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MIDDLES, TOUGH, AND RECIPE CONTEXT CONSTRUCTIONS IN
ENGLISH*

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0. Introduction

I will present a view of middle constructions which accounts for several of their key syntactic and semantic properties. The analysis rests on the observation that there are important similarities between middle constructions (1a), tough constructions (1b), and recipe context null object constructions (1c).

- (1) a. This bread cuts __ easily.
b. This bread is easy to cut __.
c. Take bread. Cut __ carefully (and place __ in pie plate.)

I claim that in all three constructions there is a Case-marked empty category in object position which is identified by a non-thematic element in subject position. The identification relation is licensed by the presence of either a "tough"-like or modal element in INFL or by the imperative element. This view of middles contrasts with that of Roberts (1985) and Keyser & Roeper (1984) who consider middles to involve

no syntactic empty category, and with that of others such as Guerssel et al (1985) and Hale & Keyser (1986,7) who consider middles to arise from Move NP and to thus involve a non-Case-marked trace.

1. Background Assumptions

My view of the lexicon and of projection comes essentially from the work of Hale & Keyser (H&K), Levin & Rappaport (L&R), Guerssel, and others.¹ I assume the level of lexical representation of Lexical Conceptual Structures (or LCS) where the meaning of the verb is given with semantic arguments represented by variables. In (2) we see the LCS for CUT.

(2) Lexical Conceptual Structure (H&K,1985)

CUT: x produce linear separation in the material integrity of y by sharp edge coming into contact with y.

I assume also that each verb has associated with it a Predicate Argument Structure (or PAS), onto which variables in the LCS are mapped. The precise characterization of the mapping is not relevant here, and there are lots of possibilities. What is important is that the variable corresponding to theme is mapped to an internal argument position in the PAS, and that the variable corresponding to agent is optionally mapped to the external argument position in the PAS. One way of looking at this then, is to say that there are two PASs for a verb with an agent and a theme. So break for example, has the LCS in (3a) and the two PASs in (3b and c).

- (3) a. LCS: BREAK ...x...y...
 b. PAS1: break x (y)
 c. PAS2: break — (y)

With respect to Case Assigning properties of verbs, we assume for the moment, that verbs are [C(ase) A(ssigning)] in the lexicon (cf. H&K,1986,7). This will be modified later. And finally, we assume also the conditions in (4) and (5).

(4) Chain Conditions

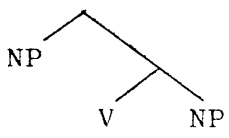
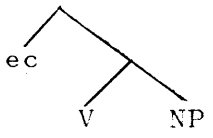
- a. A-positions must be enchainned.
 b. Chains must be theta licensed.
 c. Heads of chains are [+Case] [-Theta-role]*.
 d. Tails of chains are [-Case]* [+Theta-role].
 * true only of chains with more than one member.

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- (5) The Extended Projection Principle
 (cf. Chomsky, 1981,1982, Rothstein,1983)
 a. Linked positions must be projected.
 b. Clauses must have subjects.
 c. Projected positions must remain constant at all levels.

2. Transitivity Alternations2.1 Ergatives

Given the assumptions of Part 1., the lexical entry (3b,c) will project as in (6a,b).

- (6) a.  b. 
 Mary break glass break glass

The situation now is basically as in H&K. For each of (6a,b) the verb may theoretically be either [+CA] or [-CA] in the syntax. However, in (6a) only the [+CA] value will result in a good sentence since the object (glass) needs Case. For (6b) of course, only [-CA] will result in a grammatical sentence, since otherwise the Chain conditions will be violated, since the subject/object chain will receive two Cases. Thus, we get (7).

- (7) a. Mary broke the glass.
 b. The glass broke.

2.2 Non-affecting Verbs

An immediate problem with the view here is that not all two variable verbs can undergo these options. We now look at verbs which are unable to form ergative constructions as in (7b). There are two types of such verbs. One type cannot form ergatives but can form middles. These will be discussed in a moment. The other group consists of verbs which cannot form either ergative or middle constructions.

- (8) a. *The ideas knew.
 b. *These ideas know easily.
 c. *The mountains saw.
 d. *The mountains see easily on a clear day.

