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THE ENGLISH MIDDLE AND INCHOATIVE

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Abstract: I will show that the evidence advanced by syntactic approaches to the English middle holds also for some inchoative clauses. Most approaches to the English middle and inchoative, whether syntactic or lexical, define the middle as implying an arbitrary agent and the inchoative as not. This definition will bring about a group of clauses which imply a non-arbitrary agent and thus may not belong to either category. I will show that the agent implication involved in the middle comes from pragmatic effects based on the generic property reading of the clause and the lexical conceptual structure. The major difference between the middle and inchoative is related to event structure: a generic property vs. event reading respectively. That is, the two constructions are two subtypes of the unaccusative. The theory of *arb* in various disguises turns out to be unnecessary.

I. Introduction

Most recent research has assumed that the middle (1a) and the inchoative (1b) are two different constructions, similarities being only superficial:

(1) a. The wall paints easily. (Middle)
    b. The vase broke. (Inchoative)

In both the surface subject is a logical object and the verb is in active form. It has been accepted that the middle implies an agent in some way or another, while the inchoative does not. The inchoative expresses an event in time, whereas the middle expresses the surface subject's permanent property. Most research on the two constructions has focused on how middles differ from inchoatives, rather than how they are related to each other. In addition, since there has been general agreement that inchoative verbs are derived in the lexicon, one of the main issues in the relevant research has been whether middles are derived lexically or syntactically. The advocates of lexical derivation can be divided into two groups: those who regard the inchoative and middle as two separate constructions, and those who regard them as two subtypes of a single construction. Among the former are Fagan

(1988), and Ackema and Schoorlemmer (1994, 1995); and among the latter are Hale and Keyser (1987, 1988). Lakoff (1977), van Oosten (1977), and Jaeggli (1986) make no distinction between the two constructions. Advocates of syntactic derivation of the middle are Keyser and Roeper (1984), Fellbaum (1985), Fellbaum and Zribi-Hertz (1989), Stroik (1992, 1995), Hoekstra and Roberts (1993), Cinque (1995), and Levin and Rappaport Hovav (1994, 1995).

In this paper I will focus on two aspects of the middle-inchoative correlation. First, I will point out that the evidence given by syntactic approaches to the middle — to show the covert syntactic presence of the implied agent — holds also for some inchoatives, with the same line of argument. Inchoatives are generally believed not to imply an agent. Second, I will point out that most researchers have started their analyses of the middle from the illusive assumption that middles, unlike inchoatives, consistently involve an implicit arbitrary agent. Most theories of the middle and inchoative that define the middle as implying an arbitrary agent and the inchoative as not, will bring about a group of clauses which imply a non-arbitrary agent and thus may not belong to either category. I will provide substantial evidence that the agency implication involved in the middle comes from pragmatic effects based on the generic property reading of the clause and the lexical conceptual structure of the verb. It will turn out that, in the long run, both the middle and inchoative are unaccusatives, which are to be derived in the lexicon, as suggested by Hale and Keyser (1987, 1988). The theory of *arb*(itrary) in various disguises for the implied arbitrary agent involved in the middle will also turn out to be unnecessary. The major difference between the middle and inchoative is related to event structure: a generic property versus event reading respectively. Once we recognize this, much confusion involved in the literature of the two constructions will disappear.

II. Syntax of the implicit agent in the middle

It is well known that middles cannot take *by*-phrases and purpose clauses:

(2) a. *The wall paints easily by John.
     b. *The wall paints easily to save time and money.

Passives, however, can freely occur with these expressions:

(3) a. The door was opened by John.
     b. The door is opened to let the air come in.

Also, middles do not occur with adverbial phrases which are agent-oriented (Fellbaum 1985; Fellbaum and Zribi-Hertz 1989). Passives, on the other hand, can occur with agent-modifying adverbials readily:

(4) a. *The wall paints expertly.
  b. *The trees cut deliberately.
  c. *The car drives proudly.
(5) a. The wall is painted expertly.
  b. The trees are cut deliberately.
  c. The car is driven proudly.

