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Review

Teleology and animacy in external arguments

Raffaella Folli ^{a,*}, Heidi Harley ^b

^a University of Ulster, Newtownabbey, UK

^b University of Arizona, AZ, USA

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Abstract

In this paper, we consider a number of phenomena in English, and other languages (Italian, Greek, Russian) involving external arguments where *prima facie* animacy seems to constrain grammaticality. Our discussion comes to the conclusions that, at least in the cases under analysis, a more appropriate notion should be evoked, i.e. the notion of teleological capability and that the inherent abilities of an entity to participate in an event is at the basis of its grammatical occurrence.

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* Corresponding author at: School of Communications, University of Ulster, Newtownabbey, BT37 0QB, UK. Tel.: +44 2890366615; fax: +44 2890368251.

E-mail address: r.folli@ulster.ac.uk (R. Folli).

27 **1. Introduction**

28 There are several phenomena in natural language that seem to be dependent on a notion of
29 animacy or intentionality. In some languages, these effects are clearly syntactically marked, as in
30 the ‘animate-first’ requirement on DPs in Navajo clauses. In others, they manifest themselves
31 more subtly, only appearing in certain constructions or with certain lexical items. We examine
32 cases of this latter type here, in Italian and English, Greek and Russian. In particular, we will
33 consider the effects of animacy in external argument position.

34 In the cases under consideration, DPs that refer to inanimate entities are more restricted in
35 their distribution than DPs which refer to animate entities. In some cases, the effects that emerge
36 result from the interaction of semantic considerations and syntactic structures; in others they are
37 more purely semantic or Encyclopedic in nature. In all cases, however, we will argue that the
38 source of the animacy effect has its roots in the notion of *teleological capability*: the inherent
39 qualities and abilities of the entity to participate in the eventuality denoted by the predicate
40 (Higginbotham, 1997).

41 The cases we will discuss involve sound emission, possession, causation chains and
42 permission, respectively. We will examine each in turn in sections 2–5. In section 6 we will then
43 consider a number of cases where the effect of apparent animacy restrictions has a structural
44 reflex, namely in affecting the complement of the little *v* head which introduces external
45 arguments.

46 **2. Sound emission**

47 It is usually assumed without argument that DPs bearing an Agent theta-role must be animate,
48 and certainly in most cases Agents *are* animate. Nevertheless, there are certain cases where it is clear
49 that animacy and agency are dissociated.

50 The subjects of so-called ‘theme unergatives’ (Levin and Rappoport-Hovav, 1995) can be
51 animate or inanimate. The subjects of unergative verbs are of course Agents—indeed, in a
52 syntactically-based approach to theta-role assignment like that of Hale and Keyser (1993, 2002),
53 they must by definition be Agents, since they occur in the specifier position of the external VP.¹ If
54 they were not Agents, we would expect the verbs to exhibit hallmarks of an altered syntactic
55 structure, for instance, they might be expected to behave like unaccusative verbs. In most cases,
56 they do not.

57 The canonical examples are verbs of sound emission: *whistle, hum, squeak, click, hiss, ring,*
58 *etc.*² In English, these verbs are good examples of the Hale and Keyser zero-derived types, all
59 having related bare nominals which denote the noise emitted: *a whistle, a hum, a squeak, a click,*

¹ In this paper, we adopt the notion from Hale and Keyser (1993, 2002), Chomsky (1995) and Marantz (1997) that the external-argument-introducing projection is *v*^o. In some recent work (e.g. Pylkkänen, 2002; Marantz, 2005), the external-argument-introducing projection and the verbalizing projection are separate, appearing as VoiceP and *v*P, respectively. Even in such tripartite systems, VoiceP is maximally underspecified with respect to the semantics it requires of an external argument introduced there; any constraints on the nature of the external argument involved are due to the contents of *v*^o, not Voice^o. Since nothing in the current discussion hinges on the distinction between Voice^o and *v*^o, we adopt the simpler position according to which they are unified. For some discussion of the pros and cons of VoiceP, see Harley (2005, 2006).

