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The Effects of Syntax on the Acquisition of Evidentiality

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1. Introduction

Evidentiality is the implicit citing of a source of evidence. Languages differ in how they constrain and encode evidentiality. For languages in which evidentiality is obligatory, the absence of an evidential marker renders a sentence unacceptable. According to Aikhenvald (2004), these languages include Turkish, Tibetan, Bulgarian, Quechua, Tariana and Korean, among others. For languages in which evidentiality is not obligatory, a sentence may or may not cite the source of evidence. Across languages, a sentence's evidential component is not part of the asserted content but instead makes its contribution at some other level, variously described as not-at-issue or speech-act content.

There have been many studies of the acquisition of evidentiality, beginning with the work on Turkish by Aksu-Koç (1988). Recent studies are listed in (1).

- (1) Ozturk & Papafragou (2008) on Turkish, Papafragou, Li, Choi & Han (2007) on Korean, de Villiers, Garfield, Gernet-Girand, Roeper & Speas (2009) on Tibetan, Fitneva (2008) on Bulgarian.

These studies all involve languages whose evidential strategy encodes evidentiality as well as an additional semantic component, that is, evidentiality is encoded in an aspect marker, a tense marker, or in embedding verbs with their own, additional, content. For example, in Turkish, evidentiality is encoded in a tense/aspect marker as shown in (2), from Aksu-Koç 1988. (See also Slobin & Aksu-Koç 1982; Aksu-Koç & Slobin 1986; Izvorksi 1997).

- (2) a. Ahmed gel-di.
Ahmed come-PST
'Ahmed came (I saw it).' *direct*
- b. Ahmet gel-miş.
Ahmet come-PPERF
'Ahmet came (I infer it or heard it).' *indirect*

(2a) is formed with the past tense marker *-di*. In addition to asserting that Ahmed came (in the past), it commits the speaker to having direct visual

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evidence of Ahmed’s arrival. (2b) is formed with the present perfect marker –*mİş*. While –*mİş* behaves like a standard perfect marker in, for instance, non-finite clauses, it marks both past tense and indirect evidentiality in many finite contexts, like (2b). The evidential component of (2b) commits the speaker to having indirect (in this case, either indirect visual or hearsay) evidence of Ahmed’s arrival.

Because evidential strategies like the Turkish “evidential perfect” are semantically complex in this way, it’s hard if not impossible to isolate the point at which children acquire the evidential component of the morpheme. We refer to this as the “polysemy problem.” To avoid this confound, we examine the acquisition of evidentiality in a language that does not adopt this kind of evidential strategy.

Our study begins with observations from the theoretical literature that suggest that evidentiality is encoded syntactically in languages like English and Swedish (Rogers 1973, Grimm 2010, Asudeh & Toivonen 2012). The relevant construction, given in (3), is typically referred to as the ‘copy-raising construction’. We will reserve the term ‘copy-raised construction (CRC)’ for cases like (3a) in which the matrix subject is a full DP. We will use the term ‘non-copy-raised construction (NCRC)’ for sentences like (3b) in which the matrix subject is what is typically described as an expletive. We will refer collectively to both versions of the construction with the term ‘perception verb similatives (PVS)’. PVSs are also formed with the predicates *seem* and *sound*, among others.

(3) Perception verb similatives (PVSs)

- a. John looks like he’s sick. *CRC (direct)*
- b. It looks like John is sick. *NCRC (direct or indirect)*

The CRC in (3a) requires the speaker to have perceived John directly (in addition to requiring that John appear sick). The NCRC in (3b), in contrast, is acceptable in a variety of situations: one in which the speaker has seen John, who appears sick (the direct situation); and another in which the speaker has not seen John but has instead seen evidence of John’s sickness (the indirect situation); for example a doctor’s note, or a desk strewn with tissues.

The evidential properties of PVS constructions are schematized in Table 1.