This distribution has led Jaeggli (1986) to conclude that passives have an implicit agent, whereas middles do not. Fellbaum and Zribi-Hertz (1989; F&Z hereafter), however, argue that the incompatibility of a middle with a purpose clause is not due to the absence of a controller (i.e., an implicit agent), but due to the incompatibility of the purpose clause with the property reading which the middle in the main clause renders. They also contend that the agent-modifying adverbs cannot occur with middles, because the implicit agent is arbitrary, i.e., any potential agent, and thus an adverbial modifier in a middle must not posit any trait in the agent, as in (4) above.

However, F&Z have failed to mention that inchoatives behave similar to middles, as illustrated in (6):

(6) a. *The door opened by John.
  b. *The door opened to let the air come in.
  c. *The door opened expertly/deliberately/proudly.

These inchoatives do not render property interpretations. They do not involve an implicit agent, either. Yet, they are as bad as the middle counterparts. Thus, F&Z's arguments are not compelling and are beyond generalization encompassing both middles and inchoatives.

Hoekstra and Roberts (1993; H&R hereafter) have based their analysis of the middle on the assumption that the argument structure of a verb does not change before it projects to the syntax, and on the Projection Principle, which reads '[t]hematic properties of lexical items must be structurally instantiated at all syntactic levels of representation (DS, SS, LF)' (p.185). H&R maintain that since middles imply an arbitrary agent, i.e., a logical subject argument is semantically present, the argument must somehow be instantiated at all syntactic levels.

They point out a parallel between the middle and the Tough-Movement construction (p.186) :

(7) a. This floor is nice PRO to wash.
   b. This floor washes nicely.

In the Tough-Movement clause (7a), they argue, the experiencer of the adjective *nice*, which is the same as the subject of the verb *wash*, obligatorily binds PRO. The clause should, therefore, mean that 'it is nice for x that x wash the floor' (p.186). Likewise, the experiencer of *nicely* in the middle is the same as the logical subject of the verb *wash*. H&R believe that this referential parallel between the middle and Tough-Movement construction constitutes evidence for syntactic presence of the agent argument in the middle.[1] They assume that the implicit agent argument in middles is *pro* with arbitrary reference. They claim that *pro* in middles is assigned *arb* by a licensing mechanism that is different from the *arb* licensing mechanism in passives, and it is syntactically inactive unlike *pro* in passives. Hence the syntactic behaviors of the middle as shown in (2-4). They, however, do not provide empirical evidence for the presence of *pro* in middles, but simply base their arguments on the agency intuition and the Projection Principle. Therefore, there is little evidence for the syntactically inactive element *pro*.

Another problem with H&R is that one can felicitously argue, using the same arguments, that some inchoatives can also have a syntactically instantiated logical subject, which is contrary to their claims. Consider the following:

(8) a. The door opened easily.
   b. The books sold well.
   c. The car drove nicely.
(9) a. The door was easy PRO to open.
   b. The books were good PRO to sell.
   c. The car was nice PRO to drive.

The experiencer of the adverbs in the inchoatives in (8) must be the same as the logical subject of the verbs. Likewise, in the Tough-Movement counterparts the experiencer of the adjectives must be the same as the referent of the PRO. Therefore, the evidence H&R have provided for the structural presence of the external θ-role in a middle is self-contradictory and thus not compelling, unless they admit that inchoatives such as those in (8) also have an external θ-role for the logical agent subject that is somehow syntactically instantiated.

Stroik (1992, 1995) provides two pieces of evidence for the syntactic presence of the external θ-role in a middle: subject-contained anaphors and the occurrence of a *for*-agent PP in middles:

(10) a. Books about oneself never read poorly.
   b. Letters to oneself compose quickly. (1992:129)
   c. The candidates disagree so much that [today's negotiations with each
       other] will surely end abruptly. (1992:130)

(11) a. That book reads quickly for Mary.
   b. No Latin text translates easily for Bill. (1992:131)

Stroik claims that, in accordance with Principle A of the binding theory, the
reflexives in (10) must be bound; in addition, since the external θ-role can be
syntactically expressed as in (11), the external argument of a middle verb is not
syntactically discharged.

First, as in the case of H&R above, the same arguments hold for some
inchoatives, too:

(12) a. The candidates disagreed so much that [today's negotiations with
       each other] ended abruptly.[2]
   b. The door opened surprisingly easily for Mary.

