Verb-types and Modality in Early Child L2 Root Infinitives[*]

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1. Introduction

This paper investigates to what extent child second language (L2) acquisition is similar to first language (L1) acquisition. The focus is on the nature of root infinitives (RIs) produced by children, namely root declarative clauses whose main verb is either a past participle or an infinitive, whereas a finite form is required in the target language (e.g. *papa partir* 'daddy leave-INF' instead of *papa part* 'daddy is leaving'). Previous research suggests that there exists a period, starting in the early phases of acquisition, during which RIs are produced by children learning French or German as an L1 (Pierce, 1992; Wexler, 1994) or an L2 (Prévost, 2003; Prévost & White, 1999). At first glance, it seems that child L1 and L2 RIs have several properties in common. First, when RIs occur, they are found along with finite clauses. In both learning contexts, finite and nonfinite forms are observed, with the incidence of RIs decreasing over time. Second, nonfinite verb forms seem to be truly nonfinite, in that they are found in nonfinite positions. Infinitival verbs never precede negation (they always follow it) and they are never used with subject clitics; if they are found with a subject pronoun, the pronoun is a strong pronoun, such as *moi* 'me' in French, which presumably bears non-nominative default case. Despite these similarities, further investigation is needed in order to establish whether L1 and L2 RIs are of the same nature. In particular, research in early L1 acquisition of languages with overt infinitival morphology reports a double correlation between finiteness and verb type, and between finiteness and modality (e.g. Ferdinand, 1996). Verbs expressing an event, e.g. *marcher* ('walk'), are found to be nonfinite, as in (1a), in contrast to state verbs, e.g. *être* ('be'), which are always finite, as in (1b).

(1)   a. moi aller   dehors   (Daniel: 1;10;2)
            me go-INF outside
         b. est froid le camion   (Philippe: 2;2;0)
             is cold the truck

The vast majority of RIs produced by children also bear a modal interpretation in contrast to finite declaratives, which tend to receive a present or past temporal reading. Hence, an RI such as *papa partir* is likely to convey a boulemaic meaning (i.e. 'daddy wants to leave'), while *papa part* would be an observation that 'daddy is leaving'. Curiously, the existence of such correlations has not been examined in child SLA, except in L2 English where no relation between finiteness and verb-type is reported (Gavruseva, 2000). Note that no such relation is observed in L1 English either, which, according to Hoekstra and Hyams (1998), is due to the fact that English lacks overt infinitival morphology.

2. Verb-types and Tense in adult and child grammars

According to Vendler (1957), event-denoting predicates have internal time structure. They can either refer to a homogenous process going on for some time with no overt or inherent culmination point, such as *cry*, or denote an event with a culmination point after which the event no longer takes place, such as *find*. By contrast, non-eventive verbs are not associated with any temporal structure. It is difficult to imagine a beginning or an end point to what it is they denote. Non-eventive verbs include *be* and *have*, verbs describing an internal state, such as *love*, *know* and *want*, verbs expressing a capacity or a necessity, such as *can* and *must*, and auxiliaries.

Wijnen (1998) proposes that the temporal reference of nonfinite eventive verbs can be inferred deictically, in contrast to non-eventive predicates. Following Kratzer (1989) and Zwarts (1992), Wijnen argues that eventive verbs select an event argument, which takes the form of an event variable ranging over possible events in the semantic representation. This variable is related to Tense, or in Higginbotham's (1985) terms, it is theta-bound by Tense. When Tense is part of the representation, the event argument is interpreted via binding to Tense. However, when T is absent from the representation, the event argument can be interpreted contextually, which in turn means that the relation between the event time and the utterance time is free (Wijnen, 1998: 388). In contrast, non-eventive predicates do not select an event argument. Therefore, the temporal reference of these verbs cannot be interpreted deictically. In other words, non-eventive verbs need Tense in order to be referentially bound. If RIs lack Tense, it follows that these verbs cannot appear in such sentences.

