 3.1.2). Given that there is no restriction on what can trigger deponency in these analyses, "perfective" is as good a context as any for triggering a mismatch. However, this approach fails to capture the differences between the attested instances of semi-deponency.

Thus in the often-cited Latin case, the four verbs in table 12 are actually the only ones in Latin exhibiting this pattern (see Flobert 1975: 496ff.), and they do not fall under the definition of narrow deponency given in section 3.2.1, i.e., their surface subject is not an agent (they are all experiencer verbs). Three of them furthermore also originally had formally active, synthetic perfects, although the age of these is debated (*gaudeō*: *gāvīsī*, *audeō*: *ausī*, *soleō*: *soluī*, cf. Livingston 2004: 38f.). Either way, these verbs are clearly lexically exceptional and therefore very different from the case of the Classical Greek future "semi-deponents". The Greek future suffix *-se/o-* regularly triggers nonactive morphology for a wide variety of verbs whose present and aorist stems are formally active (or alternating), cf. table 13.

Table 13. Classical Greek semi-deponents (future)

Active present	nonactive future	Meaning
aeídō	*aeísomai*	'(will) sing'
akoúō	*akoúsomai*	'(will) hear'
baínō	*bḗsomai*	'(will) walk, go'
gignṓskō	*gnṓsomai*	'(will) know'
pī́nō	*pī́omai*	'(will) drink'

In this case, nonactive morphology seems to be productive and quite probably canonical in this particular context; the semi-deponency seen in the Greek future may therefore be

similar to Bobaljik 2007's example of spurious morphosyntactic deponency: there is an independently established synchronic mechanism that motivates it, contrary to what we see in Latin "semi-deponents".[10] This suggests that "semi-deponents" are not necessarily a natural class and can result from very different synchronic and diachronic factors, just like "full" deponents.

4.2 Deponency and finiteness: Latin participles

In addition to its semi-deponents, Latin moreover apparently suspends the mismatch between form and function in some participial forms of its deponents. In the present tense, Latin deponents use the same "active" participial suffix, *-ns*, as verbs with formally active finite present forms. Descriptively, the mismatch appears to be suspended. The bolded forms in table 14 illustrate this pattern.

Table 14. Latin present & perfect participles

	Present			Perfect	
	act.	pass.	ptcp.	act.	pass.
Altern.	*am-ō*	*am-or*	**amā-ns**	*am-āv-ī*	*amātus sum*
	'I love'	'I am loved'	'loving'	'I have loved'	'I was loved'
Dep.		*hort-or*	**hortā-ns**		*hortātus sum*
		'I encourage'	'encouraging'		'I have encouraged'

This pattern could be described as semi-deponency triggered by finiteness (a link between deponency and finiteness is tentatively suggested in Papangeli and Lavidas 2009 and Pesetsky 2009). However, Latin *perfect* participles of deponents preserve the mismatch: They are descriptively morphologically nonactive (the *tus*-forms are usually classified as passive participles), but syntactically active and occur in the same syntactically active contexts as the corresponding finite forms, with an accusative object and a nominative subject, (19).

(19)   Deponent *sequor* 'follow', perf.ptcp. *secūtus* (Livy, *Ab urbe condita* 4.20.5):

omnēs ante   mē **auctōrēs**   **secūtus**,   ...
all.ACC before me authors.ACC followed.PTCP.NOM.SG.M

"Having followed all authors before me, ..." (not: "having been followed")

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[10]The Greek future suffix partially continues older desiderative stems, which may go some way towards explaining its apparently canonical nonactive morphology, cf. Grestenberger 2014, 2016a and Kemmer 1993: 78ff., 131, 269 on the connection between desiderative semantics and "middle" morphology.

Thus while the present participle apparently suspends the voice mismatch for deponent verbs (with the result that their present participles behave morphologically and syntactically like those of non-deponent active transitive verbs), the perfect participle preserves it.[11] This means that the Latin present "active" participle cannot be used as evidence that voice mismatches are generally suspended in nonfinite contexts. This is even clearer in languages like Ancient Greek and Sanskrit, where participles, like finite verbs, alternate systematically between active and nonactive forms, with deponent participles always selecting *nonactive* participial morphology and preserving the mismatch (cf. Grestenberger 2018a, 2018b).