² Interestingly, these verbs are somewhat rare in Italian, and those that exist seem to refer more to physical processes of producing the sound, rather than to the sounds themselves. For instance, there is no equivalent of *click, hum, or ring*, nor are there many verbs that refer to animal noisemaking: there are the verbs *schioccare*, ‘to snap (one’s fingers)’, *spernacchiare* ‘to blow a raspberry’, and *scricchiolare*, ‘squeak’ (of hinges), which have a robust restriction to the physical means of production.

60 a ring, etc. In Italian, they select *avere* ‘have’, as their auxiliary in the perfect, rather than *essere*
61 ‘be’, no matter whether their subjects are animate or inanimate, as shown in (1) and (2):

- 62 (1) Gianni ha/*é fischiato
63 John has/*is whistled
64 (2) Il treno ha/*é fischiato
65 The train has/*is whistled
66

67 Indeed, some of these verbs even exclude animate subjects, as for *ring* in English, or
68 *scricchiolare* ‘squeak’, in Italian.

- 69
70 (3) Questo tavolo/#Gianni scricchiola
71 This table/#Gianni squeaks
72 (4) The phone/#John rang³
73

74 Given the uniform syntactic behavior of the animate and inanimate subjects in these cases, we
75 assume a uniform semantic relationship, namely that these are all Agents.

76 The natural question, then, is what it is about these inanimate DPs in combination with these
77 verbs that makes them legitimate Agent external arguments in these cases. It seems clear that
78 although trains and tables are not animate entities, they have properties internal to their
79 construction that makes them appropriate or typical whistlers and squeakers. Trains, in fact, are
80 built with whistles in them, and tables that squeak do so by virtue of their physical characteristics.
81 Agents, then, are entities which can produce particular events by themselves: they are sufficient
82 on their own to initiate and carry out the entire event denoted by the predicate.

83 This point is confirmed by an observation due to Levin and Rappaport-Hovav (1991). When
84 the subject of such a verb is not teleologically capable of producing the noise, a different syntactic
85 structure is required, as in *The bullet whistled* *(into the room).⁴ This sentence is unacceptable
86 without a goal of motion PP. Here, the sound emission verb becomes a verb describing the motion
87 of the entity, and the sound is interpreted as a manner element describing that motion, namely that
88 the motion produced a whistling noise. It must be the *motion* of the bullet that produces the
89 whistling, rather than the bullet, as can be seen when such sound-emission motion predicates
90 require animate subjects as *yell* and *laugh* in (5):

- 91 (5) a. *John yelled into the room
92 b. *Mary laughed out of the room
93

94 Because motion cannot produce yelling or laughing, these verbs may not be used as manner-of
95 motion verbs—they may only be true unergative activity verbs.

96 The syntactic contrast between *The bullet whistled* *(out of the room) and *The train whistled*
97 confirms our point earlier: Inanimate entities like *The train* can be true Agents, as long as they are

³ In British English, *John rang* has an irrelevant reading on which it means that he telephoned, although this is not the case in American English. In neither dialect, however, can it mean that he made a ringing noise himself.

⁴ This phenomenon in the literature is often connected to another alternation with verbs of manner of motion. Hoekstra and Mulder (1990) noticed that manner of motion verbs can occur as causative verbs if a goal PP is added:

(i) John walked his mother *(into the room).

Folli and Harley (2006) argue in fact that the availability of this alternation is not connected to telicity and in particular to the presence of a goal-denoting PP but rather to the availability of a specific syntactic structure, containing a Small Clause.

98 teleologically capable of producing the activity described by the predicate. When they are not so
99 capable, i.e. for the bullet to be able to appear as the external argument of *whistle*, a change in the
100 syntactic structure has to occur: the goal phrase has to be realized. We return to this point in section 6
101 below.

102 Similar remarks apply to unergative verbs such as *cough*, *shiver* and *blush*, whose subjects
103 must be animate, but need not be intentional. For these verbs, animacy is a property that their
104 external arguments must have in order to be teleologically capable of generating these verbal
105 actions, but intentionality is not.

