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MODAL DA WITH AVERE*

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1. INTRODUCTION

This paper is a study of the syntax and semantics of the modal uses of the complimentizer *da* with *avere* 'have' in modern standard Italian. We have restricted our data to sentences using *avere* plus *da*, although many of the uses of *da* studied here are not exclusive to sentences with this verb. We have chosen this corpus because it offers us a wide range of possibilities for examining the behaviour of *da* and because sentences with modal *da* very frequently appear with *avere*.

In examining the modal uses of *da* with *avere*, it is necessary to distinguish other uses of *da*. Thus we allow ourselves to enter into discussions about purpose adverbials and infinitival relatives. These other structures are not of primary concern to us, however, and they are discussed only insofar as they shed light on the analysis of modal *da* sentences.

It must also be noticed that in this paper we have chosen to analyze primarily constructions which are part of the spoken language. Some of our examples require a special intonational contour and become grammatical and acceptable for the reader only if he is able to imagine the communicative situation in which such constructions could be used. If we had limited ourselves to

the written language in order to be able to provide easily avail-able sources for our corpus, we would have described only clichés and stereotyped constructions and we would have been unable to describe many aspects of present-day Italian.

Our analysis presents additional difficulties and complications be-cause: 1) the word order in Italian is quite free and tends to vary a great deal especially when intonational strategies and contours are used, 2) in Italian there is a large range of regional and idiolec-tical variation.

In section 2 we discuss the syntax of modal *da* sentences with *avere*. In section 3 we discuss their semantics.

2. THE SYNTAX OF MODAL *DA* SENTENCES WITH *AVERE*

In this section sentences like (1) and (2) are discussed.

(1)   Mario ha un libro da leggere
       'Mario has a book to read'

(2)   Mario ha da leggere un libro
       'Mario has to read a book'

Sentences such as (1) have a purpose reading and/or a relative reading. The relative reading, of course, often carries a modal sense, which is not to be confused with the reading we are calling our 'modal reading'. Sentences such as (2) with unmarked intona-tion carry a modal reading.

We will argue that each of the three readings in (1) and (2) derives from a distinct underlying structure. Many syntactic phenomena will be accounted for by the analysis here, including differences in the restrictions on coreference in the infinitival phrases and in the possibilities for fronting rules and for indefi-nite *si*, and the admissibility of perfective aspect in the infinitivals.

2.1 Underlying Sources.

Consider the following sentences, all of which exhibit the surface string *NP avere NP da* V$_{infinitive}$.

(3)   Quei poveri ragazzi avevano solo pane da mangiare.
       'Those poor boys had only bread to eat.'

(4)   Il mio amico ha una bellissima ragazza da presentarmi.
       'My friend has a very pretty girl to introduce to me'

(5)   La maestra ha dieci compiti da correggere.
       'The teacher has ten pieces of homework to correct.'

The most immediate reading for the *da* phrase is slightly different in each case. The presence of *solo* in (3) shows that the *da* phrase has been used as having a purpose adverbial reading. In fact (3) can be interpreted as similar to *per* phrase in 6.

(6)   I poveri ragazzi avevano solo pane per mangiare.
       'The poor boys had only bread to eat.'

In (4) the *da* phrase lends itself most readily to any of a number of typical infinitival relative readings.[1] To see these readings, it may help to note that (4) might be paraphrased by any of the sentences in (7).

(7)   Il mio amico ha una bellissima ragazza che può presen-tarmi / vuole presentarmi / deve presentarmi / mi pre-senterà.
       'My friend has a very pretty girl that he *can / wants to / must / will* introduce to me.'

(4) can have all four of the readings seen in (7) and others as well, given appropriate contexts. In particular, (4) also allows for a reading in which the subject of *avere* is not understood as core-ferential with the subject of the infinitive. While the context for such a reading is, perhaps, not easy to imagine for (8a), maybe it is easier to imagine for (8b) and (8c), among others.

(8) (a)   Ho dell'aglio da tagliare.
           'I have some garlic to cut.'

    (b)   Ho dell'aglio che *posso / devo* tagliare.
           'I have some garlic that I *can / must* cut.'

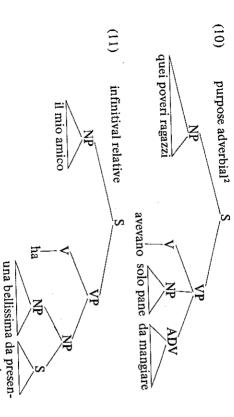   (c)   Ho dell'aglio che qualcuno *può / deve* tagliare.
           'I have some garlic that someone *can / must* cut.'

Finally, (5) lends itself to the obligation reading of an infiniti-val relative, due to the pragmatics. This reading is best paraphra-

sed by the deontic (that is 'root') sense of the modal *dovere* 'must' and is very similar to the reading of the modal *da* sentence in (9).

(9)   Ia maestra ha da correggere dieci compiti.
'The teacher has to correct ten pieces of homework.'

The close similarity in readings of an obligation relative (as in (5)) and a modal *da* sentences (as in (9)) tends to obfuscate the difference between the two structures. We will argue below, however, for three distinct structures underlying the purpose, infinitival relative, and modal *da* sentences. The three structures we propose are (similar to) the following:

(10)   purpose adverbial?