As for the fact that a large proportion of RIs receive a future/modal interpretation, several scholars point to the [irrealis] property of overt infinitival markers (Hyams, 2001; Wijnen, 1998). Another proposal is that RIs involve a null modal with aspectual properties (Boser et al, 1992; Ferdinand, 1996). The null element, which appears under Infl, would select a nonfinite predicate.

3. Hypotheses and predictions

According to the Missing Surface Inflection Hypothesis (MSIH), L2 child RIs are finite despite the fact that the main verb appears in the infinitive (Haznedar and Schwartz, 1997). The infinitival ending is used as a substitute for finite markers, presumably due to mapping problems between syntax and morphology (Lardiere, 2000). Under this approach, apparently nonfinite forms appear in finite positions. On the Truncation hypothesis (TH), RIs are nonfinite. Functional categories, held to be part of initial grammars, are assumed not to be systematically projected (Prévost and White, 1999). When VP is the root, the resulting utterance is an RI; if IP or CP is the root, a finite clause is produced. Evidence for the TH has been found in early child L2 French: when main verbs bear an infinitival marker, they have nonfinite properties, contrary to what the MSIH predicts (Prévost and White, 1999).

The following predictions are based on the incidence of lexical verbs in finite and nonfinite declaratives. Previous research reports that non-lexical verbs, such as modals and the copula, occur solely in the finite form in child L2 French and German (Prévost, 2003; Prévost and White, 1999). However, there is a potential confound introduced by non-lexical forms in the investigation of modality and verb-types, given the fact that they are extremely frequent in the input and that they overwhelmingly occur in the finite form. Therefore, the most reliable data for isolating the purely semantic effect of eventiveness would be to compare eventive and non-eventive lexical main verbs. Such an approach is also adopted by Wijnen (1998) for child L1 Dutch.

Under the TH, the underlying representation of RIs lacks functional categories, including Tense. Therefore it is expected that only eventive predicates, and not non-eventive ones, will appear in such clauses. In contrast, non-eventive verbs should be restricted to finite declaratives. A further prediction is that the interpretation of RIs should be free: they should refer to present, past or future events. Moreover, there should be a contingency between finiteness and modality. Because RIs are considered nonfinite, we should observe a high incidence of future/modal interpretation, due to the [irrealis] property of the infinitival morphology.

Under the MSIH, Tense is part of the representation of RIs. Hence, all verb types should be observed in such declaratives, including eventive and non-eventive predicates. Furthermore, there should be no contingency between modality and finiteness, since all verbs are considered to be equally finite. Hence, finite and nonfinite predicates should receive similar interpretations. Should predicates be found to bear a modal reading, the incidence of this interpretation should be similar in both finite and nonfinite declaratives.

Under the null auxiliary hypothesis (NAH), finite declaratives and RIs are equally finite and their structures involve functional categories. Following Boser et al (1992), I assume that the null modal/auxiliary needs to be identified by the subject occupying the specifier of the root. It can take the form of a DP or a subject-wh word (such as *qui* 'who'). Hence, if (nominative) subject DPs and subject-questions are used, they should be found together with finite and nonfinite verbs (e.g. *qui partir?* 'who leave-INF'). In contrast, strong pronoun subjects, such as *moi* 'me' (which bears non-nominative default case), should not occur in either context. Finally, the subject of RIs is expected to be overt, as it needs to identify the null auxiliary. Thus, subjectless RIs are not expected to be found. As for modality, the NAH clearly predicts that there should be a contingency between finiteness and modality, since RIs, but not finite declaratives, are held to involve a null modal.

