1-Ascension vs. Causative Clause Union in Modern Hebrew

Leone Sveinson
Department of Linguistics
University of Calgary

1.0 Introduction

An assumption has been made that there are two types of causative clause union in Modern Hebrew (Cole 1976). Subsequent to reviewing Cole's work an interesting imbroglio transpired when it came to light that perhaps his premise is wrong. Perhaps the structures that he labels as having undergone clause union do not involve union at all. In this paper we shall examine the possibility that this observation may be true. The framework to be employed will be that of Relational Grammar (Perlmutter and Postal 1974, 1983). The following formalisms are important to the current discussion:

(1)

Terms:	Subject	=	1
	Direct Object	=	2
	Indirect Object	=	3
Nonterms:	Chomeur	=	CHO

(2) Chomeur Condition: If a nominal A bears a given term relation in stratum-I, and if a nominal B bears the same relation in stratum-I+1, then A bears the chomeur relation in stratum-I+1.

This condition explains that chomeurs are basically created by displacement of one grammatical relation by another. Typically, chomeurs are created in 2-1 advancement (passivization) when the advancing 2 assumes a 1 status and consequently creates a 1-CHO. Chomeurs are also created in 1-ascension when the embedded 1 ascends to a 2 status in the matrix clause and places the remainder of the embedded clause en chomage.

(3) Relational Succession Law: An ascended nominal must take on the grammatical relation of its host.

This law refers to the downstairs clause as the 'host' of the ascension. If the host bears a 2 relation, then the ascendee from the downstairs clause will bear a 2 relation in the upstairs clause. If the host bears a 1 relation, then the ascendee from the downstairs clause will bear a 1 relation in the upstairs clause. One consequence of this type of ascension is that the host is

placed en chomage according to the Chomeur Condition.

Given the possibility that Cole's premise may be flawed, it seems reasonable to ask: If the structures do not represent clause union, what do they represent? What particular process can accurately account for the data? The theory being posited here is that, instead of clause union, what we are looking at is the phenomenon of 1-ascension.

To begin the investigation we need to first look at the differences between causative clause union and 1-ascension, and see which of these the Hebrew data concurs with. Then, since we are claiming that 1-ascension accounts for the data, we will have to look at several tests which support this notion over that of clause union.

To become familiar with the contrast between union and ascension it is helpful to consider the findings of Don Frantz (1981) which expose a similar phenomenon in French. He explains that French has two types of causative structures but only one of these involves union. The following examples are taken from his article to provide clear evidence of the point he makes. His claim is that in the following sentences, (4) and (6) are the nonunion causatives while (5) and (7) are the actual union structures.

(4) Je laisserai Jean boire.
I let:fut J. drink

(5) Je laisserai boire Jean
I let:fut drink J.

(6) Je laisserai Jean boire le vin.
I let:fut J. drink the wine

(7) Je laisserai boire le vin à Jean.
I let:fut drink the wine to J.

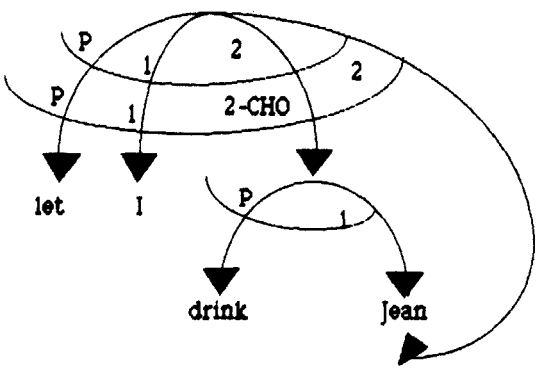
Frantz makes the observation that in (4) *Jean* is a final-2 as a result of 1-ascension (subject to object raising), where the downstairs final-1 ascends to become the 2 in the matrix clause. Note that it is positioned to the right of the predicate. In (5), however, *Jean* is still a final-2 but is the result of clause union. In this latter case note the positioning of *boire*. Instead of *Jean* being placed to the right of the predicate, *boire* assumes this position.