106 3. Possession

107 Another context in which animacy effects appear is in the domain of possession. As shown in
108 *Belvin* (1993, 1996), the relationship between a possessor and a possessee, expressed by the verb
109 *have*, is mediated by both animacy and (in)alienability. Animate subjects can be said to ‘have’
110 both inalienable items, such as their body parts, and non-attached, alienable ones—essentially
111 everything else. Inanimate subjects, on the other hand, may only ‘have’ items with which they are
112 in a meronymic relationship—their inalienable subparts. This difference is illustrated in (6) and
113 (7). In (6), the animate subject felicitously enters a possession relation with either a body part or
114 an alienable item; in (7b), the inanimate subject sounds odd when it is being ascribed possession
115 of an alienable item. Rather, a locative reading is required, which in English is implemented by
116 the addition of a locative PP, in (7c).

- 117 (6) a. John has a broken arm
118 b. John has a car
119 (7) a. The oak tree has many branches
120 b. #The oak tree has a family of birds
121 c. The oak tree_i has a family of birds in it_i
122

123 The same holds true in Italian. Indeed, in Italian there is no way to express this relationship using
124 *avere* ‘have’, as the main verb at all, using a PP—the locative reading must be expressed with
125 *essere* ‘be’, in an existential construction.

- 126 (8) a. Gianni ha un braccio rotto
127 John has a arm broken
128 b. Gianni ha una macchina
129 Gianni has a car
130 (9) a. La quercia ha molti rami
131 The oak has many branches
132 b. #La quercia ha un uccello
133 The oak has a bird
134 c. C’è un uccello sulla quercia
135 There is a bird on.the oak
136

137 The locative reading of ‘have’ in English is of course available for animate entities as well, as
138 long as it’s understood that they do not have control over the located thing, as in (10) below:

- 139 (10) John had a bee on him/on his shoulder
140

141 Interestingly, although the locative use of *avere* ‘have’ in Italian is impossible to implement with
142 a PP like ‘in it’, it is perfectly with an inalienable body part possessee, for both animate and
143 inanimate subjects, as shown in (11):

- 144 (11) a. Gianni ha una vespa sulla spalla
145 John has a wasp on.the shoulder
146 b. La quercia ha una famiglia di uccelli sul ramo
147 The oak has a family of birds on.the branch
148

149 One possible approach to distinguishing the locative *have* sentences like (7) and (11) from
150 the possessive *have* sentences like (6) and (8) would be to claim that there are two verbs *have*: HAVE₁,
151 the locative variety, which selects for a location subject, a locatee and a location PP, and HAVE₂, the
152 possessive variety, which selects for an animate possessor subject and a possessee. This approach
153 would make the claim that ‘Animacy’ as a primitive is identified in the semantics of HAVE₂. This,
154 however, would require treating inanimate possessor subjects in inalienable possession
155 constructions as locations, rather than as possessors, since only HAVE₁ would allow for inanimate
156 subjects, an approach suggested in Belvin (1996) and adopted in Harley (1998).

157 The well-formedness of *avere* as an expression of inalienable possession for both animate and
158 inanimate entities, however, suggests that this is the wrong approach (for a review of the literature
159 and discussion, see Butt et al., 2005). Recall that Italian *avere* may *not* be used as a verb of
160 location (contrast (9) with (11)). Both animate and inanimate entities may indeed be legitimate
161 Possessor subjects of *have*; the only difference between them is in the kind of things that they can
162 possess. This can be captured with recourse again to the notion of teleology: Animate entities are
163 teleologically capable of controlling unrelated items, while inanimate entities are not—indeed,
164 one might claim that this is a criterial quality of any entity that is mentally represented as animate.
165 This seems to be corroborated by the fact that as soon as a listener tries to interpret a sentence like
166 *The tree has a bird*, they must construct a cartoon-style or fantasy scenario in which the tree is
167 itself an animate entity. This allows for a unified semantics of *have*, as proposed by Belvin
168 (1996), with the different interpretations following from non-linguistic facts about the mental
169 representation of possession relations. The contrast, then, is not due to animacy as a grammatical
169 primitive.⁵