The solution to the Latin participle conundrum suggested by Embick 2000 treats the present and perfect participle suffixes as *syncretic*. That is, these suffixes are not sensitive to whether or not Voice has an external argument or is present at all (cf. the Spell-Out condition in (11)) and are therefore compatible with any verb, irrespective of its argument structure. The Spell-Out conditions of these suffixes are given in (20), based on those of Embick 2000.[12]

(20)   a.   *-ns* ↔ Asp[PRES]
       b.   *-t[us]-* ↔ elsewhere

This will naturally result in deponent and non-deponent participles surfacing with the same participial morphology. The classification as "active" and "passive" participles is therefore something of a misnomer.[13] Note that this pattern is again very different from the instances of "semi-deponency" discussed in the previous section and depends on a language-specific morphological syncretism. Approaches in which "overrides" can derive any kind of exceptional surface form by brute force cannot capture these important distinctions.

5   Deponency and diachrony

We have seen in the previous sections that understanding deponency depends crucially on one's definition of the term and on separating the idiosyncratic, lexicalized aspects of any given mismatch from those aspects that are synchronically derivable from independently needed mechanisms. This means that understanding the diachrony of a given mismatch

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[11]The future participle in *-tūrus*, usually classified as formally active, patterns like the present participle and is syntactically active when formed to deponents, while the gerund and gerundive are syntactially passive. For reasons of space I focus only on the present and perfect participles, but the analysis can be extended to the other nonfinite forms of Latin deponents.

[12]Embick argues that the Latin participles spell out the functional head Asp when verb movement to T is blocked.

[13]Confirmed by the exceptional behavior of many of these participles with respect to active and passive syntax, but also tense/aspect, which has been known for quite some time (cf., e.g., Brugmann 1895).

phenomenon is a crucial precondition for its analysis. While some mismatches are purely synchronic (cf. Bobaljik 2007 on Chukchi), others have features that are synchronically idiosyncratic (i.e., the fact that some Latin, Greek, and Sanskrit agentive verbs unexpectedly take nonactive morphology). The account of narrow deponency discussed in section 3.2.1 provides a case study of such an interplay between diachronic and synchronic factors in analyzing deponency.

Unfortunately, the role of diachrony is rarely explicitly addressed in discussions of deponency (cf. Juge 2013's criticism of the papers in Baerman et al. 2007). Exceptions are Lavidas and Papangeli 2007 (cf. also Lavidas 2009), Good 2007, and Hippisley 2010, as well as Grestenberger 2016b, 2018a (see section 3.2.1).

Lavidas and Papangeli 2007 trace the development of deponents (in the broad sense, that is, non-alternating nonactive verbs) from Ancient to Modern Greek and show that new deponents kept arising in the history of Greek, but offer no theoretical analysis (beyond stating that "deponency requires the existence of morphology in the design of grammar", p. 121, which seems too strong a conclusion). Good 2007 discusses several instances of deponency in the verbal system of Bantu languages, crucially "pseudo-causatives" which have causative morphology but no causative semantics, and "pseudo-passives", which have apparently passive morphology but no passive meaning. These are especially reminiscent of the Latin, Greek, and Sanskrit deponents discussed in sections 3.2.1, and, like the latter two, can occasionally be passivized. Table 15 illustrates some Bantu pseudo-passives (the suffix -w- is historically a passive suffix) and their synchronic passives, if any.

Table 15. Kinyamwezi (Bantu) pseudo-passives (Good 2007: 224)

Stem	Passive	Gloss
-gay-iw-	—	'lack'
-chil-w-	—	'hate'
-íg-w-	*-igíw-* (?)	'hear'
-tóg-w-	*-togíw-*	'like'
-zilí-w-	—	'be in need'

Semantically, these verbs are subject experiencer verbs, a class that has been shown to be prone to reanalysis as agentive (cf. section 3.2.1), so they may even instantiate "narrow" deponency. Good argues that at least some of these pseudo-passive deponents arose diachronically from passives that lost their corresponding simple root or (non-passive) base verb stem, but only speculates on a possible the theoretical analysis.

Hippisley 2010 (see also 2007), on the other hand, explicitly builds diachrony into his

Network Morphology account of "paradigmatic realignment" in the diachrony of deponency. This theory is designed to account for the passive use of deponent forms such as *hortor* 'encourage' in Latin (cf. section 3.2.1), in which the mismatch is apparently given up, and the rise of new, formally active forms of former deponents throughout the history of Latin.

As Hippisley (2010: 110-1) points out, "[r]ealignment presupposes something to realign with." This is achieved through "virtual forms" of a deponent lexeme (in the Latin case, formally active "ghost forms" of *hortor*) that become "real" through realignment.

