Stability and Change in Intransitive Argument Structure

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This paper assumes that the argument structure of verbs in spoken, written, and signed languages is pretty uniform. Thus, verbs of `falling' involve a Theme and an optional causer and verbs of `working' an Agent. Aspect is relevant to that uniformity as well since the former verbs will be telic and the latter durative. I first show that, when (spoken/written) languages change, the basic argument structure and aspect don't change for most unaccusatives and unergatives. There are, however, systematic reports (e.g. Rosen 1984; Keller & Sorace 2003; Randall et al 2004) that certain verbs are unergative in one language and unaccusative in another and verbs that alternate between different aspects (e.g. Levin & Rappaport Hovav 2014). I examine a few verbs diachronically that are ambiguous in the Keller & Sorace work, i.e. verbs of continuation and of controlled motional process, and speculate on why they are.

1   Introduction

Fillmore (1970), Vendler (1976), Levin & Rappaport Hovav (1995), and numerous others divide the Aktionsart of verbs into numerous kinds. In this paper, verbs are divided into three main aspectual types, manner (durative aspect), result (telic aspect), and state (stative aspect) and these aspects determine the theta-roles. Unergative verbs, such as *work* and *play,* are durative and their basic theta roles are an Agent and incorporated Theme; unaccusatives, such as *arrive* and *fall,* are telic and their basic theta roles are a Theme and an optional Causer may render them causative. Subject experiencer verbs, such as *fear,* and (many) copulas are stative and have a Theme and optional Experiencer.

Argument structure and aspect remain fairly stable in language change, as van Gelderen (2018) argues. Causative-inchoative verbs have been the subject of much earlier research (e.g. Kulikov 2009, Narogg 2009, Ottosson 2013). This shows that, as the causative suffix becomes intransparent in the history of English, the unaccusative and causative classes converge into a class of labile verbs. Their aspect remains stable. Typical durative verbs, such as *plegan* `play' and *creopan* `crawl', keep their Aktionsart as well. The theta-role changes to verbs include additions of Causers to unaccusatives and of Themes to unergatives, keeping the inner aspect stable. Sign language too distinguish unaccusatives from unergatives (e.g. Benedicto & Brentari 2004; de Lint 2010). Copula verbs mainly originate as

unaccusatives because the Theme is central but here the Sorace (2000) Hierarchy predicts what their aspect is.

There are also verbs, the *psych*-verbs, that change their aspect from durative to telic and then to stative and their theta-roles change accordingly. There is evidence that the stative alternate is the least marked, as sign languages (Oomen 2017) and first language acquisition (van Gelderen 2018) prefer these. *Psych*-verbs will not be discussed here.

The outline is as follows. In section 2, I first review earlier data, mainly taken from van Gelderen (2018), that show that telic and durative verbs generally keep their original lexical aspect. Section 3 lists systematic reports in the literature (e.g. Rosen 1984) that certain verbs are unergative in one language and unaccusative in another or that two aspects are part of the meaning of one verb (e.g. Levin & Rappaport & Hovav 2014). After these reviews, sections 4 and 5 discuss a few instances of ambiguous inner aspect, verbs of controlled motion and of continuation. With controlled motion, the conclusion is that, for `swim', the agentive feature comes to predominate whereas, for `speed', the telic one does. Verbs of continuation are stative and therefore the telic feature is not present but the agentive is not strong either, which means that `float' and `remain' are ambiguous.

Since `swim' and `speed' are motion verbs, I should say something on the relevance of the work of Talmy (1985), Fanego (2012), and Huber (2017). Talmy classifies languages as to whether their motion verbs encode the path or the manner of an event and Fanego and Huber show that English, throughout its history, has had more manner of motion verbs with the path being indicated by an adverb or particle. This classification emphasizes duration and telicity but ignores agentivity, very relevant in Table 2 below.

The data are obtained from dictionaries, i.e. Bosworth & Toller (B&T), Oxford English Dictionary (OED), Middle English Dictionary (MED), and Dictionary of Old English (DOE), and from corpora, e.g. Corpus of Contemporary American English (COCA) and Corpus of Historical American English (COHA). The editions used in these corpora and dictionaries will not be cited in the references.

2   The aspectual stability of intransitives

Perlmutter (1978) makes the very important distinction between intransitives that have come to be called unergative and those that have come to be called unaccusative. Both have just one argument connected with them. Unergative verbs have Agents that are usually animate whereas unaccusative verbs have Themes that are either animate or inanimate. The characteristics listed in Table 1 are well-known.