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- e.*John believed to be a fool.
f.*John believes easily to be a fool.

These verbs belong to the so-called "non-affecting" class of verbs, that is, verbs which do not "affect" their objects. Affectedness will not be discussed here.² We will simply follow Roberts (1985) in adopting the constraint of Jaeggli given in (9).

(9) Affectedness Constraint (Jaeggli, 1986)

If a complement of X is unaffected, it is impossible to eliminate the external theta role of X.

(9) prohibits non-mapping of the external argument of non-affecting verbs to a PAS positions. Hence, the sentences in (8) are not possible, since middles and ergatives involve non-mapped external arguments.

2.3 Middles

We now turn to the other class of verbs, that is the verbs which cannot undergo ergative formation, even though they are not non-affecting verbs. Examples are seen in (10).

- (10) a.*The brown bread cut.
b.*The baseball hit.
c.*The blouse washed this morning.
d.*The soup ate.

These verbs, however, unlike non-affecting verbs, do show up in structures where a normally internal argument acts as subject, namely, in middles.

- (11) a. The brown bread cuts easily.
b. These baseballs hit like a dream.
c. This blouse washes quickly.
d. The soup that eats like a meal
(Campbell's soup ad)

There have been several analyses proposed for these structures, which we will not discuss here so as instead to focus on some aspects of middles not usually discussed. However, we will consider one recent analysis, that of H&K (1986,7).

3. The Nature of Middles

H&K assume that a verb such as cut can in fact undergo "ergativity" which can be defined as the non-projection of the external argument, with a [-CA] verb

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and Move NP of the object to subject position. But, when this happens, a middle construction results, rather than an ergative. Thus, for them, there is no relevant syntactic difference between sentences such as "This glass broke." and "This bread cuts easily.". The differences are due to the fact that the meaning of a verb such as cut necessarily involves an agent in a way that the verb break does not. This difference is reflected in the formulation of the LCS, where the basic LCS for a middle is as in (2) and that of an ergative is as in (12), with no agent.

(12) Lexical Conceptual Structure (H&K, 1986)

BREAK: x come to have a separation in material integrity

The result is that the difference between an ergative and a middle is non-syntactic, depending on the LCS from which the sentence has been ultimately projected.

I believe there are problems with this view and would like instead to propose that the middle and ergative constructions differ syntactically. There are three points to be made.

First, the view of H&K doesn't adequately account, I believe, for the additional semantics of the middle construction, such as their non-eventive nature as discussed by Roberts, and the fact that adverbs or modals are usually present in middles. Their analysis does not correlate the two facts that the theme appears as subject and that the middle has a marked semantics. We will discuss this point further in a moment.

The second problem is seen when we examine certain other languages. In Guerssel et al it is argued that other languages make the same split between ergative and middle verbs as does English, that is, Move NP with verbs such as break forms ergatives, and Move NP with verbs such as cut forms middles. But, this does not appear to be true in all languages. For example Haitian Creole (HC) allows simple intransitives to be formed on verbs such as cut as well as on verbs such as break.³

(13) a. Zâ kase vE a
 John break glass Det
 "John broke the glass."

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- b. vE a (ap) kase
 glass Det (Asp) break
 "The glass broke/is broken/has broken."
 ("The glass is breaking/is being broken/will
 break.")
- (14) a. Mari kupe pÊ â
 Mary cut bread Det
 "Mary cut the bread."
- b. pÊ â (ap) kupe
 bread Det (Asp) cut
 "The bread is cut/has been cut."
 ("The bread is being cut/ will be cut.")

According to native speakers, there is an agent present in (14b), though not necessarily in (13b). In spite of this, both verbs can freely undergo what we might syntactically call "ergative" formation -- that is, non-adverb licensed, semantically uncomplicated, transitivity alternation where theme becomes subject. This is in contrast with other verbs which may not. In HC, as in English, there is a set of non-affecting verbs which may not be intransitive at all.