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              S
         NP       VP
quei poveri     V    NP    VP
ragazzi      avevano solo pane  ADV
                           da mangiare
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(11)   infinitival relative

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                S
          NP         VP
il mio amico    V        NP
              ha    NP        S
                 una bellissima  da presen-
                 ragazza         tarmi
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(12)   modal

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                S
          NP         VP
la maestra    V         VP
            ha    V          S?
                       VP
                    V      NP
              da correggere  dieci compiti
```

These underlying structures are not the deepest structures. In (10) the deepest structure would include a full sentence as the purpose adverbial; in (11) the deepest structure would include a full sentence as the relative clause; in (12) the verb *avere* would have a full sentence complement.[3] We have presented here only structures as deep as is necessary to demonstrate the relevant differences in constituency among the three structures. And we have avoided diagramming the deepest structures so as not to enter into details which are not germane to our present interest.

An immediate objection to our analysis might be the following: if (5) and (9) both have obligation readings, why aren't they derived from the same structural source? Let us examine the consequences of trying to derive (5) and (9) from a shared source.

First, if (12) were the underlying structure for (5), we would need a rule which rearranged the order of the final VNP string (*da correggere / dieci compiti*). But we would need to keep this rule from applying to (13) to yield (14).

(13)   Ho letto un romanzo
'I read a novel!'

(14)   * Ho un romanzo letto
'I have a book read'

That is, the permutation rule must be blokked from applying to past particles. Plus, since we need to generate underlying structures like (11) in order to account for the behavior of infinitival relatives in general (see footnote 1), we still need the three structures in (10)-(12), so not much is gained by deriving (5) from (12). We have than to conclude that this approach is not promising.

On the other hand, if a structure like (11) were to underlie both (5) and (9), this analysis would have appeal if it amounted to deriving all modal *da* readings from obligation infinitival relatives, thus eliminating the need to generate underlying structures like (12) at all. But then we would have to derive sentences like (15) from infinitival relatives,

(15)   Ho da riflettere su molti punti
'I have to think about many points'

But there is no obvious candidate, either explicit or 'understood'

in (15) which could serve as the head of the infinitival relative and this sentence does not have a relative reading. In particular, (15) contrasts with sentences like (16), which have two readings, a relative and a modal.

(16) Pietro ha da mangiare.
    a. 'Pietro has something to eat.' (relative)
    b. 'Pietro has to eat (something).' (modal)

Mangiare 'eat', seen in (16), is one of those verbs which can sometimes appear with a direct object and sometimes without, as in,

(17) Ieri ho mangiato (pesche) alle otto.
    'Yesterday I ate (peaches) at 8.'

Only verbs with the characteristic exemplified in (17) can appear in *da* phrases which can be interpreted in two ways, i.e. used in two different context with two different meanings. Thus (18) allows two different readings for each sentence but (19) (like (15)) does not.

(18) Pietro ha da *leggere / bere / studiare* (cf. Leggo (romanzi)./ Bevo (vino)./ .Studio (l'italiano).)
    a. 'Pietro has something to *read / drink / study*' (relative)
    b. 'Pietro has to *read / drink / study*' (something)' (modal) (cf. 'I read (novels). / I drink (wine). / I'm studying (Italian)')

(19) Pietro ha da *camminare / ridere / piangere*
    'Pietro has to *walk / laugh / cry*' (modal)

On the other hand (20a) has a relative reading, and a modal reading, which is elliptical. Likewise (20b) can only be read as elliptical.

(20) (a) Abbiamo da discutere
    'We have (something) to discuss'
    'We have to discuss (something)'
    (b) discutiamo
    'We are discussing (something)'

The above facts are explained if we maintain a structural diffe-

rence between relatives and modals. In particular, the modal readings of (15), (16), (18), (19) and (20a) (for those who get a modal reading for (20a)) would not have an NP immediately preceding the *da* phrase in either their syntactic or semantic analysis.

We conclude that (5) has an underlying structure like (11) (i.e. an infinitival relative) and (9) had an underlying structure like (12) (a modal) and that their similar readings are due to the fact that infinitival relatives can have obligation readings (as well as a range of other readings -- as discussed with respect to (4) above).

In the rest of section 2 we will offer you the data that led us to the three structures in (10)-(12), and in so doing, we will demonstrate the explanatory power of this analysis.

2.2. Generality

As we mentioned in the introduction, the uses of *da* phrases studied here are not limited to sentences involving the verb *avere*. Thus we see *da* phrases in (21) that lend themselves most readily to a purpose reading; *da* phrases in (22) that lend themselves most readily to an infinitival relative reading; and *da* phrases in (23) that perhaps demand a modal reading.[4],[5]

(21) Troverò un bel libro da leggere in aereo.
    'I'll find a good book to read in the airplane.'
    Ho comprato angurie da mangiare.
    'I bought watermelons to eat.'