Unergative	Unaccusative

a.	*-er* can be added	*-er* cannot be added	
b.	*have* perfect	*be* perfect	(older English, German, Dutch, Italian)
c.	Theme can be added	Theme cannot be added	
d.	Imperative common	Imperative less likely	

Table 1:   Some differences between unergatives and unaccusatives

Dowty (1991) characterizes unergatives as atelic and unaccusatives as telic and Tenny (1987: 264) writes that unergatives "tend to describe non-delimited events, while unaccusatives tend to describe delimited events". In this way, the choice of argument is connected to that of lexical aspect. Likewise, many others see the unergative-unaccusative distinction as completely aspectual, e.g. Zaenen (1988). Abraham (1990) uses the terms terminative/biphasic versus monophasic to distinguish two crucial classes, which I will refer to as telic versus durative.

Unergative verbs have durative aspect with an obligatory Agent and, in the history of English, have been ranalyzed as transitive verbs, keeping their Agent and durative aspect but using their incorporated Theme (e.g. *dance*) as both a verb and Theme. This is shown in the change from the earlier (1), the only Old English occurrence of *climb* in the OED, to the later (2).

(1)   *Gif hit unwitan ænige hwile healdað butan hæftum,*
          If it (light) unwise any time holds without fetters
          hit ðurh hrof wædeð, bryceð and bærneð boldgetimbru,
          it through roof wades, breaks and burns timbers
          seomað steap and geap, stigeð on lenge, **clymmeð** *on gecyndo*
          hangs steep and high, rises in length, climbs in nature.
          `If an unwise person holds it (light) without bounds, it will go through the roof and break and
          burn the timbers (of a house); it hangs steep and high and rises and climbs in nature.' (DOE,
          Solomon and Saturn 412-6, Dobbie, 1942)

(2)   a.   *To* **climbe** *þe cludes all þe sunn sal haf þe might.*
                  `To climb the clouds the sun shall have the power.'
                  (OED, Cursor Mundi, Vesp. 16267)

          b.   *Thai stoutly* **clam** *the hill.*
                  `They courageously climbed the hill.'
                  (OED, Barbour Bruce, St. John's Cambr. x. 63)

Unaccusatives are telic with a Theme, as in (3), and are reanalyzed as causatives by adding a Causer in (4). The unaccusative meaning is kept, as in (5).

(3)   *æfter gereordunge hi **æmtian** heora rædingum oððe on sealmum.*
        after repast they empty their readings or (spend it) on psalms
        'After repast, they free themselves for readings or psalms.'
        (*Rule of St Benet*, Logeman, 48, 82.13)
(4)   Hugo **empties** his pockets of screws, springs, and other tiny metal pieces. (COCA 2012)
(5)   His eyes **emptied**, his jaw went slack and he mumbled. (COCA 1993)

The unaccusative verb *arrive* `to come to shore' is a loan from French and is initially both unaccusative, as in (6) and (7), and causative, as in (8).

(6)   *Þat folc of Denemarch ... **aryuede** in þe Norþ contreye.*
        'The people of Denmark ... arrived in the North country.' (OED, Gloucester Chron. 371)
(7)   *Nu   beoð   of Brutaine   beornes **ariued .**..   i þis lond at Tottenæs*
        Now   are   of Brittany   barons arrived ...   into this land at Totnes
        `The barons have arrived from Brittany into the land at Totnes.'
        (OED, Layamon, Caligula, 8016)
(8)   *Þe wynde **aryueþ** þe sayles of vlixes..and hys wandryng shippes ... in to þe isle þere as*
        Circe..dwelleþ.
        `The wind (makes) arrive the sails of Ulysses ... and his wandering ships ... into the island where Circes dwells.' (OED, Chaucer, *Boethius*, 4.3.122)

The causative use of *arrive* remains until the 1650s but then, like other change of location verbs, becomes impossible. The basic aspect and Theme-focus remains the same.

So far, the durative aspect has been seen to go with an Agent whereas telic aspect needs a Theme. Of course, the distribution in two classes is more complex. Sorace's (2000) Hierarchy shows three aspects or it may be possible to see them as a continuum, as in Table 2, with the top half more unaccusative and the bottom half more unergative; the verbs in bold are discussed later in this paper. I have added the aspect in the right hand column.