Frantz explains this by saying that after union, the original downstairs predicate (now a predicate emeritus, according to Frantz), is more closely linked with the matrix predicate. It is no longer sitting in the downstairs clause as in ascension, since one of the consequences of union is that the two original clauses collapse. Because of this, a predicate 'complex' is formed which consists of the matrix predicate and the predicate emeritus. What we are trying to establish here is that after union the two predicates are somehow linked, and superficially this is borne out by their adjacency in the sentence.

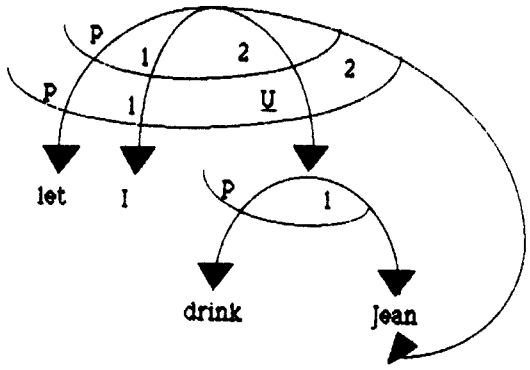
In addition to this, sentences (5) and (7) also demonstrate a significant difference. In (6) *boire* is an infinitive and *Jean* is a final-2 (similar to (4)). In (7), however, after clause union *Jean* is a final-3 and is therefore marked with the preposition *à*, which is used elsewhere in the language to mark nominals bearing this grammatical relation.

For clarity, the relational networks for (4) to (7) are presented below in (8) to (11).

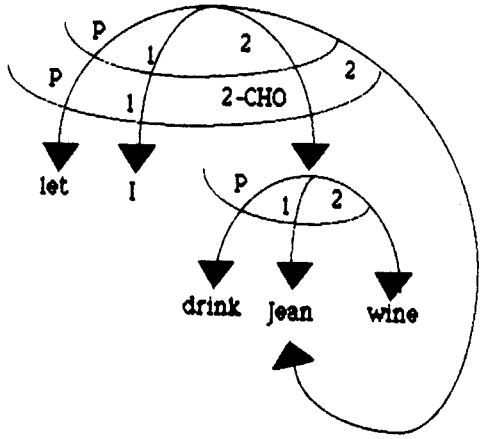
(8) Ascension



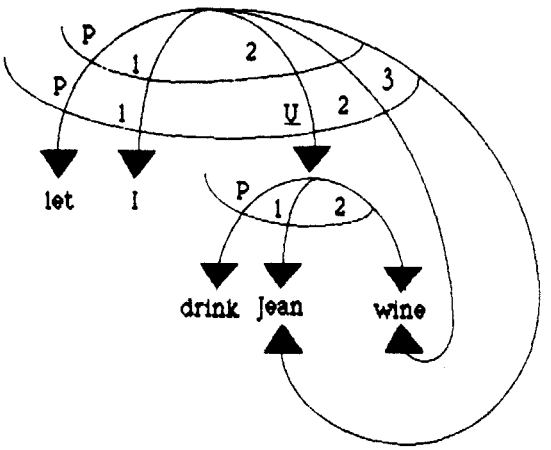
(9) Union



(10) Ascension



(11) Union



Further to his argument, Frantz demonstrates that, since in the case of ascension, two independent predicates remain, both can be negated. In the union structures, however, any attempt to negate only the predicate emeritus will yield ungrammatical results.

2.0 Word Order & Case-marking

With this introductory information as a point of departure, let us examine the data from Hebrew and see how it responds to this type of analysis.

Consider the following sentences:

(12) Mary natna et hashever le John.
M. gave ACC the book to J.
'Mary gave the book to John.'