170

⁵ We remain agnostic here as to whether English locative *have* is a different verb from English possessive *have*. The fact that Italian *avere* is a translation equivalent for the latter but not the former might suggest that this is the correct approach. However, we suggest that another view might be equally appropriate, namely that the selectional properties of English *have* are more relaxed than those of Italian *avere*. We assume that the complement to *have* in a locative sentence (10) is a small clause, where the Theme *a bee* has the location *on his shoulder* predicated of it, in a structure like the following: [_{SC} [_{DP} a bee] [_{PP} on his shoulder]]. English *have* allows such SC complements in its causative and experiencer readings (e.g. *John had Bill go to the store*), while Italian *avere* has no such usage. The locative reading, we argue, arises from *have* taking such a SC argument in which an embedded pronominal is coindexed with the subject of *have*—that is, the locative reading is a type of experiencer reading that arises from the selectional permissiveness of *have* in English as compared to the more rigid requirements on Italian *avere*. See Harley (1998) for discussion and structures.

A reviewer points out that the permissiveness of *have* with respect to its external argument with a SC complement, as opposed to the selectiveness of *have* with a nominal complement, parallels the same phenomena we discuss with v_{DO} and v_{CAUSE} in section 6. Since there we argue that the correlation between subject-selection and complement-type indicates that two distinct heads are involved (v_{DO} and v_{CAUSE}), the same argument could well go through for English *have* here. This is indeed a promising line of investigation which we intend to take up in future work.

171 **4. Causation chain effects**

172 As discussed in section 2 above, within the domain of argument structure relations, a
173 distinction has consistently been made between Agent and Causer external arguments (e.g.
174 Gruber, 1965 and much work since; for some recent discussion, see Travis, 2000; Davis and
175 Demirdache, 2000; Kallulli, 2006; Doron, 2003; Levin and Rappaport-Hovav, 2005; Alexiadou
176 et al., 2006; Alexiadou and Schäfer, 2007, among others), with the associated claim that Agent
177 arguments are often animate. Above we have argued that some true Agent arguments can be
178 inanimate, if they are appropriately internally configured. Here, we extend that point by
179 focussing on restrictions on the role that different types of Causers can play in initiating events.

180 In particular, we consider causative change-of-state verbs, whose external arguments express the
181 triggering entity or event, but are not agentively controlling the unfolding of the change-of-state
182 event. There are significant constraints on the relationship between the internal constitution of the
183 Causer itself and the types of events which it can initiate—the well-known ‘direct causation’
184 restriction (see, e.g. Singh and Shibatani, 1976 et seq.). These effects are particularly salient in
185 Italian, so we illustrate our discussion with Italian examples below.

186 In (12), we provide a series of pairs of sentences with different well-formedness judgments,
187 where the Causer of the event is either appropriate or inappropriate as an initiator:

- 188 (12)
- 189 a. #Il temporale ha rotto la finestra
The storm broke the window
 - 190 b. ?Il vento/Il colpo di vento ha rotto la finestra
191 ?The wind/The gust of wind broke the window
 - 192 c. Il ramo ha rotto la finestra
193 The branch broke the window
- 194

195 In (12a), although the windows might well have broken as a result of the storm’s winds, the
196 storm itself cannot be said to have ‘broken’ the windows. In (12b), however, the winds
197 themselves can be said to break the windows, as long as they do so directly, e.g. with a sudden
198 gust, and in (12c), the branch is a completely natural breaker of windows. Intuitively, the
199 difference seems to be connected to the causation chain involved in each case: The storm is too
200 indirectly related to the breaking event to be expressed as a direct Causer; the intervening action
201 of the winds creates a situation in which the whole storm itself is not the most ‘proximate cause’
202 (in the terminology of Wolff, 2003).

203 The question of what makes a particular entity an appropriate ‘direct Causer’ for a given
204 event can again be connected to the notion of teleological capability. In the cases here, the
205 physical makeup of the Causers at hand directly determine their felicity in the external
206 argument position. Because there’s a lot more going on in a storm than just the particular gust
207 of wind that breaks the window, the storm, as an entity, is really too global a cause to qualify—
208 it is of the wrong granularity, in the terms of Wolff (2003).⁶ (12b) Illustrates this effect even
209 more subtly: insofar as ‘the wind’ is an appropriate breaker of windows, it must be because it is
interpreted as composed of a strong gust, which could itself directly break the window. The

⁶ Wolff (2003) explains examples like *William the Conqueror changed the English language* in terms of granularity—despite the huge number of intervening causal events involved, the whole change can not be ascribed to any single one of those events. The only causal event of the correct granularity to initiate this enormous change is in fact the Conqueror’s invasion and occupation of England in 1066.

whole predicate, composed of the verb and its object, imposes a teleological requirement on its Causer subject.