Sorace's label	Example verbs	Aspect
Change of Location	come, arrive, fall	telic
Change of State	begin, rise, blossom, die	telic
Continuation of a pre-existing state	**remain**, last, survive, **float**	stative
Existence of State	exist, please, belong	stative
Uncontrolled Process	cough, laugh, shine	durative
Controlled Process (motional)	run, **swim**, walk, **speed**	durative
Controlled Process (non-motional)	work, play, talk	durative

Table 2:   Sorace's continuum between unaccusative and unergative

Intransitive verbs not only acquire Causer and Theme theta-roles, they are also reanalyzed as copula verbs. Because the Theme theta-role is central with copula verbs, unaccusative, i.e. the intransitives in the upper half of Table 1, are typically reanalyzed as copulas. The verb *become* is originally a telic unaccusative in (9) and is later used as (telic) copula in (10).

(9)   *Hannibal to þam lande **becom**.*   unaccusative

         Hannibal to that land came

         'Hannibal came to that land.' (OED, Orosius, Bately 100.17)

(10)   *[Of] tristrem and hys leif ysote, How he for here **be-com** a sote*   copula

         `About Tristram and his love Isolde, how he become a fool for her.'

         (Cotton, 17-18; also in Fairfax)

        Sorace (2000) and Keller & Sorace (2003) recognize core from non-core verbs. In Table 2, the top and bottom are core but controlled motional process and continuation of a pre-existing state are not. I will discuss two of each in this paper, namely *swim* and *speed* in the first group and *float* and *remain* in the second group*.* Although telicity is crucial in distinguishing the core classes, motion affects an Agent, making controlled motional process less of a core unergative. In the same way, telicity is less relevant in the verbs of continuation of existence which makes these verbs ambiguous unless an agentive feature is added.

        Having shown in this section that intransitives don't change their durative or telic aspect as they reanalyze into transitives and copulas, I now first turn to claims in the literature that some intransitives are durative in one language but telic in another and that verbs can be poly-aspectual before looking at examples of these in the history of English.

3   Cross-linguistic differences

Rosen (1984) argues that languages differ as to how the intransitive class is divided. Using Davies' (1981) work on Choctaw, she compares Choctaw and Italian `die' and `sweat'. The former is unergative in Choctaw but unaccusative in Italian whereas the latter is unergative in Italian and unaccusative in Choctaw. Verbs of uncontrolled process, such as *sneeze* and *snore,* are unergative in Dutch and Italian but unaccusative in Eastern Pomo. In response to Rosen, Sorace (2000) argues that languages make different decisions about verbs like `sweat' and `sneeze' because they are in the middle of the Hierarchy in Table 2. She doesn't discuss `die' but one could likewise argue that this verb is more agentive in Choctaw. Dutch, for instance, has idiomatic expressions for `die' that are also more agentive, as in (11).

(11)   *Hij*   *heeft*   **het**   **loodje** **gelegd.**   Dutch
         He   has   the   lead   put
         `He died.'

Rosen argues that the "class of motion verbs presents special complications" (Rosen 1984: 66) because some express manner of motion and others result. Not only are some manner in one language and result in another, as also known from Talmy's (1985) work, but languages can coerce specific verbs by adding adverbials of manner or result. Dutch *lopen* `walk' is durative in (12), shown by the auxiliary `have', but can be coerced into a telic verb in (13), in which case the auxiliary changes to `be'.

(12)   *Ik* **heb** *gelopen*.   Dutch unergative durative
         I have walked
         `I walked.'

(13)   *Ik* **ben daarheen** *gelopen.*   Dutch unergative coerced to telic through goal
         I am there walked
         `I walked there.'

Languages indeed choose a boundary between the verbs in Table 2 and `sweat', which is an uncontrolled process can therefore either be seen on the unergative side (if process is emphasized) or on the unaccusative side (if the lack of an agent is emphasized). Unaccusatives and unergatives can also be coerced into a different interpretation of their single argument but have one basic aspectual meaning.

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Another example of a verb that may have two aspectual meanings is *clean*. Levin & Rappaport Hovav (2014) point out that this verb is ambiguous between a manner reading, as in (14), and a result reading, as in (15).

(14)   He was **cleaning** after he cooked (but it remained dirty).
(15)   The machine **cleaned** the carpet beautifully.

Note that in (14), there is just an Agent, not a Theme, and an –*ing* but, in (15), there is a Causer and Theme. I will argue that the basic aspect of *clean* is telic and that the history of English sheds light on this topic.

Old English has a verb *clænsian* `make clean' that Modern English still retains as *cleanse* but which has narrowed its meaning to `make completely clean'. The verb *clean* is a relatively recent addition, according to the OED. Apart from a mention in a lexicon from the 1450s, the earliest examples are given in (16) and these are all telic.