(13) Ilana amra she Mary natna et hashever le John.
I. said that M. gave ACC the book to J.
'Ilana said that Mary gave the book to John.'

(14) Ilana hichrach et Mary latet et hashever le John.
I. caused ACC M. to give ACC the book to J.
'Ilana made Mary give the book to John.'

Sentence (12) is a simple monoclausal structure which demonstrates the case marking and ordering of elements. Sentence (13) exemplifies a biclausal structure, in which *she* indicates the boundary between the matrix and embedded clause. Notice that there is no overt case marking on *Mary*. This contrasts with *Mary* bearing accusative case marking in (14) which is the causative construction.

Upon examining (14) we note several salient characteristics which Frantz claims are indicative of nonunion causatives. In particular, the downstairs predicate is not immediately adjacent to the main causative predicate, suggesting that they are not linked together to form the complex that is typical of union. Secondly, as we have mentioned, the original embedded 1 (Mary), bears an accusative marker which suggests that it has undergone 1-ascension (subject to object raising).

3.0 Negation

In addition, if we attempt to negate the predicates in (14) the following sentence results.

(15) Ilana lo hichrach et Mary lo latet et hashever le John.
M. not caused ACC M. not to give ACC the book to J.
'Ilana did not make Mary not give the book to John.'

It appears, initially at least, that what Cole (1976) has described as union is 1-ascension. To substantiate this, however, we are going to have to put our theory to further tests.

4.0 Mono- vs. Biclausal

It is understood that in causative clause union two clauses collapse to form a single clause, and the elements of the original complement clause take on grammatical relations in the matrix clause. If union has occurred in the structure that we are examining, we expect then that we are dealing with only one clause.

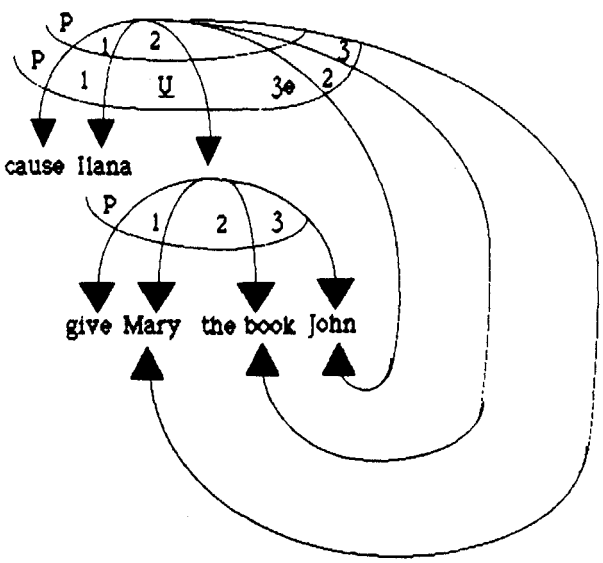
In addition, Perlmutter and Postal (1974) claim that the changes in grammatical relations in causative clause union can be accounted for by assuming the following characteristics of clause union:

(16)

a) Downstairs (embedded/complement) final-2 of a transitive clause becomes an upstairs 2 in the union stratum.
b) Downstairs final-1 of a transitive clause becomes an upstairs 3 in the union stratum.
c) Downstairs final-1 of an intransitive clause becomes an upstairs 2 in the union stratum.

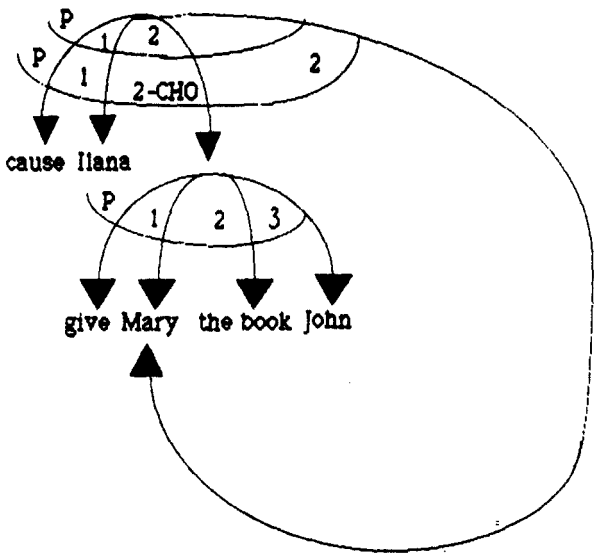
Given these notions, if we were to assume that in (14) union had occurred, (17) provides the resulting relational network.