    Ho portato dei fiori da mettere nel nuovo vaso.
    'I bought some flowers to put in the new vase.'

(22) Conosco un uomo da sposare.
    'I know a man to marry.'
    Mi piacciono le poesie da imparare a memoria.
    'I like poems to learn by heart.'
    Ho sognato una casa perfetta da costruire.
    'I dreamed about a perfect house to build.'

(23) A lui do da leggere questo libro e a te un altro
    'To him I'll give this book to read and to you an other one'

A te affido da guardare i bimbi ed a Paolo invece le galline
'I'll entrust you with watching the children and Paul, instead, the hens'

The focus of this paper is to offer an account of a cluster where *da* preceded by a verb and followed by an infinitive takes a modal reading. However, we will continue to use here examples with constructions having *avere* since they are very frequent and since they offer the widest range of semantic and syntactic possibilities to test our hypothesis on.

Examples like (23) are important to our analysis, however, for they shed light on the nature of the deepest structure and the syntactic history of modal *da* phrases. In (23) we understand the matrix datives to be identical to the subject of the infinitives. With *avere* plus modal *da* we understand the matrix subject to be identical to the subject of the infinitives, as in,

(24)　　Avrò da lavare la lavagna.
　　　　'I'll have to wash the blackboard.'

In Italian (as in other Romance languages and as in English) both subjects and objects may serve as controllers for Equi,[6] as seen in (25).

(25) (a)　subject: Ti prometto di farlo.
　　　　　'I promise you to do it.' (I do it.)

　　(b)　object: Ti permetto di farlo.
　　　　　'I permit you to do it.' (You do it)

Thus the modal *da* reading seems to be a case of Equi. And, as expected, a sentence with an active infinitival is not semantically equivalent to a sentence with a passive one: (26)-(28) all have very distinct readings.

(26)　　Ho da studiare (questo libro).
　　　　'I have to study (this book).'

(27)　　Ho da essere studiato (perché faccio parte di un esperimento all'ospedale).
　　　　'I have to be studied (because I'm part of an experiment at the hospital).'

(28)　　Questo libro ha da essere studiato.
　　　　'This book has to be studied.'

Sentences like (23) also point out that the modal reading of *da* in some way is dependent upon the linear arrangement of the matrix verb with regard to the infinitive.[7] Thus in our examples with *avere* we always found the uninterrupted string *avere da V_{infinitive}*. And in (23) we find modal *da* immediately following the higher verb even though the dative controls the *da* phrase here. In fact, we find the preferences given in (29).

(29)　　A Giorgio do da leggere questo libro (e non quell'altro)
　?*　　Do a Giorgio da leggere questo libro (e non quell'altro)
　　　　'I'll give George this book to read (and not the other one)'
　　　　A te affido da guardare i bimbi (ed a Paolo le galline)
　?*　　Affido a te da guardare i bimbi (ed a Paolo le galline)
　　　　'I'll entrust you with watching the children (and to Paolo the hens)'

2.3. Restrictions on coreference

In the vast majority of infinitival relatives employing *da* the missing object of the infinitive is understood as identical to the NP preceding the *da* phrase.

(30)　　Franca ha questo grano da macinare.
　　　　'Franca has this grain to grind.'

But sometimes other interpretations are possible.

First, for some speakers there are some infrequent but perfectly grammatical infinitival relatives with *da* in which the (missing) subject of the infinitive is understood as identical to the NP preceding the *da* phrase. In all such cases we know of, the main verb of the infinitival relative involves causation. Thus, while most of our informants reject or feel doubtful about (31) (hence the asterisks in parentheses), others accept these examples readily.

(31) (*)　Mario ha una moglie da far girare la testa.
　　　　'Mario has a wife to make heads turn.'

　(*)　Il gigante porta una barba da far paura.
　　　　'The giant has a beard that frightens people.'

(*)　Mario ha una moglie da educare bene i bambini.
'Mario has a wife to educate children well.'

(31)[8] does not, however, have a purpose reading for any of our informants. To see this, notice that if we front the *da* phrase, the result is ungrammatical. (This test for purpose adverbials is discussed in Section 2.4. below.)

(32)
* Da far girare la testa Mario ha una moglie.
* Da far paura il gigante porta una barba.
* Da educare i bambini Mario ha una moglie.

This fact is not surprising. For other infinitival purpose adverbials are likewise restricted to allowing only an interpretation of their subjects as identical to the subject of the higher verb. Thus in (33) the missing subject of the *per* phrase is interpreted as identical to *il gigante* and not to *una barba*

(33)
Il gigante porta una barba per far paura.
'The giant wears a beard in order to frighten people.'

Second, there are some infinitival relatives in which the relationship between the NP preceding the *da* phrase (the head of the relative) and any syntactic NP role in the infinitival phrase is not obvious but in which a semantic relationship is undeniable. Again most of our informants reject the sentences of (34).

(34) (*)
Carla ha un comportamento da essere ridicola.
'Carla has a behavior that makes her ridiculous.'
(literally: Carla has a behavior to be ridiculous.)

(*)
Hai una faccia da essere preso a schiaffi.
'You have a face to get you slapped.'
(literally: 'You have a face to be slapped (you get slapped, not your face)'.)

Once more a purpose interpretation is missing from these sentences. And correlated with that fact is the ungrammaticality of these sentences for all speakers if the *da* phrase is fronted. (Here again we are employing the syntactic test for purpose adverbials discussed in Section 2.4. below).