4. The study

Spontaneous production data from two English-speaking children learning French, Greg and Kenny, were analysed (Lightbown, 1977). First exposure to French occurred at age 4;9 for Kenny and age 4;5 for Greg. They were first interviewed when they were attending an immersion program at a kindergarten in Montreal. They then attended a regular French kindergarten. At the time of the first recording, Kenny was 5;4 and Greg was 5;8. Neither child spoke much during the first interview (which is not considered in the present study). They were then recorded, either separately or together, once a month for about 28 months. In all, Kenny was interviewed 20 times, and Greg 13 times. In previous research, Prévost and White (1999) report that both children produced RIs for the first 18 months covered by the interviews. As mentioned above, these utterances were argued to be nonfinite.

The present study is restricted to this period. Only non-interrogative main clauses were considered. In order to decide about the modal and temporal reading of a root declarative, I looked at the discoursive and situational context. I took into consideration the previous two or three interventions of the child and the interviewer, as well as their next two or three utterances. Situational comments were also taken into account. In some cases, the context was not helpful enough for me to reach a firm conclusion about modality or temporality. Those utterances were not retained for analysis. As for predicate-types, I considered the semantics of the verb, as well as its arguments and the tense of the clause, which can alter aspectual interpretations. For instance, *il construit une maison* 'he's building a house' refers to an activity, while its past counterpart *il a construit une maison* 'he built a house' can be considered an achievement. Note that in both cases, the resulting interpretation falls within the general class of eventive predicates.

5. Results
5.1. Finiteness and verb-type

On the TH, there should be a contingency between finiteness and eventivity, such that non-eventive predicates should not appear in RIs. This is not expected under the MSIH which predicts that infinitival non-eventive forms should be found. Both eventive and non-eventive verbs were used by the two children throughout the first 18 months of acquisition (Tables 1 and 2). As shown in Table 1, Kenny's RIs all exhibit event-denoting predicates. A variety of verbs are observed in his RIs, such as *monter* 'climb' (month 2), *serrer* 'tighten', *manger* 'eat', *visiter* 'visit' and *sauter* 'jump' (month 3), and *jouer* 'play', *ouvrir* 'open', *aller* 'go' and *défaire* 'undo' (month 5). Examples are given in (2).

Table 1: Eventive and non-eventive lexical verbs in Kenny's declaratives

Month	Nonfinite declaratives				Finite declaratives			
	+Ev	-Ev	%+Ev	%-Ev	+Ev	-Ev	%+Ev	%-Ev
0.5	0	0	0	0	0	0	0	0
1	0	0	0	0	5	0	100	0
2	1	0	100	0	0	2	0	100
3	4	0	100	0	1	0	100	0
4	0	0	0	0	5	0	100	0
5	5	0	100	0	3	3	50	50
7	6	0	100	0	2	2	50	50
8	7	0	100	0	7	0	100	0
9	5	0	100	0	1	1	50	50
9.5	8	0	100	0	1	2	33.3	66.6
10	5	0	100	0	3	1	25	75
11	5	0	100	0	9	0	100	0
14	9	0	100	0	4	6	40	60
15	12	0	100	0	11	7	61.1	38.9
18	6	0	100	0	17	12	58.6	41.4
Total	*73*	*0*	*100*	*0*	*69*	*36*	*66*	*34*

(2)   a. une fille monter   (Kenny, month 2)
             a   girl   climb-INF

b. ma ferme visiter   toi   (Kenny, month 3)
  my farm   visit-INF you

c. moi prendre   une ça   (Kenny, month 8)
  me take-INF a   that

In contrast to what is observed in RIs, some finite predicates are non-eventive (34%). In fact, Kenny's non-eventive predicates are restricted to finite declaratives, whereas his eventive verbs are evenly split between finite and non-finite contexts. Out of the 143 eventive predicates found in root declaratives, 70 (49%) appear in finite utterances and 73 (51%) are in RIs. It is worth pointing out that a variety of non-eventive predicates were used, such as *savoir* 'know' (month 2), *rester* 'stay' (month 5), *avoir* 'have' (month 7), and *connaître* 'know' (month 14). Examples of eventive and non-eventive finite verbs are given in (3a-b) and (3c-d).