- (15) a. Mari kute muzik la
 Mary hear music Det
 "Mary heard the music."
- b. *Muzik (la) kute (byen/fasilmâ)
 music (Det) hears (well/easily)
- (16) a. Zâ wE mon yo
 John see mountain Det-pl
 "John saw the mountains."
- b. *mon (yo) wE (byen/fasilmâ)
 mountains (Det) see (well/easily)

However, there's also a group of verbs which can appear as intransitives only if they are adverb licensed. The verbs in this class seem to be a subset of non-affecting verbs, but they may appear in middles.

- (17) a. Mari aprân lêng na
 Mary learn/acquire language Det
 "Mary learned/acquired the language."
- b. *lêng na aprân
 language Det learn/acquire

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- c. lâng na aprân fasilmâ
 language Det learn/acquire easily
 "The language learns/acquires easily."
- (18) a. Zâ moke ti mun yo
 John imitate child Det-pl
 "John imitated the children."
- b. *ti mun yo moke
 child Det-pl imitate
- c. ti mun yo moke fasilmâ
 child Det-pl imitate easily
 "The children imitate easily."

From this it seems that the mandatory presence of an agent in the LCS of a verb is not sufficient to force a "middle" reading whenever the theme of the verb appears as subject.

A third reason why I consider that the middle construction should not be tied to the notion of implicit agent is that it is far from clear whether some sentences should not be considered middles even though there is no implicit agent. Two examples types are first, sentences where there is simply no implicit agent (19a-d), and second, sentences where there is even an explicit agent and where the theme, if there is one, appears in object position (19d,e). Such sentences might well be considered as middles, I believe.

- (19) a. Accidents happen easily.
 b. This glass breaks easily. (i.e. it is fragile.)
 c. Some problems arise easily.
 d. Royalists die well under torture.
 (heard on TV)
- d. Some players hit home runs easily.
 e. Happy children learn well.

The middle reading is characterized, then, not by the presence of a semantic agent, but by a type of tense or what we will call modality on the sentence. This view is related to the insights of Roberts (1985). This modality gives the non-eventiveness of middles and the reading that the subject is responsible for the truth of the proposition, by having some property which makes the proposition true.

Having given three arguments against H&K's view of middles, we must find another way to characterize verbs which cannot undergo ergative formation. But we still want to reflect the fact that in English, these verbs are those whose meaning requires an implicit agent while in HC, they are a subset of non-affecting verbs. To do this, we can use the syntactic feature of [+CA]. This syntactic feature exists as a property of certain verbs in a language, where the unmarked association seems to be with verbs that contain a mandatory agent in their LCS. In HC, however, a different set of verbs, a subset of non-affecting verbs, appears to have this property. Intuitively, [+CA] appears to characterize a degree of transitivity intermediate between non-affecting verbs and ergatives. Note that [α CA] verbs can be [+CA] and hence can be middles as well as ergatives.

So, now it is clear that cut cannot be ergative. Its lexical entry is as in (20)

(20) LCS: CUT ...x...y...
PAS1: cut [+CA] — ()
PAS2: cut [+CA] — ()

If a [+CA] verb is generated with only an internal argument, no grammatical S-structure can result, due to the conditions on chains in (4).

4.0. The Formation of Middles

We now face the problem of how middles are formed, given the configuration as in (21).

(21) NP V ec
 [+CA]

(21) raises several questions, such as; How is the ec licenced?; How is its reference fixed?; and How does the NP in subject position get there?

4.1. Middles and Tough Constructions

To answer the questions posed above, we look at similarities between middles and tough constructions. The similarities are striking on an intuitive level, and it is suggested here that there are syntactic similarities too.

First, middles require a licensing adverbial, usually of a type referring to the easiness or difficulty of the event.

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- (22) a. This bread cuts easily.
 b. That bureaucrat bribes only with difficulty.
 c. Love letters write easily.

Middles can also be licensed with a modal (cf. Vinet, 1986)

- (23) a. This bread sure can cut!
 b. This blouse might wash in cold water.
 c. Some bolts just won't unscrew.

It's been noted (eg. by Roberts, 1985) that an adverb or modal licenser is not absolutely required in middles.

- (24) a. This bread cuts. (contrastive)
 b. Cut. (damn you)!