One interesting question has to do with how linguistic this effect is, as opposed to how much it can be attributed to world knowledge, as we are suggesting above. Languages famously differ in what types of entities are appropriate direct Causers: certain languages are more restrictive than others. English is relatively free (*The storm broke a window* is quite felicitous in English), while Japanese, French, Italian and Dutch are fettered to different degrees in this regard. We speculate that this may have to do with the other lexical and grammatical resources available in these languages. For instance, Italian has an all-purpose causative verb *fare*, which is highly productive, and preferred in describing situations of more indirect causation. English *make* is somewhat less productive. Indeed, Italian has a small class of unaccusative change-of-state verbs (*evaporare* ‘evaporate’, *scoppiare* ‘burst’, *appassire* ‘fade’, *esplodere* ‘explode’, *crescere* ‘grow’, and *tacere* ‘quiet’) which fail to alternate, although they may do so in English and other languages; the only way to express the causation of these events is with *fare*.

The converse of this effect can be seen in *fare* expressions, which embed events whose external arguments could in principle be Causers or Agents. In practice, however, only Agent embedded subjects are possible in *fare* causatives of transitive verbs, as shown in (13) below⁷:

- (13) Gianni ha fatto rompere la finestra a Maria/#al ramo
John has made break the window to Maria/#to.the branch
‘John had Maria/#the branch break the window’

In these constructions, the causation is *necessarily* mediated—there is explicitly an embedded, intervening initiator. These embedded initiators *must* be animate. It’s well-known that the interpretation of such causatives involves a sense of obligation: the matrix Causer is obliging the embedded Causer to initiate the embedded event (Kayne, 1975; Hyman and Zimmer, 1975; Alsina, 1992; Guasti, 1996; Ippolito, 2000; Folli and Harley, in press). This effect arises because there is no way for the subject of *fare* to be a direct cause of the embedded event other than by having control over the actions of the mediating initiator, which is acting on its own behalf. Because the matrix subject may not have control over the actions of Causes, inanimate entities cannot appear in the embedded subject position of these constructions.

5. Licenses and permission

A very subtle case which we feel exhibits the teleology effect in a clear way can be seen in the following Greek, Russian and English examples⁸:

- (14) a. O idioktitis mas epetrepse na exume skili, ala
det owner us permit.PST.PF NA have dog but
den ixame skili
NEG have.PST.PL dog
‘The owner permitted us to have a dog, but we didn’t have a dog

⁷ Here we are discussing *fare* causatives of the ‘Faire Infinitif’ (FI) type, first described by Kayne (1975). For extensive discussion of these and also other *fare* constructions, see Folli and Harley (in press).

⁸ These examples, due to Sabine Iatridou, were pointed out to us by Bridget Copley.