(17)



If however, 1-ascension has occurred, then in addition to the case marking and positioning of elements that we have already noted, we should also find evidence of an internal clause boundary. Were we to assume that ascension had occurred, the relational network would be as follows in (18):

(18)



Because the downstairs 1 has ascended as a 2, the initial 2 must be put *en chomage*. In this particular case we know that the complement 1 ascends as a 2 as a result of the Relational Succession Law.

We are claiming that 1-ascension has occurred and not union. To this point we have noted the characteristics of each, and determined that one of the most salient differences is that in union the internal clause boundary is destroyed, while in 1-ascension it is preserved.

If we can find tests that are sensitive to the presence or absence of the internal clause boundary, we should be able to determine with an even greater degree of definitiveness whether 1-ascension or clause union has occurred. In many languages passive constructions, topicalization and the use of reflexives vs. pronominals are affected by the presence or absence of an internal clause boundary. Let us take each one of these and determine, independent of causative clauses, if they exhibit sensitivity to internal clause boundaries in Hebrew. Should we find that they are affected, then by applying these tests to the causative structures we may find the necessary evidence to either support or refute our claim that 1-ascension has occurred in structures like that of (14).

In the pages that follow the embedded clause in the biclausal structure is bounded by brackets '[. . .]'. For the sake of clarity this is also

done in the causative structures. It may seem presumptuous at this point to have included brackets in the latter case when as of yet, we have not proven that there is indeed an embedded clause. But the inclusion of brackets in these structures at least indicates where those internal boundaries could occur if we are looking at 1-ascension and not causative clause union.

4.1 Passive Constructions

Consider the following sentences:

(19) Mary natna et hashever le John.
M. gave ACC the book to J.
'Mary gave the book to John.'

(20) Hashever nitan le John al yeidei Mary.
the book was given to J. by M.
The book was given to John by Mary.

As an aside, it is important here to note that 3-2 advancement (dative movement) does not occur in Hebrew. The following sentences demonstrate this fact and additional evidence is also cited in Cole (1976).

(21) Natati le Omer et hatopouach.
(I) gave DAT O. ACC the apple
'I gave the apple to Omer.'

(22)**Natati et Omer et hatopouach.
(I)gave ACC O. ACC the apple
'I gave Omer the apple.'

(23 Hem shalxu le David et haouga.
They sent DAT D. ACC the cake
'They sent the cake to David.'

(24) **Hem shalxu et David et haouga.
They sent ACC D. ACC the cake
'They sent Davide the cake.'

In (21) and (23) the indirect object is marked with the DAT case. It should be noted here that in either instance, the indirect object could also occur in the position after the direct object. According to the informants that were consulted for this paper, however, the order of constituents that appears in (21) and (23) is the most common.

In (22) and (24) when the indirect object is made to advance to direct object and thus bear ACC case marking, the result is ungrammatical. This was confirmed unanimously by all informants.

Referring back to the structures in (19) and (20), (20) represents the passive counterpart of the monoclausal construction in (19). Given that 3-2 advancement does not occur in Hebrew, there is no instance where *John* (the indirect object) can be promoted to 1. It appears that only 2's are subject to passivization.

The following series of sentences display the passive pattern in biclausal structures.

(25) Ilana amra [she Mary natna et hashever le John].
I. said [that M. gave ACC the book to J.]
'Ilana said that Mary gave the book to John.'