However, the sense of (24) involves a modality, which in the unmarked case is one of possibility or ability. The use of an overt modal or adverbial, whether AdvP or PP, can thus be seen as modifying this basic modality which constitutes the middle. (That modals, PPs and Adverbs act as a class in certain ways is discussed in Jackendoff, 1972).

When we look at tough constructions across languages, we find that they are licensed in exactly the same ways as middles, that is by a tough or a modal adjective or verb.

- (25) Kipsigis (Jake & Odden, 1979)

- a. wŪy pè:ndŌ [kŌ-tíI l Mù:sá ec]
 hard meat(sbj) 3s-cut Musa(sbj)
 "The meat is hard for Musa to cut."
- b. nyŌlu kwŌ:ndŌ [kŌ-más ec MŪ:sa]
 necessary woman(sbj) 3s-beat Musa
 "The woman is necessary for ___ to beat Musa."
 ("It is necessary for the woman to beat Musa.")

- Niuean (Seiter, 1980)

- c. ai mukamuka e tagata ia ke fakamaama
 not easy Abs man that Sbjnt explain
 e au e tau mena ki ai
 Erg I Abs Pl thing to him
 "That man is not easy for me to explain things to"

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- d. to maeke e tama e ke lagomatai
 Fut possible Abs child this Sbjnct help
 he ekekato
 Erg doctor
 "This child is possible for the doctor to
 help."

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- e. This car is hard/easy/good to drive.
 f. This car is impossible to drive.

This shared element allows for easy paraphrasing between toughs and middles.

- (26) a. This blouse is like a dream to wash.
 b. This blouse washes like a dream.
 c. This car is good to drive.
 d. This car drives good/well.
 e. This blouse is impossible to wash.
 f. This blouse can't/won't wash.

In addition, toughs, like middles involve the "property" reading for their subjects so that all the subjects in (26) are felt to have a property which makes the proposition true.

Keeping these intuitions in mind, let's look at tough movement. The central problem of tough movement, is how does the non-thematic subject get there? In Massam (1985) it was proposed that the core aspects of tough involve the base generation of an NP in the non-thematic subject position, and the base generation of an empty element in the thematic Case marked object position.

- (27) NP INFL TOUGH [[NP V ec]]

Movement of the empty object then takes place to SPEC of COMP. Here it acts as an empty operator, binding a variable in object position.

- (28) NP INFL TOUGH [OP_i [NP V t_i]]

Finally, at LF, the non-thematic element in subject position and the operator, being coindexed, form a composed chain, allowing the empty operator/trace chain to have its reference fixed.

- (29) NP_i INFL TOUGH [OP_i [NP V t_i]]

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We will not give details here, but we will note a few points. First, it is clear that the analysis violates the Theta Criterion since it involves the base generation of material in a non-thematic (subject) position. I have argued elsewhere that the first clause of the Theta Criterion of Chomsky (1981) given informally in (30), should be abolished.

(30) Theta-Criterion (cf. Chomsky, 1981)

- (i) Every A-position must be a member of a chain which receives a theta role.

This is required in order to account for tough and ECM constructions, and is desirable because it is redundant with a well articulated Principle of Full Interpretation (Chomsky, 1986), which says that an NP must be interpreted. Usually, interpretation of an NP in an argument position is achieved by its receiving a theta role. However, tough constructions are precisely those where an A-chain is not so licensed. Instead the subject is licensed by virtue of being coindexed with and in a particular configurational relation with another chain which does contain a theta position. This same possibility shows up in certain languages in ECM constructions also.

A second point here is that this type of chain composition can only occur across certain elements, namely, those elements commonly referred to as "tough-verbs" which includes adjectives with a tough or modal sense. We will call these elements tough-ADs. There are also locality constraints on LF chain composition, that is the two chains have to be close enough to each other in a way which we will not discuss here.

Now, we propose that middles have a similar analysis. So, (31) involves the base generation of an NP in a non-thematic position and of an ec in the thematic Case-marked object position. We further propose that all middles contain, and are defined by virtue of containing, an element in INFL which is a "tough-AD".