- 252 b. O idioktitis mas epetrepe na exume skili, ala
253 DET owner us permit.PST.IMPF NA have dog but
254 den ixame skili
255 NEG have.PST.PL dog
256 ‘The owner permitted us to have a dog, but we didn’t have a dog’
257 c. #Ekini i adia mas epetrepse na exume skili, ala
258 That DET license us permit.PAST.PF NA have dog but
259 den ixame skili
260 NEG have.PST.PL dog
261 ‘The license permitted us to have a dog, but we didn’t have a dog’
262 d. Ekini i adia mas epetrepe na exume skili, ala
263 That DET license us permit.IMPF NA have dog but
264 den ixame skili
265 NEG have.PST.PL dog
266 ‘The license permitted us to have a dog, but we didn’t have a dog’
267 (15) a. Xozyain pozvol-al nam ime-t’ sobak-u,
268 Landlord.NOM permit-IMPF us.DAT have-INFIN dog-ACC,
269 no my ne ime-l-i
270 but we.NOM not have-PST-PL
271 ‘The owner permitted us to have a dog, but we didn’t have a dog’
272 b. Xozyain pozvol-il nam ime-t’ sobak-u,
273 Landlord.NOM permit-PF us.DAT have-INFIN dog-ACC
274 no my ne ime-l-i
275 but we.NOM not have-PST-PL
276 ‘The owner permitted us to have a dog, but we didn’t have a dog’
277 c. #Litsenzia pozvol-il-a nam ime-t’ sobak-u,
278 Licence.NOM permit-PF-FEM us.DAT have-INFIN dog-ACC,
279 no my ne ime-l-i
280 but we.NOM not have-PST-PL
281 ‘The license permitted us to have a dog, but we didn’t have a dog’
282 d. Litsenzia pozvol-al-a nam ime-t’ sobak-u,
283 Licence.NOM permit-IMPF-FEM us.DAT have-INFIN dog-ACC,
284 no my ne ime-l-i
285 but we.NOM not have-PST-PL
286 ‘The license permitted us to have a dog, but we didn’t have a dog’
287 (16) a. (In 1990) the landlord had permitted us to have a dog, but we didn’t have one
288 b. (In 1990) the landlord permitted us to have a dog, but we didn’t
289 c. #(In 1990), the licence had permitted us to have a dog, but we didn’t have one
290 d. (In 1990), the licence permitted us to have a dog, but we didn’t have one
291

292 In the above examples, we see that in all three languages, an animate subject of ‘permit’ is
293 grammatical in both perfective and imperfective, shown in (14a)–(14b), (15a)–(15b), and (16a)–
294 (16b). However, when the subject of ‘permit’ is changed to the (inanimate) noun ‘licence’, a difference
295 emerges: the licence may imperfectively ‘permit’ but not perfectly (14c), (15c) and (16c).⁹
296

297 ⁹ This effect holds with verbs of permission and obligation more generally, assuming that the other relevant restrictions
298 on the effect are met (i.e. if appropriate subjects can be found; see discussion below).

299 Again, we think that despite its surface relation to whether the external argument is animate or
300 not, this effect is not about animacy, as the example below shows, where the inanimate subject
301 can indeed be interpreted in the perfect:

- 302
303 (17) (At the time when I first met her), her way with animals had permitted her to have
304 pets of many different species

305 We hypothesize that the badness of (14c), (15c) and (16c) rather has its source in the nature of the
306 relationship between licenses and the permission that they grant, in composition with the semantic
307 properties of the perfect (in (16)) or perfective (in (14) and (15)) constructions. As long as the
308 license exists, the permission that it confers also exists. The aspectual marking of these sentences,
309 however, asserts that the permission event is completed by reference time—in other words, the
310 permission no longer exists.¹⁰ Of course, the subject's existence and the reference time must
311 overlap—otherwise, the property could not be predicated of the subject at the reference time.
312 Accordingly, in the perfect and perfective examples above, the permission event must be over, but
313 the subject must continue to exist. This creates no conflict in the case of the landlord (or in the case
314 of *her way with animals* in (17), which continues to exist), but in the case of the license, it creates a
315 contradiction: the license is presupposed to exist at reference time, but the permission is asserted to
316 be completed at reference time, and consequently the licence must no longer exist at that time.¹¹
317 Ultimately, we think, this is again an effect due to the teleological characteristics of licenses—their
318 ability to be granters of permission is inherent to their nature: while they exist, they grant
permission, and when permission is over, the license itself no longer exists.¹²

319 6. Grammatical reflexes of teleology and animacy

320 Above we have considered cases where the effects of animacy seem to be best ascribed to the
321 interaction between the Encyclopedic properties of lexical items and certain components of
322 grammar: for example, we have seen how the syntax/semantics of perfect interacts with the
323 encyclopedic meaning of the noun *license* to systematically rule out its occurrence with this tense
324 in several languages. The underlying conclusion we drew was that the notion of teleology
325 provides us with a better tool to capture the phenomena under discussion. Here we would like to
326 turn our attention to cases where animacy seems to have a more properly syntactic effect.