(16)   a.   The English Frigats are now so well Fitted and **Cleaned**, that none of the Algerines they meet with, escape them. (OED, 1681, London Gaz. No. 1666/2)
        b.   We scrubb'd and **clean'd** our Men of War. (OED, 1697, W. Dampier New Voy. around World vi. 138)

Looking in COHA, the numbers of the verb *clean* increase dramatically after this introduction. In the period from 1810 to 1840, there are 59 instances of the verb *clean* and they are all telic; from 2000 to 2010, there are over 10 times as many such verbs (750) but most remain telic.

First language acquisition confirms this. Eve's files (Brown 1973) show seven instances of the verb *clean* and they are all telic, as in *I clean it off, you clean it off,* and *we better clean them,* between the ages of 1;6 and 2;3. So the telic meaning seems pretty basic. In short, *clean* is a verb that is a telic verb, due to its adjectival origin, but which can be coerced into a manner meaning.

Randall et al. (2004) show that speakers and learners take certain features to be ranked over others in a particular language. German uses locomation to distinguish unergatives and unaccusatives but Dutch does not. Below, we'll see the same that agentivity becomes more prominent with the verb `swim' but not with the other verbs; changes in ranking have not been observed in that data. In earlier but related work, Keller & Sorace (2003) conduct a series of experiments testing German native

speakers on the `have'/`be' distinction with the seven verb groups of Table 2. As mentioned in section 2, they find two unexpected verb classes: verbs of continuation (`stay', `survive') prefer `have' and verbs of controlled motion (`walk', `swim') prefer `be'. So rather than just telicity for the higher group and agentivity for the lower group, there are other factors, namely motion. In the remainder of this paper, Old and Middle English verbs that seem to have ambiguous meanings will be examined and how they develop.

4   Origin and changes in verbs of controlled motional process

In this section, I look at two intransitive verbs that are ambiguous between unaccusative and unergative meanings and how that plays itself out in language change. I selected *swim* and *speed* from this group that also includes *walk, run, crawl, wade,* and *stride. Swim* is a non-core unergative in Table 2, i.e. a controlled motional process. I start by listing all Old English instances of this verb dividid into four different meanings. I then turn to another verb in this group, *speed*, which originates in Middle English and for which I examine but do not list all MED examples.

Buck (1949: 680) writes that notions of `float, swim, and sail' are closely related in Indo-European and this carries over into Old English. Thus, Bosworth & Toller's (B&T) Old English Dictionary lists three main uses of *swimman* `swim': (a) "of living creatures moving in or on water", (b) "of a vessel moving on water", and (c) "of lying on the surface of water". This definition includes agentive and non-agentive meanings, i.e. verbs with an Agent theta-role (involving a durative manner verb), as in (17), with a Theme theta-role (involving a telic change of location), as in (18), and a Theme with a stative aspect in (19).

(17)   *Com   þa   to   lande   lidmanna   helm   swiðmod   **swymman.**   (a)
        came   then   to   land   seafarer's   leader strong.mood   swimming
        `The seafarer's leader came to land swimming bold-heartedly.' (Beowulf 1624)
(18)   *swa   hine   oxa   ne   teah   ne   esna   mægen ne   fæt   hengest* (b)
        so   it   ox   not   drew   nor   strong servants nor draught horse
        *ne   on   flode   **swom**.*
        nor   on   water   floated
        `so that an ox didn't draw it, nor strong servants or a draught horse, and it didn't float on water either.' (Exeter, Riddle 22.13-4)
(19)   *genim   doccan oððe   clatan þa   þe   **swimman**   wolde.*   (c)

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take	sorrel	or	clote	those	REL	swim		would

`Take sorrel or clote such that they float.'

(Leechdoms, Cockayne, 50.1.1)

Because these meanings are aspectually contradictory, I will examine all 32 Old English instances of `swim' that are found in the DOE Corpus. As mentioned, I will not provide full bibliographical references; they can be found in the DOE.

In addition to the three Old English examples in (17) to (19), the other instances of the Old English verb *swimman* appear in (20) to (40). I have organized them according to the three descriptions in B&T with a fourth category for verbs that seem to fall outside these definitions. Examples from the same text are grouped together. Examples (20) to (33) are agentive and durative; (27a) has a perfect auxiliary *have* in keeping with this basic unaccusativity and (32bc) have a deontic modal, typical of an Agent.