Second, Stroik has not provided any explanation for why the realization of the
external θ-role must be in the form of a *for*-phrase, not a *by*-phrase. As Ackema
and Shoorlemmer (1995) have pointed out, the agent NP in a *for*-phrase is not
necessarily a realization of the external θ-role of the verb.

(13) a. This medicine is good for Mary.
   b. This book is very easy for Bill.

Mary and Bill in the *for*-phrases here have been realized as an agent who will take
the medicine (13a), and who will read the book (13b). They are, however, not the
external θ-roles of the verbs in any sense of the term (see Zribi-Hertz 1993 for
criticism from different point of view).

The same arguments can also apply to clauses with a subject-contained
anaphor:

(14) a. Books about oneself are often embarrassing for authors.
   b. Books about herself are boring for Mary.
   c. *Books about himself are boring for Mary.

Again, the agents in the adjunct phrases are in no way the external θ-role of the
verb, but still they bind the anaphors via feature agreement (14b,c). In this respect,
while *by*-phrases in passives are syntactically adjuncts but thematically arguments,

for-phrases in middles (and inchoatives) are adjuncts both syntactically and thematically. To put it another way, the fact that the agent is realized not in a *by*-phrase but in a *for*-phrase suggests paradoxically that there is no external θ-role instantiated syntactically in middles, contra Stroik.

Fagan (1988) argues that middle formation is a lexical process like the inchoative formation because preposition stranding, a syntactic rule which is allowed in passives via reanalysis, is prohibited in middles and inchoatives.

(15) a. His bed wasn't slept in.
    b. ?The room breaks into easily.[3]
    c. *The room broke into.

Fagan holds that in the lexicon the external argument is deleted in inchoatives, whereas in middles it is assigned the feature *arb*(itrary) and is 'saturated' without being projected to the syntax.

Ackema and Schoorlemmer (1994, 1995; A&S hereafter) argue that the external argument of a middle, when it is arbitrary and thus semantically nonspecific, does not project from the Lexical Conceptual Structure (LCS) to the D-structure subject position. Instead, the internal argument is projected to the D-structure subject position. Whereas, the inchoative, which is a paradigm unaccusative, lacks the external argument altogether. A&S argue that since the S-structure subject of the middle is not D-structure object, but a D-structure subject, middles are unergatives.

I will show in the next section that the arbitrary agency intuition comes from pragmatic effects, not from the *arb* feature assigned to the external θ-role, nor from the predefined arbitrariness of the external argument in the LCS.

A&S raise problems in terms of productivity and intuition, too. But, unlike their observation, K&R have observed that inchoatives are productive. The following illustrate the productivity (K&R: 390):

(16) a. We centralized the department.
    b. The department centralized.

(17) a. The Republicans want to Reaganize the country.
    b. The country refuses to Reaganize.

The idea of A&S — that there is no external argument in the LCS of an inchoative from the outset — entails that the relationship between the inchoative and its transitive counterpart is superficial. In this view there will be only similarities between them, but not more significant, deeper correlates. This view,

for example, will not capture the fact that for some verbs the transitive use is more basic (or canonical) than the intransitive inchoative use, or vice versa:[4]

(18) a. John drove the car.
    b. The car drives/drove so well.
    c. ?The car drove.
    d. *the driving car
    e. *the fast driving car

(19) a. John opened the door.
    b. The door opens/opened easily.
    c. The door opened.
    d. the opening door
    e. ??the easily opening door

(20) a. John folded up the umbrella.
    b. The umbrella folds/folded up easily.
    c. The umbrella folded up.
    d. the folding umbrella (pinched my finger)
    e. easily folding umbrellas

Certainly, the transitive and intransitive uses of the verbs emerge from a single lexical item. A&S must, nonetheless, seek explanations of transitivity alternations as in (18-20) only in the LCS's of either the transitively or intransitively used verbs, i.e., the LCS's of two separate lexical items which happen to be homophones. In this respect, A&S' view clearly lacks an intuitive appeal.[5]

As a matter of fact, the examples in (8) repeated in (21) below raise a fundamental problem to most of the current theories of the middle and inchoative including those discussed about so far, since they define that middles imply an arbitrary agent, and inchoatives do not imply an agent at all.