However, the notion of "virtual paradigms" (cf. also Corbett 2007, Brown and Hippisley 2012) is problematic for several reasons. First, it assumes that speakers store a vast number of paradigms or sub-paradigms that are never overtly realized or heard, raising the question of how and why children would acquire these. In fact, the only reason as to why these virtual paradigms should exist is so they can be "realigned" at some later point in history, in a sort of diachronic lookahead. Second, Hippisley assumes a version of v-deponency ("broad deponency") in which "canonical" means "alternating", a notion that has already been criticized. The assumption is that deponents like Latin *hortor* 'encourage' are "virtually" alternating, but that their syntactic and morphological paradigms are "misaligned". Crucially, the missing *active* morphological forms exist as part of the "virtual paradigm".[14] "Activation of deponents" happens when the default linking of the active syntactic and morphological subparadigms is reinstated. Instead of achieving this by getting rid of the deponent override that caused the misalignment in the first place, *another* override that dominates the deponent override is added. That is, in this morphological theory the synchronic grammar of speakers has access to information on the historical development of its lexemes ("Historical development is thus expressed as hierarchical arrangement, where the historically earlier item dominates the innovative item.", Hippisley 2010: 120), a controversial perspective.

Finally, this account has nothing to say about the "activation" of intransitive (unaccusative) "deponents" like *morior* 'die', which was "activated" by the 4th century CE (Flobert 1975: 310ff.) and which, as Hippisley 2010: 122 acknowledges, "lacks passive grammatical words". It is unclear how realignment would work in this case (what would the putative "passive" subparadigm mean?), or indeed how it would ever arise in the first place. This problem is avoided in approaches in which active and nonactive Voice morphology is sensitive to argument structure and (morphological) "Voice alternations" are treated as epiphenomenal to argument structure alternations (e.g., Kallulli 2013, Alexiadou 2013, Alexiadou et al. 2015, Grestenberger 2014, 2018a). That is, a verb like *morior* is unlikely to alternate independently

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[14]Hippisley stipulates that the passive syntactic subparadigm is "undefined", resulting in defectiveness, but see section 3.2.1 on the passivization properties of deponents. Moreover, "[t]he empirical evidence shows that defectivity is logically independent of the basic mismatch property." (Müller 2013: 365, cf. section 2.2.2).

of whether or not it is synchronically realized with active or nonactive morphology.

To conclude, the role of diachrony in deponency has largely been neglected so far, and the few accounts that do explicitly address the diachrony of deponents often fail to sufficiently account for the interplay between the mechanisms of synchronic grammar and diachronically motivated lexical idiosyncrasies. Exploring these interactions seems like a fruitful avenue for future research.

6   Conclusion

We have seen in this article that the term "deponency" has been used for a wide variety of phenomena in different languages, and different theoretical conclusions have been drawn based on it. The main insights are centered around the following points:

- The exact definition of deponency is crucial in deciding which aspects of any given mismatch needs to be accounted for by one's morphological theory. We have seen that definitions that are "too broad" lead to theories of mismatches with little or no predictive power.

- In v-deponency, crucially deponency in the voice system, "non-alternating" has often been taken as synonymous with "mismatch". This has led to incorrect generalizations and is not supported by the empirical evidence (cf. section 2.2.2).

- Deponency, and mismatches in general, are to a certain degree lexically idiosyncratic (with the exception of apparent mismatches that turn out to be solely derivable from synchronic principles, cf. section 3.2.2 on spurious morphosyntactic deponency). Some aspects of this idiosyncratic behavior are due to the diachrony of the forms in question (e.g., whether a given agentive verb takes unexpected nonactive morphology in Greek or Latin), while other aspects may be derivable from independently motivated synchronic principles (e.g., the realization of active/nonactive morphology in Greek-type languages; the syncretism in the participial morphology of Latin, etc.). Distinguishing between the diachronic and synchronic aspects of any given mismatch is crucial for its analysis.

The latter point was illustrated with a case study on deponency in selected Indo-European languages in section 3.2.1, using a "narrow" definition of deponency. On the one hand, this definition is specifically based on the languages in which deponency was first observed, such as Latin. On the other hand, the narrow definition makes it possible to look for similarities in other languages at a deeper level. For example, the analysis discussed in section 3.2.1

based on Grestenberger 2018a builds on the postsyntactic aspect of morphological Spell-Out to derive agentive nonactive verbs. This is similar to Bobaljik's account of the Chukchi SAP (Bobaljik 2007, see section 3.2.2) in that a surface "mismatch" is triggered by independently needed mechanisms of postsyntactic realization (the realization of anti-passive morphology in Chukchi and of voice morphology in Greek, etc.). It would be interesting to see if other instances of v-deponency can be derived from some aspect of postsyntactic morphological realization and its interaction with idiosyncratic, lexical features, for example, the deponency phenomena reported by Tuite (2002, 2007) for Georgian or the ones mentioned by Sundaresan (2012: 117, fn. 7) for Kannada. The narrow definition of deponency, its connection with argument structure, and the observation that "defectiveness" is not central to deponency could thus be fruitfully extended beyond the "classical" deponency languages.

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