(3)   a. mon papa vient   maison   (Kenny, month 1)
       my   dad come-3S home

     b. aide   papa après   (Kenny, month 1)
      (I) help-1S dad   later

     c. moi sais [: heu] in anglais but pas de   français   (Kenny, month 2)
      me know-1S   in English but not any French

     d. elle a   six et ça   (Kenny, month 9)
      she have-3S six and this

It should be noted that finite lexical non-eventive predicates are observed quite early in Kenny's corpus. Although there are relatively few of them until month 4, their number increases thereafter. Their ratio with respect to the total of lexical verbs ranges between 39% and 75% until month 18. It is thus impossible to isolate a period during which finite declaratives only involve eventive predicates.

Similar tendencies are found in Greg's data (Table 2). There too a significant contingency between finiteness and predicate-type is obtained (χ^2 = 51.713, p < .0001). Almost all of Greg's RIs contain event-denoting predicates, with a large variety of verbs being observed, such as *jouer* 'play' and *mettre* 'put' (months 5 and 9.5), *aller* 'go' (month 9.5), and *colorer* 'colour', *écrire* 'write' and *manger* 'eat' (month 10). As with Kenny, almost only lexical verbs were found in Greg's RIs, as illustrated in (4).

Table 2: Eventive and non-eventive lexical verbs in Greg's declaratives

Month	Nonfinite declaratives				Finite declaratives			
	+Ev	-Ev	%+Ev	%-Ev	+Ev	-Ev	%+Ev	%-Ev
5	7	0	100	0	7	2	77.8	22.2
9.5	2	1	66.6	33.3	5	5	50	50
10	13	0	100	0	2	4	33.3	66.6
11	2	0	100	0	2	8	20	80
14	12	0	100	0	26	24	52	48
15	13	0	100	0	16	27	37.2	62.8
18	7	0	100	0	20	29	40.8	59.2
Total	*56*	*1*	*98.3*	*1.7*	*78*	*99*	*43.5*	*56.5*

(4)   a. moi jouer   avec le train   (Greg, month 5)
      me play-INF with the train

     b. juste le   mettre   comme ça   (Greg, month 5)
      just it[ACC] put-INF like   this

     c. moi colorer   ça   (Greg, month 10)
      me colour-INF this

We also observe that lexical finite predicates are almost evenly split between eventive and non-eventive verbs. This is illustrated in (5a-b) and (5c-d). In all, 78/134 (58.2%) eventive verbs produced by Greg occur in finite roots, in comparison to 99/100 (99%) non-eventive predicates. Again a variety of non-eventive predicates were used, such as *laisser* 'leave' and *savoir* 'know' (month 5), *aimer* 'love' and *avoir* 'have' (month 9.5), *manquer* 'miss' (month 10), *rester* 'stay' (month 14), *connaître* 'know'

(month 15), and *penser* 'think' and *croire* 'believe' (month 18). Finally, there is no period during which Greg's finite clauses only display either eventive or non-eventive lexical verbs.

(5)   a. on le   laisse   comme ça   (Greg, month 5)
            we it[ACC] leave-3S like   this
        b. il manque une roue ici   (Greg, month 10)
            it miss-3S a   tire here
        c. le bébé y va   là   (Greg, month 5)
            the baby he go-3S there
        d. moi je joue   avec une...   (Greg, month 5)
            me I play-1S with a

To summarise, almost all RIs exhibit event-denoting predicates, in contrast to finite declaratives which contain non-eventive verbs. This conforms to the predictions of the TH. Since non-eventive predicates need Tense in order to receive temporal reference, it was expected that they should not appear in RIs if functional categories are not projected. The contingency between finiteness and predicate-type is not predicted by the MSIH, according to which RIs are finite and involve Tense. The contingency is similar to what is observed in child L1 French and Dutch.