(21) a. The door opened easily.
    b. The books sold well.
    c. The car drove nicely.

According to this definition, the examples in (21) are stranded, belonging to neither category. They may not belong to the middle because they do not imply an agent that is arbitrary. At the same time, they may not belong to the inchoative, because they do imply an agent in some way or another. Most of the recent theories are simply mute about clauses like those in (21). In the theory advanced in this paper, these clauses belong to the inchoative, because the inchoative and

middle only differ in their event structures (i.e., event vs. generic property), and the inchoative is eventive.[6]

III. Reconsideration of the agent implication in middles

Fellbaum (1985) has stated that while inchoatives imply a cause, middles imply an arbitrary agent. In fact, all research into the middle assumes that it implies an arbitrary agent, except for H&K (1987, 1988). H&K have suggested that the agent implication is not a defining factor of the middle. For example, they pointed out that the agency intuition in a middle weakens considerably without an adverbial:

    (22) a. This bread won't cut. (Cf. This bread cuts easily)
           b. This bread cuts. (contrastive)

However, since these clauses still imply an agent in some way or another (even strongly for some speakers), there seems to be nobody who has paid adequate attention to H&K's suggestion which might invalidate all the arguments of middles that are based on the agent implication.

In general, the middle has been paraphrased in the following fashion, i.e., as rendering a generic 'doability' interpretation (the term 'doability' is taken from Fellbaum (1985)):

    (23) a. The wall paints easily.
           b. People, in general, (or anybody) can paint the wall easily.

As Lakoff (1977) and van Oosten (1977) pointed out, however, clauses like (23a) have a subject which is responsible for the action denoted by the verb. Thus, the wall, which has particular properties, is responsible for the easiness of painting it. Therefore, (23b) is not a complete paraphrase of the middle in (23a), but it only comprises the subordinate clause of the whole paraphrase, which reads like (24):

    (24) The wall has properties such that anyone can paint it easily.

This paraphrase of a middle has an important consequence. A close look at it will reveal that the doability interpretation is nothing but a pragmatic implication of the proposition expressed by the middle. This is clearly shown by the fact that a middle can constitute a reason clause followed by a conclusion clause which is the very alleged 'paraphrase of the middle':

(25) a. This wall definitely paints easily, so *anybody can paint it.*

b. The bread cuts really easily, so *anybody can cut it.*

c. The umbrella folds up easily, so *anybody can fold it up.*

If a middle already renders a generic doability interpretation, then adding a generic doability clause which is introduced by a conclusive conjunction *so* should somehow produce tautological effects.[7] Regarding this aspect, it is interesting to compare those in (25) with the agentless passive counterparts in (26) which have an implicit agent with arbitrary reference. Since the passives contain an implicit agent and thus entails generic doability, they are not expected to occur felicitously with a *so-anybody-can* clause, i.e., another generic doability clause. This appears to be true:[8]

(26) a. *This wall is painted definitely easily, so *anybody can paint it.*

b. *The bread is cut really easily, so *anybody can cut it.*

c. *The umbrella is folded up easily, so *anybody can fold it up.*

(The passive part from Fellbaum (1985: 27))

Although this evidence is semantic, I believe that this is very substantial evidence that middles do not involve an external θ-role in them. It should be pointed out that all the research concerning the middle discussed above has been based on the 'semantic fact' that middles imply an agent. Since it has been proved that the fact in question is not semantic but only pragmatic effects of the generic property reading of the middle clause, we can now see that the fact – that middles, unlike passives, cannot occur with *by*-phrases, purpose clauses, and agent-modifying adverbials – really constitutes syntactic evidence for the absence of an external θ-role.