(31) NP INFL V ec
 |
 tough-AD

In middles this Tough-AD consists of a modal like element which has a possibility/ability meaning. It may be further semantically loaded by being modified by either a modal in INFL or by a tough-AD elsewhere in the sentence. The null tough-AD element in

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INFL is similar to the imperative element often supposed to be in INFL in imperative structures .

We now have an obvious question as to the nature of the *ec* in object position of middles. Is it, like its counterpart in tough constructions, an A-bar bound variable with its binder being either in INFL or adjoined to VP? I will reject this possibility, since there are several ways in which tough constructions and middles differ as in (32).

- (32) a. Mary is easy to laugh at.
 b. *Mary laughs at easily.
 c. Some things are hard to tell children.
 d. *These stories tell children easily.
 e. This book is easy to read without liking.
 f. *This book reads easily without liking.
 g. Mary is hard to convince John to talk to.
 h. *Mary considers easily that John likes.

Given (32), it seems that there is little motivation for proposing movement of an operator. This means the Case-marked empty object is problematic.

First we note that it does not appear to be like the empty objects in Romance languages, studied recently by several linguists, in that it does not have an arbitrary reading.⁴

- (33) (Rizzi, 1986)
 La buona musica riconcilia __ con se stesso
 Good music reconciles __ with oneself.

Rather, middle empty objects appear to require, like traces, an external reference, but like *pros* or *wh*-traces, they are Case-marked and form a trivial chain. Descriptively, then, what we appear to be dealing with is a base-generated anaphoric element, or a form of reflexive *pro*. This view is supported by the fact that overt reflexives can appear in this position, if the adverb is of a certain type.

- (34)a. This floor practically washes itself.
 b. His novels are so good, they almost read themselves.

We now have a situation where a base-generated empty object exists which must be coindexed with a non-thematic subject. This might appear undesirable, except for the fact that we find precisely the same

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type of element in other functionally unrelated structures. These structures have been presented in Massam & Roberge (1987) who call them Recipe Context Null Object Constructions (RCNOCs).

4.2. Middles and Recipe Context Constructions

An example of an RCNOC is presented below. (RCNOC data are from Massam & Roberge, 1987.)

- (35) Take the cake mix, 1 cup of water and 3 eggs. Mix ___ well and beat ___ for five minutes. Pour ___ into a well-greased cake pan and bake ___ for 20 minutes. Remove ___ from oven and cool ___.

Like middle null objects, these do not receive an arbitrary interpretation. and like middles, they have the following properties. First, they are bad after prepositions. (Compare (36) with (32b).)

- (36) a. *Take foil. Cover cookies with *(it) immediately.
 b. *Mix the lemon juice and chopped parsley. Then sprinkle scallops with *(the mixture).

Second, they are bad with double object verbs. (Compare (37) with (32d).)

- (37) a. Take cookies from oven. Give your guests *(these cookies) immediately.
 b. Find the children. Give *(them) the cookies immediately.

Middles and RCNOCs are also both ungrammatical when the null object is "too far" from the identifying subject. This is seen in (32h) and in (40). We note finally that, they are also bad in ECM environments. (Compare (38) and (9f).)

- (38) Boil noodles. *Consider/*judge/*assume ___ cooked when soft.

Interesting here is the fact that these null objects are possible only in no-subject imperative structures.

- (39) a. First, take two eggs, 1/2 cup of flour and 3 tsp. sugar. Beat them well and cook the mixture for 5 minutes. Serve it while still warm.

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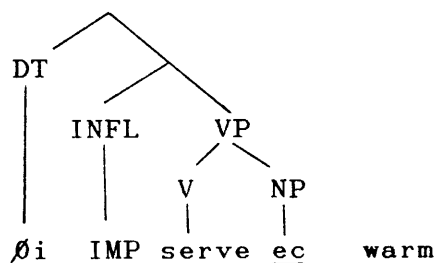
- b. First you take two eggs, 1/2 cup of flour and 3 tsp. sugar. You beat them well and you cook the mixture for 5 minutes. Then you serve it while it's still warm.
- c. First you take two eggs. 1/2 cup of flour and 3 tsp. sugar. *You must beat well, and cook 5 minutes. *You then serve while still warm.