Table 1. PVSs and evidentiality

Evidential source	CRC (3a)	NCRC (3b)
Direct	ok	ok
Indirect	*	ok

According to this view, NCRCs are unmarked for evidentiality, while CRCs mark direct evidentiality (and are therefore only acceptable in a situation in which the speaker has direct evidence for the asserted proposition). While our study doesn’t rest on a particular theoretical analysis of these data, we will

briefly mention a recent account of PVSs, proposed by Asudeh & Toivonen (2012). They argue that PVS verbs assign to their matrix subjects a semantic role ‘PSOURCE,’ marking it as the source of perception for the asserted proposition. In CRCs, the result is that the subject of the asserted proposition (John in (3a)) is also claimed to be the source of the evidence for that proposition. In NCRCs, the matrix subject ‘it’ is a pronoun ranging over eventualities (not an expletive), and this denoted eventuality is marked as the source of perception. The pronoun can in principle refer to two different types of eventualities: an event in which the speaker directly perceives the referent of the embedded subject (e.g. John) satisfying the relevant property (a direct evidence scenario) or an event in which the speaker perceives some situation that entails the asserted proposition (an indirect evidence scenario). Thus, in contrast to CRCs, NCRCs are underspecified with respect to evidentiality.

The main goal of this paper is to draw on PVSs like those in (3) to provide a more precise insight into the acquisition of evidentiality. We begin by reporting the results of our adult felicity judgment task. These results provide support for the evidential nature of CRCs schematized in Table 1, as well as a baseline of comparison for children’s acquisition of PVSs. We then present the results of our acquisition study, which is based on an exhaustive examination of the corpora of 45 American English-speaking children in the Childes database (McWhinney & Snow 1985). We show that children as young as two behave like adults in their ability to correlate the syntax of these constructions with the type of evidence they have. For the sake of completeness, we end by reporting the results of a second production study we did on the spontaneous use of PVSs by adults in the Childes database – which provides additional support that children’s use of PVSs is adult-like, as well as information about the kind of input children get with respect to these constructions.

2. The acquisition of evidentiality

The acquisition findings have been fairly consistent across the various “evidential” languages (that is, languages like Turkish in which evidentiality is grammaticized in the morphology, but see Koring & de Mulder 2011 for a study of Dutch evidential verbs). The first noteworthy result is that children spontaneously produce evidential markers by age 2 to 3 (Aksu-Koç 1988; Papafragou et al. 2007). A second consistent finding is that direct evidentials appear earlier than indirect evidentials (Ozturk & Papafragou 2008; de Villiers et al. 2009). This is sometimes attributed to the increased cognitive difficulty of indirect evidentials which, according to Aksu-Koç & Slobin (1986), involves “the further complexity of making an inference... as compared to simply accessing an experienced event from memory.”

A further issue concerns the neo-Whorfian position that the acquisition of linguistic evidentiality facilitates the child’s conceptual understanding of evidence source and his non-linguistic source monitoring ability (Aksu-Koç et al. 2009). This hypothesis predicts that for children acquiring a language like

English in which evidentiality is neither grammaticized nor obligatory, reasoning about evidence source – and hence the semantics of evidentiality – should be delayed relative to children acquiring “true” evidential languages like Korean and Turkish.

By investigating PVSs in English, we test knowledge of evidentiality directly and avoid the polysemy problem. Moreover, our results speak to the issue of whether indirect evidentials are cognitively/linguistically more complex for the child and also to the neo-Whorfian idea that learning a language with obligatory morphologically encoded evidentiality enhances early reasoning about sources of information.¹

3. Adult on-line study

Before we present the acquisition study, we briefly describe an adult experiment in which we test Asudeh & Toivonen’s claims concerning the relationship between copy raising and evidentiality, as schematized in Table 1.

3.1 Procedure

Subjects (90 in all) were asked to help an English-language learner, Fola, perfect her use of English. They are told that Fola is near fluent, but needs help with the more subtle aspects of the language. The subjects are presented with various scenarios and Fola’s commentary about each scenario and then asked to indicate whether her comment is *okay*, *kind of weird*, or *weird*.² (These judgments were eventually converted to numerical scores for the purposes of analysis.)

The scenarios provided background information on the type of evidence Fola has for the proposition she asserts. They were differentiated based on four different criteria, given in (4).

¹ Jeschull & Roeper (2009) investigated the production and comprehension of the perceptual verb *look* as compared to *probably*, which marks speaker certainty, in children ages 4 to 6. They conclude that children distinguish evidentials from certainty markers by that age, though they are not yet fully adult-like. However, in discussing the evidential aspect of *look*, they do not differentiate between CRCs and NCRCs or between direct and indirect evidence source.

² The exact instructions are: “Fola is visiting the US in order to improve her English. She’s taken several English language classes and is pretty fluent, but she still needs practice with some of the more subtle aspects of the language. She’s asked you to help her by giving her feedback on her use of English. What follows will be descriptions of various scenarios, followed by a comment of Fola’s. After reading both, please indicate whether her comment, given the scenario, is OK, weird or kind of weird. You will not be timed, so take time to fully understand the scenarios and comments.”