A word is in order regarding the arbitrariness of the implicit agent involved in the middle. I have shown so far that there is no syntactically instantiated external θ-role, and that the feeling of arbitrariness of the implied agent comes from pragmatic effects of the generic property reading of the middle clause. For this reason, no argument needs to be assigned the *arb* feature in the derivation of the middle. Therefore, I claim that the middle is derived in the same way as the inchoative. I assume that in both middle and inchoative the external θ-role is deleted. This amounts to claim that both middle and inchoative are unaccusative, which is in accordance with the general thesis of H&K (1987, 1988). They differ in event structure: while the middle is non-eventive and express a generic property of the subject, the inchoative denotes an event.[9] The agent implication should not be a

criterion for the middle-inchoative distinction. Therefore, the clause in (27), which does not necessarily imply an agent, is a good example of the middle, too:

(27)   The vase breaks easily.

Notice that this clause can be ambiguous with regard to animacy of the implied causer: inanimate cause or agent.[10] So, we get either a reading that the vase is fragile in nature, or a reading that it is easy to break the vase. This ambiguity, however, does not originates from transitivity of the verb, but from pragmatics. That is, the clause has one meaning (i.e., the vase is fragile), but there are two situations in which the clause is used (e.g., natural falling and volitional breaking). As seen in (25), the agentive reading is a pragmatic consequence of the property reading of the clause: the vase is fragile, so it is easy to break it. In this case, of course, the implied agent is arbitrary.

IV.   Future Research for the Unaccusative Account of the Middle

One may ask, if both middles and inchoatives are unaccusatives, then why is it that all the inchoative verbs can form middles, but not all middles can form inchoatives (e.g., *paint, translate, wash*, etc.)?[11] This question does not raise a problem at all for the non-unaccusative view of the middle because the middle and inchoative are independent of each other. It is, however, a task that the unaccusative approach to the middle will have to immediately face.

It is noteworthy, however, that clauses with a property reading tend to be more generous with argument suppression. An object, for example, is more easily deleted with a property reading than with an event reading:

(28)   a.   That movie always shocks. (Levin 1993:38)
      b.   *That movie always shocked.
(29)   a.   John kills. (K&R, 382)
      b.   *John killed yesterday.

Given that both the middle and inchoative involve suppression of an argument, and given that the crucial difference between the two constructions is generic property (= non-event) vs. event reading, it is not unreasonable that the discrepancy between the middle and inchoative verbs is somehow associated with the property vs. event reading, i.e., the event structure of the constructions. The external argument is more readily suppressed in middles which render a generic property reading than in inchoatives which are eventive. The issue thus is why the argument

deletion is more generously allowed with a generic property reading. This question, of course, is not confined to the middle and inchoative alternations only, but also holds for property vs. event reading in other constructions such as Null Object constructions.

H&K (1987) have pointed out that the pair *kill* and *die* brings an empirical problem to the unaccusative account of the middle: if we already have the verb *die*, which is apparently the most approximate unaccusative counterpart of the transitive verb *kill*, there will be no pressing need for *kill* to undergo middle formation as in *Chickens kill easily* (cf. *Chickens die easily*). H&K (1987) have left this problem open.

As a matter of fact, the verb *die* in English shows unergative behavior in several respects. Levin (1993), Levin and Rappaport Hovav (1995), have observed that unaccusative verbs are excluded from undergoing the cognate object and X's *way* pseudo-object construction. It appears that *die* in English may undergo the formation of these constructions (see Macfarland 1995 for detail):[12]

> (30) a. John died a strange death.
> b. The tree died an untimely death.
> c. ?John died his way to fame. (not perfect but acceptable)

If *die* in English is on the unergative side of the unergative-unaccusative continuum, then the verb *kill* in a middle will no longer be an unexpected occurrence.[13]

V. Conclusion

I have shown that middles do not contain an agent θ-role in their syntax, and that they involve the agency implication, not on the basis of syntactic instantiation or the assignment of the feature *arb* to the external θ-role, but on the basis of pragmatic interaction. It has thus turned out that the prohibition of the occurrence of the purpose clauses, agent-oriented adverbials, and *by*-phrase in middles (and inchoatives) really constitutes evidence for the absence of the external agent θ-role in those constructions. I have also pointed out that all the theories with the definition (except for H&K) – middles render a generic property reading and imply an arbitrary agent, while inchoatives render an event reading and do not imply an agent – bring about a group of stranded examples which are most naturally supposed to belong to either category, but may not. It raises a serious problem in all the approaches with the assumption that middles differ from inchoatives in terms of arbitrary agent implication.