Animate creatures moving in the water (a)

(20) *þætte oþre þurh þone sæfisca cynn … **swimmað** sundhwate*

    that others through that seafish kind … swim actively.swimming

    þær se sweta stenc ut

    thare the sweet smell out

    `that other kinds of sea-fish, those swift in swimming, … swim to where that sweet smell comes out.' (Exeter Book, Whale 51-6)

(21) *fleah mid fuglum ond on flode **swom**.*

    flew with birds and in water swam

    `I flew among the birds and I swam in the water.' (Exeter, Riddle 74.3)

(22) a. *Sume fleoð mid fyðerum, sume on flodum **swimmað**.*

       some fly with feathers some in water swim

       `Some fly using feathers; some swim in the water.'

       (Ælfric's Lives of Saints, Skeat I, 14, Nativity 53-4)

    b. *þa geseah he scealfran **swimman** on anum flode.*

       then saw he diver-birds swim in a river

       `Then he saw some diver-birds swimming in a river.'

       (Ælfric's Lives of Saints, Skeat II, 300, St Martin 1314)

(23) *Ða geseah he **swymman**. scealfran on flode.*
Then saw he swim diver-birds on/in water
`Then he saw some diver-birds swim in the water.'
(Ælfric's Catholic Homilies II, Godden, 296.275)

(24) *& sæ mid eallum þam ðe hire on **swymmað**.*
and sea with all REL REL her in swim
`and all that swim in her.' (Ælfric's Catholic Homilies, Clemoes, 336.3)

(25) *swa swa fixas **swymmað** on wætere.*
So so fishes swim in water
`Like fish swim in the water.' (Ælfric's De temporibus anni, Henel, 10.4)

(26) *ælas & hacodas, mynas & æleputan, sceotan & lampredan*
eels and pike minnow and burbot shote and lamprey
*& swa wylce swa on wætere **swymmaþ**.*
and whosoever in water swims
`Eel, pike, minnow, burbot, shote and lamprey, and what else swims in the water.'
(Ælfric's Colloquy, Garmonsway, 101-2)

(27) a. *hie on sunde to þære byrig foron & **swumman***
they on/in sea to that city went and swam
ofer æfter þære ea to þæm eglande.
over afterwards the stream to that island
`they went to that city over the sea and swam to that island afterwards.'
(Alexander's Letter to Aristotle, Orchard, 15.10)

b. *Þa hie ða **hæfdon** feorðan dæl þære ea **geswummen**,*
then they then had fourth part that river swum
`When they had swum a quarter of that river, ...'.
(Alexander's Letter to Aristotle: Orchard, 1995 224-52, 15.12)

(28) *Summe **swimmæð** on flode; summe fleoð geont þas lyft.*
some swim in river some fly through that air
`Some swim in the river and some fly in the air.'
(Twelfth-Century Homilies in MS. Bodley 343, Belfour, Christmas Day 100)

(29) *Ða fugelas soðlice þe on flodum wuniað syndon flaxfote be Godes*
The birds indeed REL in rivers live are web.footed by God's

foresceawunge, þæt hi **swimman** *magon and secan him fodan.*

providence that they swim can and seek REFL food

`The birds, indeed, that live in the rivers are webfooted so that they can swim to find food.'

(Hexameron, Crawford, 252)

(30) a. *Ða* **swimmaþ** *nu sealtum yþum ða þe of ðæm*

Then swim now salt waves those REL of those

gesceapen wæron.

created were

`Then, those made from the salty waves swim.'

b. *ond þa sittaþ on feldum ond ne magon* **swimman** *ða*

and then sit in fields and not can swim those

þe of þæs græses deawe geworht wæron

REL of that grass' dew made were

`And those who were created from the dew of the grass sit on the fields and cannot swim.' (Das altenglische Martyrologium, Kotzor II, March 22)

(31) a. *Natare se uidere dampnum significat*

swimman hine geseon hearm

swim him see harm

`To see him swim means harm.' (Prognostics, Förster, 263)

b. *In flumen notare anxietatem significat*

on flod **swymman** anxsumnesse

in water swim anxiety

`To swim in the water means anxiety.' (Prognostics, 135)

(32) a. *buton þa ane þe þær ut* **ætswummon** *to þam scipum.*

except those only REL there out swam to the ships

`Except only those who swam out to the ships.' (Chronicle A, 914.22)

b. *buton þa ane þe ðær ut* **ætswymman** *mihton to þam scypum*

except those only REL there out swam could to the ships

`Except only those who could swim out to the ships.' (Chronicle C, 915.1.20)

c. *buton þa ane þær ut* **oðswymman** *mihton to þam scipum*

except those only there out swam could to the ships

(Chronicle D, 915.20)

`Except only those who could swim out to the ships.'