There appears to be a no-subject rather than a null subject requirement here since null objects are not fully acceptable in structures with a null subject such as PRO.

(40) ??You then try [PRO to beat carefully]

This can be accounted for under a view of imperatives which does not mandatorily involve a second person pro in subject position. Hence, the position will be available for a running discourse topic. This topic will then bind the Case-marked, theta-marked null reflexive element in object position.

(41)



Thus middles and RCNO constructions are syntactically identical. This is desirable, since, if RCNO structures are ruled out by the presence of a subject as in (39c), the preferred reading is the nonsensical middle, where, for example, it is "you" who must be beaten, served warm, etc.

One difference between middles and RCNOs is that the latter do not require an affecting verb.⁵

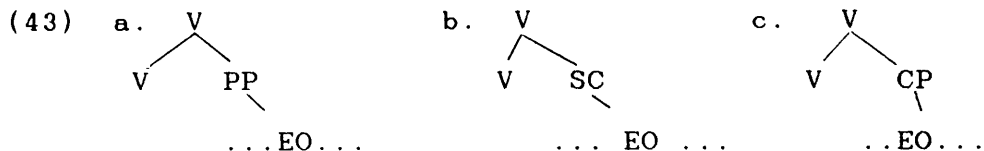
(42) Take three beaten eggs. Put in a hot oven for five minutes. Watch carefully

This is due to an aspect of imperatives which allows them (like passives) to assign their external theta role to INFL instead of to the subject position.

The data in (36-38) corresponding to (32b,d,h) can be accounted for, I think, by an appropriate for-

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mulation of the locality constraint on LF chain composition. This remains to be formulated, but intuitively, it appears that the relation between the non-thematic subject and the element to which it gives its reference via chain composition must not have more than a VP node intervening between them. Thus, PP objects, double objects, and ECM objects are ruled out. (We assume a small clause analysis here for double object constructions as in Kayne, 1984.)

5. Conclusion

In this paper it has been argued that middles and ergatives should receive different syntactic treatments, with middles being defined as constructions involving a particular modality in INFL which then allows the theme to appear as subject. An examination of similarities between tough and middle constructions suggested an analysis for middles involving non-thematic subjects, along the lines of Massam's (1985) analysis of tough constructions. In this view, a tough or modal element licences a mutual dependency relation between a non-thematic subject and another non-overt chain. Certain differences between tough and middle constructions, involving the presence of operators in the latter but not in the former led to the postulation for middles of a Case-marked empty object bound directly by a non-thematic element in subject position. This empty object is potentially problematic in that null reflexives are not generally held to exist. However, it was seen that this same type of empty object is independently required for an account of Recipe Context null object constructions. These constructions are shown to have properties strikingly similar to those of middle constructions, which supports our analysis of middles.

NOTES

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1. Works on middles, and on the lexicon in general to which I am especially indebted include Fellbaum and Zribi-Hertz (1988); Guerssel, Hale, Laughren, Levin, and White Eagle (1985); Guerssel (1986); Keyser and Roeper (1984); Hale & Kayser (1986, 1987a,b); Roberts (1985), Jaeggli (1986); Levin & Rappaport (1986a,b); and Baker, Johnson & Roberts (1986). My understanding and use of the ideas of these authors does not in all cases necessarily correspond to their own.

2. More detailed discussion on the notion of affectedness, can be found, for example, in Anderson (1979); Jaeggli (1986); and Tenny (1987).

3. For sharing their insights and intuitions in Haitian Creole, I am greatly indebted to Jean-Robert Cadely (UQAM), and Marie-Denise Sterlin (U. de Sherbrooke). My work on Haitian was undertaken in French, hence the English translations given here for Haitian sentences are in fact translations from the French. The original French translations can be found in Massam (1987a,b). The sentences appear in a rough phonemic transcription.

4. Works on these Romance structures include Authier (to appear); Bouchard (1987); Rizzi (1986); Roberge (1987); Williams (1986).

5. Another difference between middle constructions and RCNOCs is that the latter appear to more easily licence parasitic gaps. (?These chickens kill easily __ without tranquilizing __ first.//Cook __ well without burning __.) We put aside discussion of these sentences, pending further insight into parasitic gap constructions.