5.2. Finiteness and modality

On the TH, the reference of RIs should be free, since T is held to be absent from their representation. Moreover, a large percentage should have a modal interpretation due to the [irrealis] property of the infinitival marker. This is not predicted by the MSIH, given that RIs are considered to be finite. In Kenny's data, there is a strongly significant contingency between finiteness and modality ($\chi^2 = 89.484$, p < 0.0001). Most of his RIs have a future/modal interpretation (often boulemaic), which is not the case for verbs appearing in finite declaratives (Table 3). This is compatible with the TH, but not with the MSIH. Examples of RIs with a modal reading are given in (6).

Table 3: Interpretation of Kenny's lexical verbs

Month	Nonfinite declaratives				Finite declaratives			
	Past/Present	Future/Mod	%P/P	%F/M	Past/Present	Future/Mod	%P/P	%F/M
0.5	0	0	0	0	0	0	0	o
1	0	0	0	0	3	1	75	25
2	1	0	100	0	2	0	100	0
3	1	2	33.3	66.7	0	1	0	100
4	0	0	0	0	5	0	100	0
5	1	3	25	75	6	0	100	0
7	4	2	66.7	33.3	3	1	75	25
8	3	3	50	50	7	0	100	0
9	0	5	0	100	1	1	50	50
9.5	1	4	20	80	3	0	100	0
10	3	1	75	25	1	2	33.3	66.7
11	1	4	20	80	7	2	77.8	22.2
14	1	5	16.7	83.3	11	0	100	0
15	3	6	33.3	66.7	15	0	100	0
18	1	2	33.3	66.7	22	2	91.7	8.3
Total	*20*	*37*	*35.1*	*64.9*	*86*	*10*	*89.6*	*10.4*

(6)   a. inchoative interpretation
        Interviewer: on va   mettre la maman aussi dans l' étable?
                          we go-3S[INCHO] put-INF the mum   also in   the stable
        Kenny: oui serrer #   le farme   (Kenny, month 3)
                          yes tight-INF the farm
        b. deontic interpretation
        Kenny: non pas pas défaire   ça   (Kenny, month 8)
                          no   not not undo-INF this

| Interviewer: | tu veux pas que je l' défasse? |
| | you want-2S not that I it[ACC] undo-1S[SUBJ] |

c. boulemaic interpretation

Interviewer:	ça saute hein ça des kangourous?
	this jump-3S hmm this some kangoroos
Kenny:	non jouer ça. (Kenny, month 8)
	no play-INF this
Interviewer:	tu veux pas jouer à ça?
	you want-2S not play-INF at this

This said, it is not the case that all the RIs produced by Kenny have a modal interpretation: as many as 35% have a present or past reading, which essentially suggests that the interpretation of RIs is free. This is illustrated in (7). Importantly, no developmental trend can be observed in the interpretation of Kenny's RIs: both modal and non-modal readings are found from the outset.

(7)   a. present

Interviewer:	mais c'est quoi ça Kenny?
	but it is what this K.
Kenny:	une fille monter. (Kenny, month 1)
	a girl climb-INF
Interviewer:	c'est quelqu'un qui monte ici oui.
	it is someone who climb-3S here yes

    b. past

Interviewer:	oui y avait pas mangé ce matin?
	yes he had not eaten this morning
Kenny:	non I didn't.
Kenny:	moi pas manger aujourd'hui. (Kenny, month 7)
	me not eat-INF today

The results on modality in finite root declaratives are opposed to those in RIs. Close to 90% of Kenny's lexical verbs (86/96) have a present or past interpretation (8). Such a distribution is found in almost all the samples examined. Only 10/96 (10.4%) finite verbs have a modal/future reading (9).

(8)   a. y tombe   (Kenny, month 4)
        it fall-3S (=is falling)

    b. non, il pleut   (Kenny, month 8)
        no it rain-3S (=is raining)

(9)   inchoative interpretation

Kenny:	aide papa après (Kenny, month 1)
	(I) help-1S dad later
Kenny:	Daddy I'm gonna help after ok.