327 In particular, Folli and Harley (2005) notice that a change in the type of subject is associated
328 with a change in the internal structure of the VP in examples like the following:

- 329
330 (18) a. John ate the apple
331 b. John ate up the apple
332 c. *The sea ate the beach
333 d. The sea ate away the beach

334 ¹⁰ (For recent discussion of the semantics of these constructions, see Bhatt (1999), Iatridou et al. (2001), Pancheva
335 (2003) among many others).

336 ¹¹ As noted by a reviewer, this effect may be similar to the oddness of sentences like *#Einstein has visited Princeton*,
337 which exhibits the so-called 'lifetime effect' in present perfects. For some recent discussion, see Portner (2003).

338 ¹² Note that in Italian the contrast noted above in (14) does not carry over. In Italian the noun 'licenza' license can be
339 used both with imperfect and with the perfect form (the *passato prossimo*). We speculate that this is related to the fact that
340 the *passato prossimo* in Italian does not always imply completion (see e.g. Bertinetto, 1986; Giorgi and Pianesi, 1997;
Arosio, 2004 for further discussion).

- 341 e. Gianni ha mangiato una mela
342 G. has eaten an apple
343 ‘Gianni has eaten an apple’
344 f. Gianni si é mangiato una mela
345 G. REFL is eat.PST an apple
346 ‘Gianni ate an apple up’
347 g. *Il mare ha mangiato la spiaggia
348 The sea has eat.PST the beach
349 ‘The sea ate the beach’
350 h. Il mare si é mangiato la spiaggia
351 The sea REFL is eat.PST the beach
352 ‘The sea ate the beach away’

353

In (18a)–(18d), we see that when the subject of a verb of consumption like *eat* is not animate or intentional, as is the case in (18c)–(18d) where *the sea* is the subject, a Small Clause structure is required in English. In other words, a change in the animacy/intentionality of the external argument of *eat* forces the necessary appearance in English of the particle *away*, hence of a Small Clause structure. Conversely an animate subject of a verb of consumption (e.g. *John* in (18a)) may felicitously be combined with a nominal complement. Similar facts obtain in Italian, where the change to a structure containing reflexive ‘*si*’ is associated with an inanimate subject, as in (18g)–(18h). Folli and Harley (2005) analyze this paradigm by assuming that the ontology of external argument-introducing little *v* (Kratzer, 1996) has to be expanded: little *v* comes in different flavours depending on two things, the external argument it introduces and the complement it takes. True Agent-selecting v_{DO} may take a nominal complement, while the v_{CAUSE} which can introduce Causer external arguments *c*-selects for a Small Clause complement. In the terms of the discussion here, v_{DO} requires a teleologically-capable Agent argument in its specifier, while v_{CAUSE} does not. Hence, when a DP which can only be a Causer, not an Agent, with respect to the verbal activity (such as *the sea*, above, due to its teleological (in)capability), is inserted in the external argument position of *vP*, it forces an interpretation on the sentence according to which little *v* is CAUSE, not DO. In that case, the complement to *v* is required to be a small clause, rather than a nominal. Accordingly, the structures proposed for the two constructions in English and Italian are illustrated in (19) below^{13,14,15}:

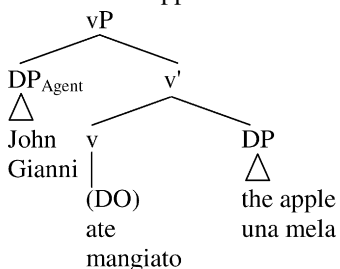
¹³ The treatment of *si* as a realization of the head of a functional projection rather than as a pronominal clitic in these and other constructions is motivated in Italian in Folli (2001), in Spanish by Zubizarreta (1987) and Zagona (1996) and in Kannada by Lidz (1998).

¹⁴ We assume that the Italian word order (participle-object, not object-participle as shown here) is either derived via head-movement of the participle upwards in the tree, or is the result of a base-generated participle-object order in accordance with the rightward-specifier hypothesis of Guasti (1996) for Italian causatives (see Folli and Harley, in press, for discussion).