References

- Anderson, M. 1979. Noun Phrase Structure. Ph.D. dissertation, University of Connecticut.
- Authier, J.-M. to appear. "Arbitrary Null Objects and Unselective Binding" in O. Jaeggli & K. Safir, eds., The Null Subject Parameter. Reidel, Dordrecht.
- Baker, M., K. Johnson, and I. Roberts 1986. "Passive Arguments Raised" ms. McGill University, UCLA, and Université de Genève.
- Bouchard, D. 1987. "Null Objects and the Theory of Empty Categories", ms. University of Texas at Austin.

MIDDLES...

- Chomsky, N. 1981 Lectures on Government and Binding.
Foris, Dordrecht.
- 1982. Some Concepts and Consequences of the
Theory of Government and Binding. MIT Press,
Cambridge.
- 1986. Knowledge of Language: Its Nature, Origin
and Use. Praeger, New York.
- Fellbaum, C. & A. Zribi-Hertz, 1988. "The Middle
Construction in French and English", ms. Princeton
University. (published in French in J. Guéron, ed.,
Recherches Linguistiques à Vincennes.)
- Guerssel, M. 1986. "On Berber Verbs of Change: A Study
of Transitivity Alternations", Lexicon Project
Working Papers 9, MIT, Cambridge.
- Hale, K. and S.J. Keyser 1986. "Some Transitivity
Alternations in English", Lexicon Project Working
Papers 7, MIT.
- 1987. "A View from the Middle", Lexicon Project
Working Papers 10, MIT, Cambridge.
- 1987b. "Explaining and Constraining the English
Middle", ms. MIT, Cambridge.
- Jackendoff, R. 1972. Semantic Interpretation in
Generative Grammar. MIT Press, Cambridge.
- Jaeggli, O. 1986. "Passive", Linguistic Inquiry 17.4.
- Jake, J. and D. Odden, 1979. "Raising in Kipsigis",
Studies in the Linguistic Sciences 9.2.
- Kayne, R. 1984. Connectedness and Binary Branching.
Foris, Dordrecht.
- Keyser, S.J. and T. Roeper 1984. "On the Middle and
Ergative Constructions in English", Linguistic
Inquiry 15.3.
- Levin, B. and M. Rappaport 1986a. "The Formation of
Adjectival Passives", Linguistic Inquiry 17.4.
- 1986b. "What to do with Theta Roles", Lexicon
Project Working Papers 11, MIT.
- Massam, D., 1985. Case Theory and the Projection
Principle. Ph.D. dissertation, MIT, Cambridge.

MASSAM

- , 1987a. "Transitivity Alternations in Haitian Creole", ms. to appear in I. Hafk and L. Tuller, eds., Current Approaches to African Linguistics, Foris, Dordrecht.
- 1987b. "Predicate Argument Structure and Transitivity Alternations in Haitian Creole", ms. Haitian Creole Project, Université du Québec à Montréal/University of Toronto.
- Massam, D. and Y. Roberge, 1987. "Recipe Context Constructions in English", ms. University of Toronto.
- Rizzi, L. 1986. "Null Objects in Italian and the Theory of pro", Linguistic Inquiry 17.3.
- Roberge, Y. 1987. "The Recoverability of Null Objects", ms. to be presented at the Linguistic Symposium on Romance Languages 18, Urbana, Illinois.
- Roberts, I. 1985. The Representation of Implicit and de-thematized Subjects. Ph.D. dissertation, University of Southern California.
- Rothstein, S. 1983. The Syntactic Forms of Predication. Ph.D. dissertation, MIT, Cambridge.
- Seiter, W. 1980 Studies in Niuean Syntax. Garland, New York.
- Tenny, C. 1987 Grammaticalising Aspect and Affectedness. Ph.D. dissertation, MIT, Cambridge.
- Vinet, M.-T. 1986 "Implicit Arguments and Control in Middles and Passives", to appear in Advances in Romance Linguistics. Foris, Dordrecht.
- Williams, E. 1986. "The Italian Null Objects", ms. University of Massachusetts at Amherst.