The findings on Greg are once again similar to what is observed in Kenny's data (Table 4). First, there is a significant contingency between finiteness and modality ($\chi^2 = 143.261$, $p < .0001$). The majority of Greg's RIs have a modal interpretation (37/48 = 77%), compared to only 6% (11/177) of his finite declaratives (see (10)). Again, the results go in the direction of a truncation account.

(10)   a. boulemaic interpretation

i. Greg:	moi je pas jouer avec ça. (Greg, month 5)
	me I not play-INF with this
Interviewer:	tu veux pas jouer avec ça?
	you want-2S not play-INF with this
Greg:	non pas maintenant.
	no not now

    b. deontic interpretation

| i. Interviewer: | veux- tu que j' essaie? |
| | want-2S you that I try-1S[SUBJ] |

Greg: oh juste le   mettre   comme ça ok.   (Greg, month 5)
                oh just it[ACC] put-INF like   this

c. inchoative interpretation

Greg: moi chercher   n'autre cheval.   (Greg, month 11)
                me look+for-INF another horse

Interviewer: oui si tu   veux.
                yes if you want-2S

Table 4: Interpretation of Greg's lexical verbs

Mth	Nonfinite declaratives				Finite declaratives			
	Past/Present	Future/Mod	%P/P	%F/M	Past/Present	Future/Mod	%P/P	%F/M
5	0	6	0	100	8	0	100	0
9.5	1	2	33.3	66.7	10	0	100	0
10	2	10	16.7	83.3	5	1	83.3	16.7
11	1	1	50	50	9	1	90	10
14	1	9	10	90	49	4	92.5	7.5
15	3	7	30	70	35	2	94.6	5.4
18	3	2	60	40	50	3	94.3	5.7
Total	*11*	*37*	*22.9*	*77.1*	*166*	*11*	*93.8*	*6.2*

In addition, 23% of Greg's RIs (11/48) have a temporal reading (over 30% in half the samples considered). Examples are given in (11). As with Kenny, a clear-cut developmental pattern is difficult to establish: although all 6 RIs produced by Greg at month 5 have a clear modal reading, the dominance of the modal interpretation is short-lived.

(11)   a. present

Interviewer: qu'est-ce que tu fais   là   Greg?
                  what   you do-2S here G.

Greg: enlever   les dents.   (Greg, month 14)
                remove-INF the teeth

Interviewer: tu lui enlèves   les dents?
                you him remove-2S the teeth

b. past

Interviewer: oh y saute   le   singe.
                oh it jump-3S the monkey

Greg: lancer.   (Greg, month 15)
                throw-INF

Interviewer: tu l'   as   lancé?
                you it[ACC] have-2S thrown

Second, over 90% of the finite lexical forms produced by Greg (166/177) have a present or past interpretation, which is similar to what is observed for Kenny (see (12)). This overwhelming trend is seen in all samples. In (13), I give an example of a finite declarative with a modal interpretation.

(12)   a. le monsieur va   là   (Greg, month 5)
         the mister   go-3S there

    b. le lion mange les girafes   (Greg, month 11)
         the lion eat-3S the giraffes

(13)   Greg: moi je joue   avec une l' autre   (Greg, month 10)
                me I play-1S with a the other

Interviewer: une auto?
                a   car

Comment: Greg takes out farm animals from a box

To summarise, most RIs have a modal reading, compared to just around 10% in the case of finite predicates. The latter almost always receive a temporal interpretation. This conforms to the predictions

of the TH, which holds that RIs contain truly nonfinite verbs displaying [irrealis] infinitival morpholoy. The results are not compatible with the MSIH: a difference between finite and nonfinite declaratives in terms of future/modal and present/past interpretation is not expected on this approach. Once again, these results are similar to what is reported in L1 Dutch (Wijnen, 1998).