(35)
* Da essere ridicola Carla ha un comportamento.
* Da essere preso a schiaffi hai una faccia.

Thus the (missing) object of the infinitive must be understood as identical to the preceding NP in a purpose *da* phrase. And the NP preceding a *da* infinitival relative can be understood as identical to the infinitive's object or, for some speakers, subject, and, again only for some speakers, can have a general semantic relationship to that clause (as exemplified above in (34)). In infinitival relatives, furthermore, we do not readily find examples in which the NP preceding the *da* phrase is understood as identical to the subject of the passive infinitival or to the subject of a 'tough movement' infinitival. Thus (36) offers typical examples.

(36)
* Mario ha un libro da essere letto.
'Mario has a book to be read '
* Mario ha un libro da essere difficile da leggere.
'Mario has a book to be hard to read.'

This restriction about subjects is not limited to *avere* sentences, but to all infinitival relatives employing *da*.

(37)
* Cercherò un libro da essere letto
'I'll look for a book to be read'

(38)
* Cercherò un uomo adatto da essere eletto
'I'll look for a suitable man to be elected'.

Modal *da* sentences, on the other hand, exhibit only one relevant identity (coreferential) restriction with regard to the syntax of the infinitival in its relationship to the higher clause. In the modal constructions, the (missing) subject of the *da* phrase must be understood as identical to some NP in the higher clause. When the higher verb is *dare* 'give' or *affidare* 'entrust', that NP is a matrix dative (if expressed, as was demonstrated with examples (23) and (29) above). When the higher verb is *avere*, that NP is the matrix subject. With this one coreferential restriction, we see that we can get a full range of infinitival types.

(39)
Michele ha da lavare le posate
partire sabato
parlare con Mila

'Michael has to { wash the silverware / leave saturday / speak with Mila }'

And we find that a subject of a passive infinitive or of a 'tough movement' infinitive can be understood as identical with the matrix subject. Thus in (40) we have a passive infinitive and in (41) we have a Tough Movement infinitive. (Note that some of our informants reject all modal *da* phrases which have undergone Tough Movement, including (41). We do not know why).

(40)   Questo grano ha da essere macinato
        'This grain has to be ground'

(41) (*) Domani tu devi confondere tutti. Anzi, hai da essere impossibile da capire.
        'Tomorrow you must confuse everyone. Even better, you must be impossible to understand.'

And some speakers found (42) acceptable, although others rejected it.

(42) (*) Tu hai da sembrare come se (tu) capissi.
        'You have to seem as if you understood.'

It is certainly possible that the infinitival in (42) has undergone a rule which copies the lower subject into the subject position of *sembrare* 'seem', thus deriving (44) from (43).⁹

(43)   Sembra come se tu capissi.
        'It seems as if you understood.'

(44)   Tu sembri come se (tu) capissi.
        'You seem as if you understood.'

We did not find any clear cases of an infinitive in which Raising into Subject Position had applied. But it may well be that these examples are lacking for semantic reasons rather than syntactic ones, given that (46) with *dovere* 'must' is as bad as (45) with *avere* plus *da*.

(45)   * Tu hai da sembrare lavorare.
        'You have to seem to be working.'

(46)   * Tu devi sembrare lavorare.
        'You must seem to be working.'

But we did find some cases in which one might argue for Raising into Subject Position followed by a rule deleting *essere* 'be'.¹⁰

(47)   Tu hai da sembrare scemo.
        'You have to seem stupid.'

(48)   Tu devi sembrare scemo.
        'You must seem stupid.'

Notice that such cases allow embedding under *dovere* 'must' as well as under *avere* plus *da*.

In sum, then, the only identity restriction on the modal *da* phrase is that its (missing) subject be understood as identical to an NP in the matrix clause.

The differences in these restrictions on the different types of *da* phrases account for contrasts such as the following, which would be baffling without an analysis that distinguished between the three readings syntactically.

(49)   Ha questo libro da leggere.
        'He has this book to read.'

(50)   Questo libro, ha da leggere (e non l'Ulisse di Joyce)
        'This book he has to read / for reading (and not *Ulisses* by Joyce)'

(51)   * Ha questo libro da essere letto.
        'He has this book to be read.'

(52)   Questo libro ha da essere letto.
        'This book has to be read.'

2.4. *Fronting*

An NP within a VP can be fronted in Italian (for various purposes, such as emphasis or contrast), as in,

(53) (a) Voglio una caramella ora.
        Una caramella voglio ora.
        'I want a candy now.'

(b) Voglio mangiare una caramella ora.
        Una caramella voglio mangiare ora.
        'I want to eat a candy now.'

If the NP is the head of a relative clause, the head can be fronted

without its relative clause,[11] but the relative clause cannot be fronted without its head. Of course the entire complex NP (head plus relative clause) can be fronted.

(54) (a) Conosco una ragazza che può aiutarmi.
  (b) Una ragazza che può aiutarmi conosco.
  (c) Una ragazza conosco che può aiutarmi (e non un ragazzo).
  (d) * Che può aiutarmi conosco una ragazza.
  'I know a girl who can help me (and not a boy).'

(In (54b)) *aiutarmi* receives the highest intonation peak of the sentence). This is true of infinitival relatives as well as full relatives.

(55) (a) Cerco una ragazza con cui ballare.
  (b) Una ragazza con cui ballare cerco.
  (c) Una ragazza cerco con cui ballare (e non una signora anziana).