(26) Ilana amra [she hashever nitan le John al yeldei Mary].
I. said [that the book was given to J. by M.]
'Ilana said that the book was given to John by Mary.'

(27)**Hashever neamra al yeldei Ilana [she Mary natna le John].
the book was said by I. [that M. gave to J.]
The book was said by Ilana that Mary gave to John.'

(25) represents a straightforward biclausal structure that does not involve any causative predicates. In (26) it is possible to passivize within the embedded clause. In (27), however, passive is not permitted across the internal clause boundary. In other words, the final 2 of the downstairs clause cannot be advanced to 1 in the matrix clause, although it can advance to 1 within the embedded clause.

Now let us consider what might happen when we examine the causative constructions.

(28) Ilana hichrach et Mary [latet et hashever le John].
I. caused ACC M. [to give ACC the book to J.]
'Ilana made Mary give the book to John.'

Based on (28), if union has occurred we would expect that *the book* should be able to undergo passive because it is the final-2 (see relational network (17)). Since there are no internal clause boundaries, we would also

assume that there is nothing preventing it from advancing to subject position. Note the results in (29). (Brackets have not been included because we are assuming that causative clause union has occurred.)

(29) **Hashever hochracha al yeldei Ilana Mary natna le John.
the book was made by I. M. gave to J.
The book was made by Ilana Mary gave to John.'

The predicted results of union are clearly ungrammatical. On the other hand, if 1-ascension has occurred, we would expect that *Mary* (after ascending to 2 in the main clause), should be able to undergo subsequent passivization. Note the grammatical result in (30).

(30) Mary hochracha al yeldei Ilana [latet et hashever le John].
M. was made by I. [to give ACC the book to J.]
'Mary was made by Ilana to give the book to John.'

If we take a straightforward biclausal structure and attempt to passivize the entire embedded clause, we get the grammatical sentence in (31).

(31) [She Mary natna et hashever le John] neamra al yeldei Ilana.
that M. gave ACC the book to J.] was said by I.
'That Mary gave the book to John was said by Ilana.'

In (31) the entire embedded clause functions as a direct object and can thus undergo passivization. Native speaker response to this structure was that it was cumbersome but considered grammatical. This confirmed that clausal 2s can undergo 2-1 advancement.

With the causative structure, however, if the lower subject has ascended to the matrix clause and puts the remainder of the embedded clause *en chomage* (re: (18)), then any attempt to passivize the embedded clause should be ungrammatical. Note the results in (32).

(32) **[latet et hashever le John] hochracha Mary al yeldei Ilana.
[to give ACC the book to J.] was made M. by I.
'To give the book to John was made Mary by Ilana.'

This latter exercise does not definitively indicate that the remainder of the embedded clause is a 2-CHO. To confirm this we would have to establish tests that are sensitive specifically to 2-CHO's. It does, however, tell us that the remaining embedded clause (after 1-ascension) is not a 2.

The examples involving passive indicate that in the causative structure there is a clause boundary to which the process of 2 to 1 advancement is sensitive. This could not be accounted for if the structure was the result of causative clause union.

4.2 Topicalization

Some languages will not permit an embedded direct object or indirect object to move to the beginning of the matrix clause by Topicalization. (33) to (35) exemplify topicalization in monoclausal sentences.

(33) Mary natna et hashever le John.
M. gave ACC the book to J.
'Mary gave the book to John.'

(34) Le John Mary natna et hashever.
to J. M. gave ACC the book
'To John, Mary gave the book.'

(35) Et hashever Mary natna le John.
ACC the book M. gave to J.
'The book, Mary gave to John.'

(33) represents a simple clause containing both a direct object and indirect object. When the indirect object is topicalized in (34), the result is grammatical. Likewise, in (35) when the direct object is topicalized, the result is grammatical. These examples demonstrate that as long as the direct object and indirect object are in the main clause, they can be topicalized.