5.3. DP and strong pronoun subjects in root declaratives

If RIs involve null modals, as suggested by Ferdinand (1996) for child L1 French, then similar subjects should occur in finite declaratives and in RIs (given that both clause types are considered to involve functional categories). In particular, if DP subjects are used, they should be found in both clauses. In contrast, strong pronouns, which bear non-nominative case, should be excluded from both contexts. Finally, null subjects should be excluded from RIs since the null auxiliary needs to be identified by an overt subject. The distribution of subjects in finite and nonfinite declaratives produced by the two children is discussed in Prévost and White (1999). The results on DP, strong pronoun, and null subjects are summarised in Table 5. As can be seen, the predictions of the NAH are not met. First, there is a significant contingency between the incidence of DP subjects and clause type, such that DP subjects are severely restricted to finite declaratives (Kenny: χ^2 = 12.736, p < .001).[1] Second, strong pronoun subjects are observed, contrary to what is expected, and their incidence is significantly greater in RIs than in finite root declaratives (Kenny: χ^2 = 73.311, p < .0001; Greg: χ^2 = 32.874, p < .0001). They account for 59.2% of the subjects found in Kenny's RIs, and for 25.9% in Greg's.[2] Finally, the incidence of subjectless RIs is quite high in both corpora. They account for about 40% of Kenny's RIs, and over half of Greg's. Examples of DP subjects in finite declaratives and strong pronoun subjects in RIs are given in (14) and (15). Some subjectless RIs are given in (16).

Table 5: DP, strong pronoun, and null subjects in finite and nonfinite roots

Learner	Finiteness	Declarative	DP subjects	Str pron.	Null
Kenny	+finite	428	115 (26.9%)	65 (15.4%)	87 (20.3%)
	-finite	76	6 (7.9%)	45 (59.2%)	23 (30.3%)
Greg	+finite	591	99 (16.7%)	32 (5.4%)	59 (10%)
	-finite	58	0 (0%)	15 (25.9%)	31 (53.4%)

(14)   a. mon papa vient   maison   (Kenny, month 1)
           my father come-3S home
       b. le bébé va   là   (Greg, month 5)
           the baby go-3S there

(15)   a. toi aller   à Greg's   (Kenny, month 5)
           you go-INF to Greg's
       b. moi jouer   avec le train   (Greg, month 9.5)
           me play-INF with the train

(16)   a. jouer   de hockey   (Kenny, month 9.5)
           play-INF of hockey
       b. manger les oreilles   (Greg, month 10)
           eat-INF the ears

With respect to development, both children produce DP subjects in the earliest interviews and use them consistently thereafter. Strong pronouns and null subjects start being used almost as soon as RIs emerge, and they occur in almost all interviews where RIs are found. These findings suggest that RIs

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[1] A chi-square analysis could not be run on Greg's data because one of the cells is equal to zero (Greg did not produce any DP subjects in nonfinite clauses).

[2] In Kenny's data, 65/428 (15%) finite declaratives have a strong pronoun subject. However, almost half of these cases (31/65) involve only two forms, i.e. *moi est* ('me is') and *moi fais* ('me do'), which suggests that the incidence of such subject pronouns is not productive in finite contexts.

do not involve null auxiliaries and that their underlying representation does not include functional categories, contrary to the tenets of the NAH.

5.4. Verb-forms in subject questions

Another prediction of the NAH is that both finite and infinitival main verbs should be found in interrogatives questioning the subject. This is because the subject wh-word *qui* can act as an identifier of the null modal/auxiliary in such clauses. Only 25 *qui*-questions were identified in Kenny's and Greg's data. Kenny produced 15 *qui*-questions (mostly as of month 14), while 10 were found in Greg's data (mostly at months 5 and 9.5). Almost none of these questions exhibit a nonfinite verb; examples are given in (17). The only instances of nonfinite *qui*-questions occurring in the data are given in (18). This further disconfirms the null modal approach of RIs in child SLA.