  (d) * Con cui ballare cerco una ragazza.
  'I'm looking for a girl to dance with (and not an older married lady).'

Likewise an entire infinitival VP, or, perhaps, an unbranching S, can be fronted.

(56)   Voglio mangiare una caramella.
    Mangiare una caramella voglio.
    'I want to eat a candy.'

Now for many speakers a V cannot be fronted leaving behind other elements of its VP.

(57) ?* Mangiare voglio una caramella (non leccarla soltanto).
    'Eat I want to a candy (and not just lick it).'

On the other hand, an element that is not part of the VP cannot be fronted with the VP.

(58)   Voglio possedere una macchina americana e Gianni me la comprerà.
    'I want to own an American car and Gianni will buy it for me.'
    Possedere una macchina americana voglio e Gianni me

la comprerà.
  * Possedere una macchina americana e Gianni me la comprerà voglio.

Turning now to our sentences with *da* and *avere*, we predict that if *NP da V*$_{\text{infinitive}}$ is fronted, we will get an infinitival relative reading. The prediction is borne out. Thus sentences like (59), while they are highly unlikely, are acceptable to all our informants but a few and they have infinitival relative readings.

(59)   Un libro da leggere Mario ha.
    'A book to read Mario has.'

A purpose reading is not found in (59). This fact follows nicely from our analysis of purpose *da* phrases as adverbials. An adverbial cannot be fronted with the NP because it does not form a constituent with the NP.

However, as G. Lepschy has pointed out to us, with stress on *libro*, (59) can have an obligation reading. We claim, then, that this obligation reading is the result of an obligation infinitival relative and not of a modal *da* phrase. Note that if one were to try to derive (59) from a modal *da* phrase, as in (60),

(60)   Mario ha da leggere un libro.
    'Mario has to read a book.'

both fronting and permutation of the elements in the *da* phrase would be involved. If we tried to front the entire *da* phrase as a unit and then permute, the permutation involved would be of the type that we have already argued (with respect to (14) above) cannot exist. If, instead, we tried to front *da leggere* and *un libro* separately, we would have to front *un libro* first since *da leggere* could not front alone leaving behind *un libro* (for the same reason that (57) is ungrammatical). But if *un libro* fronts first, then there is no independently motivated rule which could place *da leggere* to the right of *un libro* in (59). Thus we see no plausible derivation of (59) from (60).

If we front *da V*$_{\text{infinitive}}$ and leave behind *NP avere NP* ∅, we should get only a purpose adverbial reading. Again, the predic-tion is correct.

(61)   Da leggere, Mario ha un libro.
    'For reading, Mario has a book.'

An infinitival relative reading is not found here. This fact follows from the restriction that the S of a complex NP cannot be fronted without its head (as in (54d) and (55d)). Likewise, a modal reading is excluded. This fact follows from the restriction that a V cannot be fronted leaving behind other elements of the VP (as in (57)). (Of course, those speakers who accept (57) should also allow a modal reading for (61).)

If we front NP and leave behind *NP avere* ∅ *da V*$_{infinitive}$ we should get a modal reading, a purpose reading, and an infinitival relative reading. As expected, that is exactly what we get. (62), which all our informants but a few accepted, has all three readings.

(62)   Un libro Mario ha da leggere
       'A book Mario has to read / for reading'

To see the infinitival relative reading and the modal reading in (62), it is perhaps helpful to add the contrastive phrase *e non un giornale* 'and not a comic strip'.

And finally, if we front *da V*$_{infinitive}$ *(NP)* and leave behind *NP avere* ∅, we should get a modal reading. Once more, the result, while highly unlikely, is grammatical and has the predicted reading.

(63)   Da leggere una lettera Mario ha non da scrivere
       'To read a letter Mario must not write one'

An infinitival relative reading is excluded since we need the order *NP da V*$_{infinitive}$ to get these readings. A purpose reading, however, is possible for (63) if there is falling intonation on *leggere*, a slight pause after *leggere*, and the highest intonation peak on *lettera*. In such a case the NP object of *avere* is fronted (as in (53)) followed by fronting of the purpose adverbial (as in (61) and (64), where we note that one of our informants rejected (64)).

(64)   Per mangiare stasera, voglio comprare una bistecca.
       'For eating tonight, I want to buy a steak.'

Fronting of both an NP and an adverbial are, perhaps, unusual in one sentence, but they do occur, and independently of sentences involving *da* phrases.

(65)   Per mangiare stasera, un bistecca voglio comprare.
       'For eating tonight, a steak I want to buy.'

The intonation contour in (65) would be similar to the one necessary for the purpose adverbial reading of (63), i.e. with the intonation peak on 'bistecca'. But for many speakers (65) would not be acceptable even with this intonation contour.

We have seen in this section that the rather diverse results of fronting in sentences with *da* phrases follow in a simple fashion from our analysis.

2.5 Indefinite *si*.

In section 2.3 we demonstrated the identity restriction on modal *da* phrases with respect to the *avere* clause, that the (missing) derived subject of the *da* phrase be understood as identical to the subject of *avere*. We also saw in section 2.3 that the subject of a *da* purpose adverbial must be understood as identical to the higher verb's subject (consistent with restrictions on other purpose adverbials, cf. (33)). Infinitival relatives do not share such a restriction, but allow interpretations of the subject of the *da* phrase in which that subject is not coreferential with any element of the higher clause (as in (8) above). Now we will use these facts below.