Our concern, however, is with what happens when the indirect object and direct object of an embedded clause are topicalized to the matrix clause. Examples (36) to (38) demonstrate this possibility.

(36) Ilana amra [she Mary natna et hashever le John].
I. said [that M. gave ACC the book to J.]
'Ilana said that Mary gave the book to John.'

(37)**Le John Ilana amra [she Mary natna et hashever].
to J. I. said [that M gave ACC the book
'To John, Ilana said that Mary gave the book.'

(38)**Et hashever Ilana amra [she Mary natna le John].
ACC the book I. said [that M. gave to J.]
'The book, Ilana said that Mary gave to John.'

The embedded clause boundary is marked by *she* in these examples. (36) indicates that *John* is the indirect object and *the book* is the direct object of the lower clause. In (37) an attempt is made to topicalize *John* to the matrix clause. In (38) *the book* is topicalized to the main clause. In both cases the results are ungrammatical.

Thus we have confirmed the claim that in Hebrew the indirect object and direct object from an embedded clause cannot be topicalized to the main clause. Using this paradigm let us now see if the causative structures pattern in the same way. If they do, that is if the embedded indirect object and direct object cannot be topicalized to the matrix clause, we can conclude that the existence of a clause boundary must be prohibiting this type of topicalization. On the other hand, if the results are grammatical, it would make sense to say that the causative structure is probably a result of union because no clause boundary exists to prevent topicalization. Let us examine the data.

(39) Ilana hichrach et Mary [latet et hashever le John].
I. caused ACC M. [to give ACC the book to John]
'Ilana made Mary give the book to John.'

(40) **Le John Ilana hichrach et Mary [latet et hashever].
to J. I. caused ACC M. [to give ACC the book]
'To John, Ilana made Mary give the book.'

(41)** Et hashever Ilana hichrach et Mary [latet le John].
ACC the book I. caused ACC M. [to give to J.]
'The book, Ilana made Mary give to John.'

(39) depicts the causative structure before topicalization. (40) and (41) indicate the results when we attempt to topicalize the indirect object and direct object (respectively) of the embedded clause before the matrix clause. Both attempts yield ungrammatical results.

Now examine (42).

(42) Et Mary Ilana hichrach [latet et hashever le John].
ACC M. I. caused [to give ACC the book to J.]
'Mary, Ilana made to give the book to John].'

(42) provides evidence that *Mary* is in the matrix clause, otherwise the results would be ungrammatical.

From this we can conclude that there must be a clause boundary that is prohibiting the indirect object and direct object from being able to topicalize. If this is the case, then clause union has not occurred here. The fact that *Mary* has been able to topicalize in (42) is a strong indicator that it has ascended to the matrix clause.

4.3 Reflexives vs. Pronominals

The final test involves reflexives and pronominals. Two principles will be exploited:

(43) a) reflexives must have clausemate antecedents
b) pronominals must not have clausemate antecedents.

(The notion of 'clausemate' is taken to mean 'within the same clause' and it will be assumed in the following examples that the principles apply to the final stratum of each cycle.)

As we have done with the other tests, let us first see how these principles work on simple and embedded clauses before applying them to the causative clauses. Sentences (44) and (45) exemplify monoclausal structures.

(44) John$_i$ haber et atsmo$_i$.
J. likes ACC himself
'John$_i$ likes himself$_i$.'

(45)*John$_i$ haber (et) oto$_i$.
J. likes (ACC) him
'John$_i$ likes him$_i$.'

In (44) where *himself* refers to *John* the sentence is grammatical because the reflexive (*himself*) must have a clausemate antecedent and it does. Principle (43b) tells us that a pronominal cannot have a clausemate antecedent, but in (45) because there is only one clause, the pronominal does have a clausemate antecedent and is thus ungrammatical. Now examine the biclausal structures in (46) and (47).