I have argued that both middles and inchoatives are unaccusatives, and are derived in the same fashion in the lexicon, as far as the argument structure is concerned, as H&K (1987, 1988) suggested. They only differ in event structure: while the middle expresses a generic property of the subject, the inchoative describes an event. The agency implication should not be a criterion for the middle-inchoative distinction. Therefore, it is not true that middles always imply an agent; and it is also not true that inchoatives may not imply an agent.

NOTES

[1] In derivation of the surface subject, the Tough-Movement clause is different from the middle. The matrix subject NP of the former is base-generated, while that of the latter is derived through movement from the object position (the level in which this movement takes place varies depending on the theory).

[2] Regarding this and (10c), some native speakers prefer to say '... so much with each other that ...' What is important here is to point out logical problems with Stroik's arguments. In fact, (10c) is an instance not of a middle, but of an inchoative. It does not describe a property of the subject, but describes an event which will happen in the future. Thus, this example consists of evidence against Stroik's claim in this respect, too.

[3] K&R use this clause as evidence for a middle as a syntactic process. Fagan, on the contrary, uses it as evidence for lexicality of the middle, arguing that K&R still cannot explain why preposition stranding can freely occur in passives but marginally at best in middles. See Fagan (1988) for detail.

[4] Notice that K&R utilize this distribution to determine middle-ness or inchoative-ness of a clause. This distribution, however, only serves to measure the transitivity of a verb as a base form. Therefore, the verb *open* in (19), for instance, shows a pattern that is not in consonance with K&R who utilize (19c,d) for intransitivity (i.e., inchoative-ness), and (19e) for transitivity (i.e., middle-ness). The present tense form in (20b) has been given as a good example of a middle (Fellbaum 1985), but passes all the tests (20c-e), to the contrary of K&R's assumption.

[5] It is true that there are many lexical items which totally lack an external argument in lexicon: *arrive, disappear, fall*, etc. Clearly, by inchoative verbs, A&S do not refer to verbs like these only.

[6] Notice that the clauses in (21) are describing a property of the subject, too. What they refer to, however, is not a generic, or permanent property, but a temporary property.

[7] Tautological effects or propositional redundancies are very common in natural languages. They, however, are usually visible. In *You can do it, so you can do it*, for instance, the redundancy in the proposition is clearly visible. It is not visible in the clauses in (25).

[8] Some speakers prefer the adverb before the main verb rather than after it in the passives. Acceptability has appeared to change in neither case, however.

[9] The detail of the event structure derivation of the middle will not be discussed in this paper. A&S (1994) argue that a verb loses its e(vent)-role via middle formation. The loss of the e-role, however, is not a characteristic which is confined to the middle. It holds for all constructions with a generic property reading. Thus, an e-role will be lacking in *John runs fast* (in a property reading), but it will be realized in *John is running fast*, for example.

[10] I use the term causer in the sense of someone or something that initiates the event.

[11] Here, I assume K&R's grammatical judgements. In fact, the native speakers I consulted accepted past tense (i.e., inchoative) counterparts (e.g., *The wall painted easily, Greek translated easily*, etc), creating themselves a context for them.

[12] The so-called typical English unaccusative verb *fall* also may pass the tests at least for some speakers, although it tends to produce humorous effects slightly more than the verb *die* does:

(i) a. John fell a strange fall,
    b. The tree fell a lousy fall.
    c. ?John fell his way to fame.
    d. ?John fell his way home. (?* for some speakers)

Levin (personal communication) mentioned that she and others she asked did not accept the cognate object clauses with *fall*, and were not very happy with the X'*s way* clauses. She suggested that there might be meaning difference among the speakers using the verb. In fact, a less humorous context for (ic) above, for instance, is that of a play in which an actor or actress's nice performance has led him or her to a good fame. But then, this use of the verb may not be felicitously called unaccusative, since the action denoted by the verb can be seen as conscious and possibly volitional.

[13] Levin (p.c.) and Macfarland (1995) suggest that *perish* in English behaves more like the unaccusative *die* of other languages, whereas *die* in English behaves more like an atelic activity verb.

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