¹⁵ Note that the verb root in the English structures and in the Italian verb of consumption appears directly in v° , rather than arriving there via head-movement from a projection lower in the structure. We assume the existence of a Manner Incorporation operation, quite free in English but only somewhat available in Italian (Talmy, 1986), which permits v° to be merged with an element describing the Manner component of the event. For some discussion, see Harley (2005), Folli and Harley (2006).

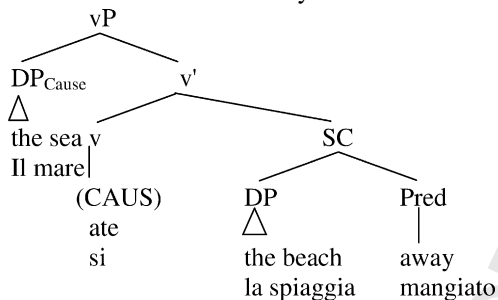
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- (19) a. John ate the apple/Gianni ha mangiato la mela



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- b. The sea ate the beach away/Il mare si é mangiato la spiaggia



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What is crucial is that although the two languages present several differences in the actual morpho-syntactic realisation of the augmented structure, (in English the Small Clause appears with a particle as the predicate, while in Italian it is the participle itself that realizes the small clause predicate), the structural change introduced is identical in the two languages, i.e. a small clause is present with the non intentional external argument.¹⁶

The same structural account seems in fact to apply to the examples discussed above in section 2 with verbs of sound emission such as *whistle*. On the one hand, we argued, the notion of teleology was crucial in accounting for the array of nouns (as in *John/the train whistled*) that could occur as proper initiators: only entities that can produce or generate the event, in this specific case a whistling event, can be ‘agents’. On the other hand, we also discussed examples such as *The bullet whistled *(into the room)* whereby the availability of a (non-teleologically capable) Causer as the external argument of ‘whistle’ is again associated with a change in the syntactic structure: a Small Clause introduced by the secondary predicate ‘into’ has to be present for the sentence to be grammatical.¹⁷ On the present account, this, again, is intrinsically connected to a change in the light verb realized by the predicate ‘whistle’ and more generally this is a case where the presence of a non-teleologically capable Causer, rather than a teleologically capable Agent, has an effect on the syntactic structure required.

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¹⁶ We follow here several proposals regarding the structure of resultative Small Clauses as in Chomsky (1981), Stowell (1983), Kayne (1985), Hoekstra (1984), Levin and Rappoport-Hovav (1995), Harley (1995) and Mateu (2002), among many others.

¹⁷ Notice that in this case the little *v* that is instantiated is the flavour little *v*_{BECOME} which takes a SC complement but lacks an external argument.

405 **7. Conclusions**

406 In this paper, we have argued that the notion of teleological capability is crucial in correctly
407 diagnosing apparent animacy effects in the interaction of grammar and conceptual structure. The
408 relevant notion which distinguishes Agents from Causers is the subject's internal teleological
409 capability of generating the event on their own, from start to finish—not the animacy of the
410 subject. The two notions overlap in many cases, since there are many verbal events which can
411 only be generated by animate entities, but in the case of verbal events which can be internally
412 generated by inanimate entities, we see that the syntactic behavior of the external argument does
413 not change. Conversely, Causers (again which may be animate or inanimate) may trigger the
414 initiation of an event, but do not exercise control over its unfolding, due to their teleological
415 *incapability*. (The same remarks obtain with respect to Possessor versus Location interpretations
416 of *have*, in section 3 above.)

417 In the last section, we put forward a view according to which the v° which introduces the
418 external arguments is different when the external argument is a Causer, rather than an Agent, and
419 supported this argument with evidence from a change in the requirements on the internal
420 structure of the VP when the external argument's role in the event changes. Although we have
421 ascribed the distinction to the c-selectional properties of the particular v° which introduces the
422 Agent or Causer argument above, it is rather perhaps because Causers cannot control the resultant
423 event that the extent of the event in question must be structurally specified with a small clause
424 complement when the subject is a Causer, rather than an Agent—that is, this may also be an
425 s-selectional effect, rather than a c-selectional effect. We leave this possibility open for future
426 research.

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513 **Further reading**

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