(46)**John$_i$ amra [she Mary haber et atsmo$_i$].
J. said [that M. likes ACC himself]
'John$_i$ said that Mary likes himself$_i$.'

(47) John$_i$ amra [she Mary haber (et) oto].
J. said [that M. likes (ACC) him]
'John$_i$ said that Mary likes him$_i$.'

As in the topicalization examples, *she* marks the boundary of the embedded clause. We know that reflexives must have clausemate antecedents. In (46), however, the coindexing indicates that *himself* refers to *John*. Since *John* is outside of the embedded clause in which *himself* occurs, the results are ungrammatical.

In (47) the converse occurs. Here the coindexing indicates that the pronominal *him* in the embedded clause has as its antecedent *John* in the matrix clause. Since pronominals cannot have their antecedents as clausemates, the results are ungrammatical.

Before seeing how the causative structures perform with respect to this patterning of reflexives and pronominals, let's speculate on what could happen. If union is involved in the causative structure that we have been examining we would predict that:

(48) **a)** since union results in the formation of one clause, use of reflexives should be grammatical because they require clausemate antecedents.

b) since union destroys the original boundary between matrix and embedded clauses, the use of pronominals should be ungrammatical because they cannot have clausemate antecedents.

On the other hand, if union is not involved as we suspect, then the matrix and embedded clause boundaries should be intact and we would anticipate the following:

(49) **a)** if a reflexive occurs in the embedded clause, and has its antecedent in the main clause, the results should be ungrammatical because reflexives require clausemate antecedents.

b) if a pronominal occurs in the embedded clause and has an antecedent in the matrix clause, the results should be grammatical since pronominals cannot have clausemate antecedents.

With these predictions in mind, consider sentences (50) and (51).

(50) John$_i$ hichrach et Mary [li haber (et) oto$_i$].
J. caused (ACC) M. [to like (ACC) him]
'John$_i$ made Mary like him$_i$.'

(51)**John$_i$ hichrach et Mary [li haber et atsmo$_i$].
J. caused ACC M. [to like ACC himself]
'John$_i$ made Mary like himself$_i$.'

It is clear from the results in (50) and (51) that the patterning follows the predictions that we established in (49) a) & b) in which clause union has not occurred. When we began this investigation, however, the aim was not merely to show that clause union has not occurred, but to show that 1-ascension **has** occurred.

In light of this reminder, let us now examine the following two critical sentences.

(52) **John$_i$ hichrach (et) oto$_i$ [li haber Mary].
J. caused (ACC) him [to like M.]
'John$_i$ made him$_i$ like Mary.'

(53) John$_i$ hichrach et atsmo$_i$ [li haber Mary].
J. caused ACC himself [to like M.]
'John$_i$ made himself$_i$ like Mary.'

Again, we know that pronominals cannot have clausemate antecedents. In (52) then, if union has occurred we could correctly predict that this would be ungrammatical. But if we suspect that 1-ascension has occurred we should still be able to justify the ungrammatical results. Since *him* is the ascended nominal from the embedded clause, and since it now stands in the same clause as its antecedent, the ungrammatical results can still be accounted for.

In addition, 1-ascension can still account for the grammaticality of (53). If *he* was the original embedded subject that got promoted to direct object position of the matrix clause (and thus reflexivized), we would expect the results to be grammatical because reflexives require clausemate antecedents.

5.0 Conclusion

The structure that we have been examining most certainly appears to be a product of 1-ascension rather than clause union. The arguments that have been used to substantiate this claim involve the following notions:

1) Case marking
2) Word order
3) Negation
4) Passive Constructions
5) Topicalization
6) Use of Reflexives vs. Pronominals

Regardless of the problem of 1-ascension vs. union, further investigation needs to be done with Hebrew data to see if there really are any clause union structures that involve other causative predicates. Based on this information, it would be interesting to reconsider Cole's (1976) claim and see if two types actually do exist.

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