Italian (along with other Romance languages) has a much studied construction in which a clitic (homophonous with the third person reflexive clitic) can serve as an indefinite subject:

(66)   Si deve risolverlo prima di andare via.
       'One better solve it before leaving.'
       Si è impegnati qua.
       'People are involved here.'
       Si comincia a capire, finalmente.
       'One is beginning to understand, finally.'

Given our analysis of *da* phrases with *avere*, then, we would predict that indefinite *si* cannot appear in a modal or purpose *da* phrase but can appear in an infinitival relative *da* phrase. Such is the case.

(67) (a)   Ho solo due piatti da farsi. (cf. *Da farsi ho solo due
           piatti)
           'I have only two dishes to be made.'
     (b) * Ho da farsi dei piatti.
           'I have to make some dishes.'

(67a) has only an infinitival relative reading, and not a purpose reading. Accordingly the *da* phrase cannot be fronted. (67b) is excluded because the subject of *farsi* must be understood as identical to the subject of *avere*. But the subject of *farsi* is indefinite *si*, while the subject of *avere* is first person singular.

Note that a sentence such as (68) does not have an indefinite *si* reading, but only a reflexive reading.

(68)   Enzo ha da mangiarsi il panino.
        'Enzo has to eat up the sandwich.'

This use of the reflexive clitic is also seen in (69), where no *da* phrase is involved. (This use is often called the 'ethical' dative).

(69)   Enzo si mangia il panino.
        'Enzo is eating up the sandwich.'

And, as expected, if the subject of *avere* is not a third person, *si* cannot appear but the appropriate reflexive clitic can.

(70)   * Ho da mangiarsi il panino.
        Ho da mangiarmi il panino.
        'I have to eat up the sandwich.'

Without our analysis, the difference between (67a) and (67b) would be hard to explain.

2.6 Perfective

Infinitival purpose adverbials in general disallow perfective aspect. Thus (71) has a purpose reading, but (72) with the perfective aspect, has only a 'because' reading.

(71)   Ho ricevuto una matita per scrivere la lettera.
        'I received a pencil for writing the letter (with).'

(72)   Ho ricevuto una matita per aver scritto la lettera.
        'I received a pencil because I wrote the letter.'

Likewise, infinitival relatives in general disallow perfective aspect.

(73)   Conosco un uomo presso cui comprare i biglietti.
        'I know a man from whom to buy tickets.'
    * Conoscevo un uomo presso cui aver comprato i

biglietti.
    'I knew a man from whom to have bought tickets.'

Modals in general permit perfective aspect.

(74)   Devo aver capito per domani.
        'I must have understood by tomorrow.'

Turning to our *da* phrases with *avere*, we would expect purpose and infinitival relative readings to disallow perfective aspect, but the modal reading to allow it. The facts are as expected.

(75)   * Avevo solo libri da aver letto in aereo.
        'I had only books to have read in the plane.'
        Ho solo libri da leggere in aereo. (cf. Da leggere in aereo ho solo libri).
        'I have only books for reading in the plane.'

(76)   * Pinco ha un articolo da tradurre entro domenica
        Pinco ha un articolo da tradurre entro domenica
        'Pinco has an article to *have translated / translate* by Sunday.'

(77)   Pinco ha da aver tradotto un articolo entro domenica
        Pinco ha da tradurre un articolo entro domenica.
        'Pinco has to have translated / translate an article by Sunday.'

Once more it is difficult to imagine an explanation for facts such as those in (75)-(77) without an analysis which differentiates between the three types of *da* phrases.

3. THE SEMANTICS OF *AVERE* PLUS MODAL *DA*

In the examples given thus far the modal structure (seen in (12)) always yielded a reading of obligation. Most sentences involving the modals *dovere* 'must' and *potere* 'can', however, allow two readings: a deontic (otherwise known as 'root') reading or an epistemic reading.

(78)   Deve portare quelle scarpe ogni giorno.
        (a) perché il medico l'ha ordinato.

(b) Se no, perché sono così rotte?
'He must wear those shoes every day.'
(a) because the doctor ordered it.'
(b) otherwise why are they so worn out?'

In (78) with the continuation (a) we have an obligation (ie., deontic) reading. In (78) with the continuation (b) we have a probability (ie., epistemic) reading.

The *avere da* modal sentences, instead, usually allow only a deontic reading of obligation. Thus most speakers reject (79b).

(79)
Ha da portare quelle scarpe ogni giorno.
(a) perché il medico l'ha ordinato.
(b) *Se no, perché sono così rotte?
'He has to wear those shoes every day.
(a) because the doctor ordered it.'
(b) otherwise why are they so worn out?'

As far as we know, only when the infinitive is in a composite tense can we get an epistemic reading for an *avere da* modal sentence, and even then some speakers reject (80)-(82).

(80) (??) Maria ha da aver affittato la casa, se no ci sarebbe l'annuncio sul giornale.
'Maria has to have rented the house, otherwise there would have been a notice in the newspaper.'

(81) (??) Questo pacco ha da essere stato inviato ieri, altrimenti non sarebbe arrivato oggi.
'This package has to have been mailed yesterday, otherwise it wouldn't have arrived today.'

(82) (*) La mamma al momento in cui sarebbe stata dimessa dall'ospedale aveva da aver superato ogni esame clinico.
'The mother at the time that she would have been released from the hospital had to have passed every clinical test.'