(33) *Đonne þu fisc habban wylle þonne wege þu þyne hand*
Then you fish have want then move you your hand

þam gemete þe he deþ his tægl þonne he swymð.
that measure REL he does his tail then he swims

`When you want to have a fish, move your hand in the way it does with his tail when it swims.'

(Monasterialia indicia, Kluge, 11.70)

The second group has only two known instances, (18) and (34). The context of 34() makes this agentive, however, as does the deontic modal *mihte*.

Vessels floating (b)

(34) *þa onsende God micelne ren 7 strangne wind …*
then sent God much rain and strong wind

swa þæt þæt scip ne mihte naþer ne forð swymman ne underbæc
So that that ship not could neither not forth move nor back

`Then God sent much rain and strong winds so that the ship couldn't move forwards or backwards.'

(Vercelli, Scragg, 321: 121-2)

The third group includes many with a deontic modal, e.g. all instances in (37) have *wille*. This may be to coerce a more agentive meaning. One of the verbs has an alternative with `float' in the same text a line before (35), namely (38). This too means that the basic aspect of `swimman' is agentive.

Lying on the surface (c)

(35) *Ageot wæter uppon ðone ele. and se ele abrecð up*
Pour water on that oil and that oil breaks up

and swimð bufon.
and float above

`Pour water on oil and the oil will break through and will float on top.'

(Aelfric Catholic Homilies II, Godden 328.51)

(36) *Wið sidwærce, betonican, bisceopwyrt, eolonan, rædic, ompran ða ðe swimman.*

Against side.pain,   betonys, bishopwort, helenium, radish, docks those REL float

`For pain in the side, betonys, bishopwort, helenium, radish, docks that float'.

(Anglo-Saxon Magic and Medicine, Grattan & Singer 50.1)

(37)   a.   *Wiþ*   *circuladle*   *genim* *doccan* *þa*   *þe*   ***swimman***   *wille*

against shingles   take   sorrel REL   REL   float   want

`Take sorrel that floats againsr shingles.' (Leechdoms, Cockayne 2, 36, 2.1)

b.   *þa*   *ruwan* *wegbrædan*   *nioþowearde* & *doccan þa þe **swimman** wille*

the   rough   waybread   downwards and sorrel REL REL float   want

(Leechdoms, Cockayne, 65.1.14)

c.   *Wiþ*   *miclan* *lice*   *genim* *nioþowearde*   *elenan* &   *þung* & *ompran*

against big   body   take   bottom (part)   helenium and   aconite and dock

þa   *þe*   ***swimman***   *wile*

REL   REL   float   want

`Against elephantiasis, take the bottom parts of helenium and aconite and dock, that

namely which will swim.' (Leechdoms, Cockayne 2, 26.1.1)

d.   handfulle niðewearde doccan þære þe **swimman** wille on butran

(Leechdoms, Cockayne, 71.1.1)

(38)   *Ageot ele uppon wæter. oððe on oðrum wætan. se ele **flyt** bufon.*

`Pour oil on water, or on another fluid, and the oil will float on top.'

(Catholic Homilies II, Godden, 328.50

The last group includes (39) where I am not sure of the meaning of that verb and (40) which doesn't
quite fit in the three categories.

Unclear/other (d)

(39)   *warþ*   *gasric*   *grorn* *þær* *he*   *on*   *greut* ***giswom***

became   terror.king   sad   there he   onto[1] shingle swam

`The whale became sad where he swam onto the shingle. (Auzon Casket, Napier, 2)

(40)   ***Swimmað***   *eft*   *on*   *weg.*   *Fleotendra*   *ferð*

float   again on   way   Fleeting   spirit

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[1] Page (2003: 177) provides the translation of `onto.'

`They (memories) float away again. The spirit of the fleeting ones …'

(OED, Wanderer 53-4)

The results are given in Table 3. This list shows that meaning (a), the durative/agentive one, predominates.

(a) swim	(b) of a vessel and (c) lying on water	(d) other	total
21	2 and 7	2	32

Table 3:   All instances of `swim' in the DOE Corpus

The basic aspect is durative in all meanings and Table 3 shows that an agentive meaning predominates but, unlike Modern English, isn't key. That `swim' is unergative in Old English is corroborated by a number of other phenomena (of Table 1). There is one instance, i.e. (27a), of a `have' auxiliary, as mentioned, and none with `be'. There are also a number of adjectives with a meaning of `able to swim' according to B&T, e.g. *swimmendlic* and *sund.* These are typically agentive.

The aspectual meaning doesn't change much in the Middle English period as evidenced in the MED. The MED keeps (a) but collapses (b) and (c) and adds a new third category, namely `have an abundance of.' By 1600, the durative, agentive meaning of `swim' prevails, however. For instance, Shakespeare's occurrences with *swim* are durative, as shown in (41) and (42), except for one which involves a vessel in (43).