(17) a. qui est là?   (Kenny, month 7)
          who is there
      b. qui a   fait   ça?   (Kenny, month 10)
          who has done this
      c. qui va   ici?   (Greg, month 11)
          who go-3S here
      d. qui met   ça   là?   (Greg, month 12)
          who put-3S this there

(18) a. qui faire?   (Kenny, month 14)
          who do-INF
      b. qui gagner   ça?   (Kenny, month 18)
          who win-INF this

6. Discussion and conclusion

Two strong contingencies were observed in this study: first, non-eventive predicates are restricted to finite declaratives, whereas eventive predicates can occur in either finite declaratives or in RIs. Second, the majority of RIs have a future/modal interpretation, against about 10% for finite declaratives. These results are compatible with the Truncation view which holds that RIs are VPs underlyingly, i.e. they do not involve functional categories. In particular, the absence of T in the structure of RIs prevents the occurrence of non-eventive predicates there since they need T in order to receive a referential interpretation. Such is not the case for eventive predicates, which do not need T in order to be interpreted. Rather, their interpretation can take place via the discourse. In addition, the fact that infinitival verbs in RIs are truly nonfinite means that the infinitival marker is associated with the [+irrealis] feature, which explains why most RIs have a future/modal reading. These results are not compatible with the MSIH. First, if T was present in the underlying structure of RIs, as contended by this approach, non-eventive predicates should also appear in such clauses, contrary to facts. Second, the MSIH holds that the infinitival marker in RIs is used as a substitute for finite markers. Hence, it is not associated with the [irrealis] property. This in turn predicts that there should not be any difference between finite and infinitival predicates as far as future/modal interpretation is concerned. This prediction is not met.

I also tested the null auxiliary approach to RIs according to which RIs involve a null auxiliary or modal in a functional projection. All the predictions based on this hypothesis were disconfirmed. In particular, there is a significant contingency between subject types and finiteness, such that DP-subjects and interrogative *qui*-subjects are restricted to finite contexts. This is not expected if finite and (apparently) nonfinite clauses involve functional categories. Moreover strong pronoun subjects were found to appear in RIs to a large extent, which is unexpected given that these elements are associated with default (non-nominative) case. Finally, a large number of subjectless RIs were observed, which is unexpected under the NAH, since the null auxiliary must be identified by an overt subject.

The properties of RIs in child L2 speech mirror the properties of RIs produced by children learning an L1 with overt infinitival morphology. In particular, it fits in well with data reported by Wijnen (1998) on L1 Dutch. In both cases, then, it can be argued that RIs lack functional categories. In her investigation of early L1 French, Ferdinand (1996) reports no initial overlap between finite and nonfinite verb types: finite verbs are all non-eventive, and main infinitival verbs are all event-

denoting. At the next stage (stage II), while finite verbs may be either eventive or non-eventive, all nonfinite verbs are still eventive. This is not what is observed in the L2 data that I investigated. In particular, eventive predicates were found to occur in finite root declaratives, as well as in RIs. This pattern repeats itself in practically all the recording samples examined. It could be argued that the children were already at a later stage of development when data collection began, one at which nonfinite predicates are solely eventive while finite main forms may either be eventive or non-eventive (which would correspond to Ferdinand's stage II in child L1 French). This does not seem to apply to Kenny, however, who was recorded less than a month after starting kindergarten. He almost used no verbs during his very first recording sessions. In his case, then, the data collected seem to truly reflect the earliest stages of acquisition. The difference between what is reported in L1 and L2 child French might come from the L1 data themselves and the methodology used by Ferdinand. There do not seem to be any non-eventive lexical predicates in the data she looked at, contrary to what was observed here. This probably forced her to mix lexical (eventive) verbs and non-lexical verbs in her research, a strategy that I carefully avoided. In any case, her analysis partly rests on the assumption that RIs involve null auxiliaries or modals, which, as we have seen, cannot be maintained in child L2 French.

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