Note that sentences such as (83) are not counterexamples to this claim.

(83)
Maria avrà da affittare la casa.
'Maria will probably have to rent the house.'

In (83) we do get probability reading and we do not have a com-

posite tense in the infinitival clause. However, as Lo Cascio (1975 and 1976) has shown, the time structure of a sentence can determine an epistemic or deontic reading. Thus in (83) the future tense on *avere* is responsible for the probability (ie., epistemic) reading -- while the *da* phrase itself still carries only an obligation (ie., deontic) reading. We can see this same factor in sentences not involving *da* phrases, such as (84), where the future tense in Italian gives the same kind of epistemic reading that the modal *will* does in the English gloss.

(84)
Dario sarà in questo momento alla porta.
'Dario will be at this moment at the door.'

While we do not know why the epistemic reading is excluded (although according to Lepschy (79) and (78) allow both readings) in (79) but permitted in (78), we are not surprised to find that composite tenses allow the epistemic reading (as in (80)-(82)).

As Lo Cascio (1975 and 1976) has demonstrated, the relationship of points along a time axis is significant to the determination of the type of reading assigned to a modal sentence.

Starting from Reichenbach's (1966) three points (the speech point (S), the reference point (R_1), and the time of the event point (E)) we would add a fourth point (the condition point (R_2)) and agree with Lo Cascio (1975) that we can get an epistemic reading for modal sentences if the time in which the event of the infinitive verb takes place precedes the time point in which the modal operator is placed *or* if the time point at which the event in the scope of the modal operator takes place (or must be true) precedes the time point in which this condition (via the modal operator) is stated. The verification of this claim involves following a complex line of reasoning with the support of copious examples and we cannot enter into such a demonstration here. We refer the reader to Lo Cascio (1975 and 1976) for a further discussion on the relationship between time and modalities. Here we will merely exemplify the principle. Thus consider (85) and (86) with the time axes for each.

(85)
Paolo doveva essere già partito quando io sono arrivato.
'Paolo must have already left when I arrived.'

E_1 = Paolo parte
'Paolo leaves'
R_1 = modality

E_2 = io arrivo R_2 = quando (E_2)
    'I arrive'   'when (E_2)'

S = speech point

(86) Paolo aveva da essere già partito quando io sono arrivato.
    'Paolo had to have already left then I arrived.'

$$\ldots E_1 \ldots \overset{E_2}{\underset{R_1}{R_2^2}} \ldots S \ldots$$

In both examples the time point in which the event (E_1^1) within the scope of the modal operator must be true precedes the time point in which the condition (E_2) is stated. Thus both sentences should allow an epistemic reading, as, in fact, they do.

Composite tenses tend in general to favor epistemic readings in modal sentences. This may perhaps be attributed to the fact that the conditions in the time axis stated above (almost always) hold in such sentences. Why simple tenses disallow epistemic readings with avere da (regardless of the conditions found on the time axis of any given sentence) still remains a big question, however. And we would like to add that there are also many composite tense sentences with avere da that resist an epistemic reading. Thus if Piero walks into the hall and sees that his wife's coat is gone, he can express his conclusion that she has probably left with (87), but all our informants except one agree that he cannot use (88) in this context.

(87) Deve essere già uscita.
    'She must have already left.'

(88) Ha da essere già uscita.
    'She has to have already left.'

(Note that (88) would be fine in American English in this context.) But we cannot conclude that (88) totally excludes an

epistemic reading in all contexts. Consider the following situation. Piero telephones his wife but there is no answer. He concludes that she has probably left already. All speakers agree that Piero can express his conclusion with (87). But several speakers accept also (88) while others find it marginal and others again reject it in this context.

In conclusion, by far the most common use of the avere da modal sentences is to express a deontic sense. We have attempted to give some explanation for the infrequent cases in which this modal is used to express an epistemic sense. And we have brought out many questions and problems for any analysis of this construction.

4. CONCLUSION

We have distinguished in this paper three uses of the complementizer da in Italian: the adverbial use, the infinitival use, and the modal use. The distinctions between all the sentence types examined here are to be made in both their syntactic and semantic descriptions. This study suggests that the nature of the distinction between deontic and epistemic senses, which has been initially studied by many with fruitful results, still needs further examination. This study also is incomplete in many ways. In particular, it calls for a complementary study of modal da sentences with essere 'be', which have been initially discussed in Fava (1977).

As a final word, we hope to have demonstrated the merit of linguistic analysis of items as seemingly insignificant as da, which can shed light on basic questions about linguistic analysis.

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FOOTNOTES

1   In the discussion below we will assume much of Napoli's (1976) analysis of infinitival relatives without further mention of that work. The reader is referred to that work for arguments in favor of the constituency shown in (11) below in the text.

2   While we generate the adverbial off the VP here instead of off the S, it