(41)   Though thou canst **swim** like a Ducke (Shakespeare, 2.2.136)

(42)   'tis a naughtie night to **swimme** in. (Shakespeare, KL 3.4.116)

(43)   You have **swam** in a gondola (Shakespeare, AYLI 4.1.38)

The agentive suffix -*er* occurs twice, as in (44) and (45), another indication of basic unergativity.

(44)   Leander the good **swimmer** (Shakespeare, Much Ado 5, 2, 31)

(45)   As two spent **Swimmers**, that doe cling together. (Shakespeare, Macbeth 1,2,8)

In short, the verb *swim* is initially unergative and sometimes unaccusative but it changes at the end of Middle English into a mainly durative, agentive, unergative verb. The next verb in this group, *speed*, is initially ambiguous but then ends up more telic.

In Old English, the intransitive *(ge)spedan* has the meaning of `to prosper', as in (46). It derives from the noun *sped* `abundance, success' but is not very frequent.

(46)   *Filippe frankæne kyng ne **spedde** naht æt fernuyl.*
        `Phillip the French king was not successful at ...'
        (DOE, Ker, 1957 331)

In Middle English, it is used as a motion verb in (47) and (48), and would be classified as `controlled process' in Table 2, like `swim'. As in the case of `swim,' we'd therefore expect some ambiguities and this is the case. From the use of the causative in (47), it seems telic (unaccusative/causative) but from the use of the imperative in (48) and (49), it could be unergative. The use of *speeder* in (50) reinforces that.

(47)   *Egipte folc   hem   hauen ut   **sped**.*
        Egyptian people them   have   out   hastened
        `The Egyptian people hastened them out.' (OED, Genesis & Exodus 3178)
(48)   *Ga to mete him, þou þe **spede**.*
        `Go to meet him, hasten yourself.' (OED, Cursor Mundi, Vesp. 10555)
(49)   **Speid** fast, he said. (OED, 1488, William Wallace Actis)
(50)   *And prayed god be her **speder**.*
        ` and prayed that God be their helper.'
        (MED, c1425 Ld.Troy (LdMisc 595) 4798)

In Modern English, this verb is still ambiguous, unergative in that *speeder* exists in (51) and unaccusative in that many instances of causatives, as in (52) and (53), occur.

(51)   They sit behind traffic signs, they hide in hedges to catch a **speeder**. (COCA 2002)
(52)   violence would **speed** the change (COCA 2015)
(53)   the warmth of the electronics would **speed** the reaction of the yeast enzymes (COCA 2014)

Two verbs from the non-core unergative group, *swim* and *speed,* show variable behavior in the history of English, one settling on an unergative and another on a less clear Modern English pattern.

5   Origin and changes in verbs of continuation

In this section, I examine two verbs from the group of continuation of a pre-existing state, namely *float* and *remain*. This group also includes *last, stay, survive, persist, persevere, stand, lie,* and *rest*. As with the previous two verbs, the first one appears in Old English whereas the second only does in Middle English. For these verbs I have looked at all instances but have not listed them all.

A word closely related in meaning to *swim* is *float*, *flotian* in Old English. Bosworth & Toller's definition for *flotian* is simply `to float.' In Old English, this verb is unaccusative in (54) in having a Theme, but is also durative in (55), and it develops causative uses in (56), as expected.

(54) *ofer   ðæne   mægene   oft   scipu   scriðende   scrinde **fleotað**.*
      over   that   strongly   often   ships   going   swiftly sail
      `And over the sea, the ships go strongly and swiftly.' (Paris Psalter 103.24).

(55) *and   heo   **fleat**   ofer   þæt   wæter to lande.*
      and   she   floated over   the   water   to land
      `And she floated over the water to the bank.'
      (Das altenglische Martyrologium, Kotzor II, December 25)

(56) The first Piece of Improvement of **floating** or watering Lands. (OED, 1649 W. Blith)

However, many of these are not very telic, as in (57) and (58), and some are ambiguous between `float' and `swim', as in (59), which is emphasized by the deontic modal *meahte***.**

(57) *ac   hit   sceal   **fleotan** mid   ðy   streame*
      but   it (a ship) must float   with   the   stream
      `It must float with the current.' (Cura Pastorale 445.10)

(58) *swa   scipes   byðme þonne hit   **fleoteð** on   streame.*
      as   ship's   hull   when   it   floats   on   water
      `like the hull of a ship when it floats above the current.'
      (Das altenglische Martyrologium, Kotzor II, 10 July)