- (4) (i) sensory source: whether Fola's evidence for the proposition is visual, auditory or hearsay;
- (ii) evidence type: whether Fola's evidence is direct (involves her directly perceiving the subject) or indirect (applicable to the visual and auditory but not the hearsay scenarios);
- (iii) predicate: whether the sentence contains *seem*, *look* or *sound*;
- (iv) syntax: whether the sentence is a CRC or a NCRC.

The combinations of these scenario parameters form 30 test questions. There were three of each type to make up 90 test questions in all. Questions were divided into blocks and each subject answered 15 test questions.

The example in (5) has a scenario that is 1) auditory 2) indirect 3) uses the predicate *sound*; and 4) is a NCRC.

- (5) *Fola and her son Milo live near a pig farm. Milo loves to play with the pigs when he has time and the pigs always squeal with joy when Milo visits them. One day Milo leaves the house after finishing his homework. Soon after, Fola hears the pigs making a lot of noise and she says: "It sounds like Milo visited the pig farm."*

It is auditory because Fola heard the evidence she has for suspecting that Milo visited the pig farm (the pigs' squealing). It's indirect because Milo is not the source of the noise, but instead Fola had to have inferred from the noise of the pigs to the likelihood of Milo visiting them.

3.2 Results

The results of a 2x2 mixed design ANOVA showed main effects of both syntax (CRC vs. NCRC) and evidence type (direct vs. indirect) ($p < .001$). Overall, subjects were more likely to accept NCRCs over CRCs and more likely to accept direct scenarios over indirect. Most importantly, we found a significant interaction of syntax and evidence ($p < .001$); while CRCs are acceptable in direct scenarios, they are absolutely unacceptable in indirect scenarios. Thus, the predictions of A&T's theory are largely borne out in our data.

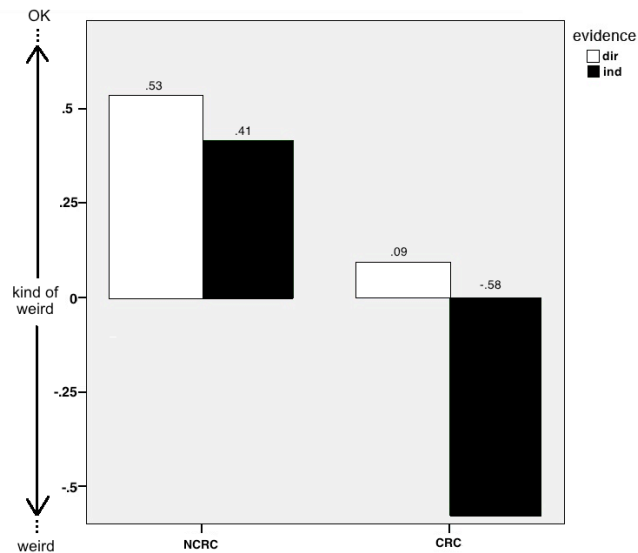


Figure 1: Means by evidence type and syntax.

4. Childes study

4.1 Subjects

Let's now turn to the acquisition results, which are based on various American English-speaking children in the Childes database (McWhinney & Snow 1985). Preliminary work showed that children did not produce the constructions of interest until age 2. We therefore limited our search to corpora with children between the ages 2 to 6, including those listed in (6).

- (6) Bates, Bernstein-Ratner, Bliss, Bloom 1970, Bloom 1973, Bohannon, Brent, Brown, Clark, Cornell, Demetras Trevor, Demetras Working, Evans, Feldman, Garvey, Gathercole, Gleason, Haggerty, Hall, Higginson, HSLLD, Kuczaj, MacWhinney, McCune, Morisset, Nelson, New England, Peter Wilson, Post, Providence, Sachs, Snow, Soderstrom, Suppes, Tardif, Valian, Van Houten, Van Kleek, Warren-Leubecker, Weist.

We found a total of 70 PVSs containing the verbs *look*, *seem* and *sound*.

4.2 Coding procedures

Each relevant utterance was coded for two factors: Syntax (CRC or NCRC) and Evidence (direct or indirect). The syntax coding was relatively straightforward: PVSs with full DP matrix subjects were coded as CRCs and sentences with expletive (or event-pronominal) subjects counted as NCRCs.