makes no difference whatsoever to our exposition if it should be shown that these are really adverbials off the S. For a discussion of various tests for VP versus S-hood in English with adverbials, see Reinhart (1976).

3 We have assumed here an Equi rather than a Raising analysis for the modal *da* sentences. This point is discussed in section 2.2 below with regard to sentences like those in (23). We need not determine for our purposes whether Equi is transformational or interpretive. The point in (12) is that the subject of the infinitive must be interpreted as identical to an NP in the matrix. This situation contrasts with the infinitival relatives, shown in (11), where the subject of the infinitive need not be understood as identical to any NP in the matrix.

4 One caveat is in order here. While we have chosen the particular sentences in (21) - (23) because their pragmatics help to distinguish between the three readings, one cannot claim that the three readings here are due solely to pragmatic inferences. Instead, the syntactic tests given in the sections which follow can be applied to these sentences to demonstrate that each of the three readings is paired with a particular syntactic behavior, and with precisely that syntactic behavior that we have correlated with the syntactic structure at issue. For example, only in (21) can the *da* phrase be fronted. This fact follows if this *da* phrase is a purpose adverbial (see Section 2.4 below). Likewise, only in sentences like those in (23) is indefinite *si* impossible on the infinitive. Again, this fact follows if this is a modal *da* phrase (see Section 2.5 below).

5 Some of our informants reject (23). For them modal *da* phrases can be controlled only by the higher subject and never by a dative.

6 We do not enter into a discussion of whether Equi is an interpretive or a deletion rule or whether there are two kinds of Equi rules (as argued in Chomsky (1976)), since such a determination will not bear on the issues handled in this paper. Nor do we enter into the question of how it is determined which NP (subject or object) will be the controller. We refer the reader to Fauconnier (1976) for a particularly innovative and insightful proposal regarding the controller.

7 We are (mildly) suggesting the possible relevance of the correlation between the surface uninterrupted string *avere da V* infinitive and the semantics of a sentence containing such a string. It may be that the rules involved in the derivation of these modal sentences are conspiring to make the surface structure a kind of icon of the semantics. We leave this question open.

8 Some speakers find examples with *fare* plus an infinitive better than other examples. For such speakers, the first two sentences of (31) are better than the third sentence. Perhaps an explanation for this preference would lie in a lexical analysis of the verbs involved, where *fare* plus an infinitive may form a kind of 'unit'. We leave this suggestion to the reader for further research.

9 Such a rule, if its existence can be established, might be similar to that proposed for English by Rogers (1971) to derive ii from i.

(i)   It looks like there's a problem here.
(ii)   There looks like there's a problem here.

Note that those speakers who reject (44) (as one of our informants did), will also reject (42).

10 The semantic differences between sentences with and without *to be* in English are nicely discussed in Borkin (1973). Thus if such a deletion rule exists in Italian, it is not surprising that the semantics of a clause without *essere* 'be' would be different enough to allow it to appear in different contexts (ie., embeddings) from those of the same clause with *essere*.
Also, we note that one of our informants rejected (47). This is the same informant who rejected (42) - (44).

11 One of our informants rejected both (54c) and (55c).

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RIASSUNTO

In questo articolo si tenta di spiegare una serie di fenomeni semantici attraverso l'analisi del comportamento sintattico delle costruzioni prese in considerazione.

Oggetto di analisi sono le costruzioni introdotte da *da* e in particolare quelle rette dal verbo *avere*. Si sostiene che tra le costruzioni infinitive rette dall'insieme sintagmatico *avere da* si possono individuare almeno tre tipi di strutture: una di tipo modale, una di tipo relativo, una di tipo avverbiale.

Le costruzioni del tipo: *NP avere da V'infinito NP* avrebbero sempre valore modale. Le costruzioni invece del tipo: *NP avere NP da V'infinito* possono avere valore relativo o (alcune volte) avverbiale accompagnato o no da valore modale. Cf.

(1) Mario ha da leggere un libro
(2) Mario ha da mangiare il pane che ti do
(3) Ho da masticare una gomma
e
(4) Mario ha un libro da leggere
(5) Non ho pane da mangiare
(6) Ho una gomma da masticare

Nelle costruzioni del secondo tipo può non esserci coreferenzialità tra il soggetto di *avere* e il soggetto logico del verbo all'infinito. Nelle forme prettamente modali il soggetto logico dell'infinito deve essere coreferenziale con quello di *avere*.

A dimostrazione di ciò si osserva che per esempio nel primo caso vengono escluse le costruzioni con il *si* impersonale nella frase subordinata. Cf.

(7) ?Ho da dividersi un panino
(8) Ho un panino da dividersi

L'applicazione di certe regole trasformazionali, come la 'dislocazione a sinistra' e il 'tough movement' serve a portare prove per la tesi sostenuta.

Si costata infine che il valore modale che si riscontra in tali costruzioni è generalmente di tipo deontico (obbligo) ma non è escluso che si possa riscontrare anche il valore epistemico (probabilità). A tale proposito si tenta di dimostrare che l'epistemicità o deonticità sono legate anche a relazioni di tipo temporale-