(59) *No   he   wiht   fram   me   flodyþum   feor   **fleotan** meahte*
      Not   he   creature from   me   water.wave   far   float   could
      `He could never move/swim further than I over the water.' (Beowulf 541)

The MED has a more complex definition than B&T, namely "(a) to rest or move on the surface (of a liquid), to float; to sail or drift (in a ship); of fish: to float or swim; (b) of humors: to flow; (c) of an odor: to be wafted (on the air); (d) of persons: to move about, run". The examples are mainly of (a) and the ones of (b), (c), and (d) are from later Middle English. The examples of (d) are given in (60) and (61) and show a more agentive reading.

(60) *Þaʒ*   *he*   *were*   *inne*   *hys*   *man hode*   *Amanges ous*   *to*   ***flotie***.
      though   he   was   in   his   manhood   amonst us   to   move

`Though he were to move among us as a man.' (MED, c1350 Shoreham Poems)

(61) *Hij*   *ferden*   *so*   *dere*   *in*   *halle*   *And*   ***floteden***   *so*   *fyre*
      They   went   as   deer   in   hall   and   moved (around)   as   fire

      in   *felde,*   *þe*   *folk*   *of*   *Perce*   *so*   *gan*   *abelde*.
      in   field   the   people   of   Persia   thus   began   take.heart

`They went as quick as deer inside and moved as fire in a field and the people of Persia began to take heart.' (MED, c1400 Kyng Alisaunder 2436-8)

This ambiguity is not unexpected from verbs with a meaning of `continuation of a pre-existing state'. As Keller & Sorace (2003) have shown, there is a preference for the auxiliary `have' in German and Dutch. There are very few agentive uses of *floater*, but (62) is a contemporary one.

(62) And you never know what wonders you will find as you float. I'm a **floater**! (COCA 2014)

So the stative aspect of `float' renders this verb ambiguous; the durative, agentive `swim' is also ambiguous because of the motion involves that makes the Agent somewhat Theme-like.

Another unaccusative verb like *float* is *remain* in that its focus is a Theme argument, not an Agent, but it is stative, not telic, and in that sense is not a core unaccusative. The earliest examples are provided in (63) and (64).

(63) *To the part of this endenture **remaynand** to the forsaid Alexander.*
      `As for the part of this agreement remaining to the already mentioned Alexander.'
      (OED, 1388, Robertson Illustr. Topogr. & Antiq. Aberdeen & Banff 1857)

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(64)   *Onely oo cow she hadde a-lyue* **remaynyng** *of that pestilence.*

        'Only one cow she had alive remaining of the plague.' (MED, 1425, Found.St.Barth. 60/15)

Further similar examples are shown in (65) to (67), not telic but focused on a Theme.

(65)   *Yet* **remaigneth** *dwe to þe executoures of þe seid John Baxter*

        `(Something) still remains due to the executors of John Baxter.' (MED, 1436 Paston)

(66)   *but hir voice* **remayneth***, which lastith yit.*

        `but her voice remained, which still does.' (MED, c1450 Scrope Othea (StJ-C H.5) 105/4)

(67)   *Ther* **remanes** *in ye hondes of the forsayd proctours …*

        `There remains in the hands of the mentioned proctors …..'

        (MED, 1445, Acc.St.Mary Thame in BBOAJ 8.54)

I have not found instances of this verb used with the auxiliary `be', indicative of unaccusative use, or of –*er*, indicative of unergative use. This verb also develops into a copula and auxiliary but stays quite stable in its stative aspect.

6   Conclusion

Intransitives can be divided in unergative and unaccusative but, as many people have shown, the division is gradient, with some verbs core and some non-core. In this paper, I have examined two verbs each from two non-core verb groups. It corroborates the work in Keller & Sorace (2003) who show that native speakers of German have variant `have'/`be' selection (and impersonal passive use) with these verbs as well as cross-dialectal differences. Of the verbs of controlled motion, the diachronic data show the durative `swim' initially somewhat ambiguous between unaccusative and unergative but settling on the latter in the modern period, consistent with its basically durative aspect. The verb `speed' is initially ambiguous and continues to be. The verbs of continuation that are examined are *float* and *remain*. Both continue to be ambiguous.

        The reason behind the instability of these two verb classes has been touched upon above: controlled motional process verbs (unlike non-motional ones) have movement inherent in their meaning and hence the non-agentive focus that makes them more like unaccusatives; stative verbs of continuation by definition reach no goal but involve no Agent either.

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