There were 13 cases in which the syntactic status was ambiguous (for example, many of the null subject sentences) and these were not included in our analysis.

To determine evidence type, two coders worked independently and relied on several contextual and grammatical cues, including the use of demonstratives in describing the topic; the proximity of the topic to the speaker; and the discussion before and after the copy-raising utterance. In (7) and (8) we provide an example of direct and indirect evidence situations; (9) is an example of an utterance that was excluded from the study because its evidence status was inconclusive.

(7) *Direct-evidence scenario* (Nat, 3;0)

ANG: give me the kitty cat.

ANG: thanks.

ANG: kitty+cat looks tired .

ANG: have you been a good kitty+cat?

CHI: look it .

CHI: he +...

CHI: **he looks like he's sleeping .**

CHI: **he looks like he's sleeping .**

ANG: all curled up .

In (7) the relevant utterance is the CRC *He looks like he's sleeping*. This was coded as a direct-evidence scenario for several reasons. Prior discourse, including the use of the second-person pronoun *you*, suggests that the cat is so close that the interlocutors are addressing it directly. And the comment that the cat is all curled up suggests that the interlocutors are looking at the cat.

(8) *Indirect-evidence scenario* (Mrktp 3;10)

CHI: nope <there's> [//] <they're> [/] they're closed mommy .

MOT: they're always closed and every time we get there they're closing huh?

CHI: I know (.).

CHI: **it looks like they're open to me.**

MOT: they might be.

MOT: as long as it's not Tuesday they'll be open.

MOT: is it Tuesday?

CHI: yep.

MOT: well then they're closed (.).

In (8), the relevant sentence, *It looks like they're open to me*, was coded as an indirect evidential. The discourse following the relevant utterance – including a weak epistemic modal and a clear pattern of inference regarding the asserted proposition – shows that the speaker and his mother are inferring about the status of the store, rather than perceiving its apparent openness directly.

(9) is a clear example of a PVS whose evidence type is completely unclear. The coders were unable to establish either the meaning of the sentence in this context or the child's evidence for it. Even the mother seems bewildered.

(9) *Unclear evidence source* (Sarah, 4;1)

CHI: what Nana?

MOT: Nana Fitzgerald.

ANN: xxx for a long time.

CHI: <the one> [/] (.) the one that died?

CHI: Uncle_Eddie died (.) the one?

MOT: yeah.

ANN: I forgot that Uncle Eddie died (be)cause **it seemed like he was cryin(g) when she was talkin(g).**

MOT: well.

Coders were able to determine the evidence type for the vast majority of cases from context and other linguistic cues. Several more examples of the children's direct and indirect evidentials are given in (10) and (11).

(10) *Direct*

a. Dat clay doesn't look like it's sticky, but it is. (Adam 4;9)

b. Now it's a Pooh truck, he looks like he's driving. (Ethan 2;9)

c. Well it looks like I got all the rabbits. (collecting rabbits) (Abe 3;2)

(11) *Indirect*

a. Look like the howl's been in your room. (unnamed 4;6)

b. Looks like there's another piece. (sees hole in puzzle) (HV1/TP 3;7)

c. But it seems like he's never coming. (Joe 5;4)

4.3 Results

In Table 2 we provide the frequency of each of the relevant verbs and age of first occurrence. We see that *look* far outnumbered the other two verbs and appears at a much younger age.³

³ A priori we might expect the copy-raising verb *seem*, which is neutral with respect to evidential source, to be acquired earlier than the semantically more restrictive *look* and *sound* (which require visual and auditory evidence, respectively). But this is not what we find. A possible explanation for the earlier appearance of the perceptual verbs (despite their more restrictive conditions of use) is that they do not involve syntactic raising (A-movement) while the raising verb *seem* does (see Asudeh & Toivonen 2012). There is considerable evidence that children do not allow A-movement with raising predicates such as *seem* until roughly age 6 (Hirsch, Orfitelli & Wexler 2007, 2008; Orfitelli 2012). It must be noted that the adults in our production study also showed the same preference for perceptual verbs over *seem*. We found 123 tokens of *look*, 15 of *sound* and 4 of *see* (Providence corpus), which may suggest a frequency effect as opposed to a syntactic one.

Table 2. Number and first occurrence of copy-raising verbs

	<i>Look</i>	<i>Sound</i>	<i>Seem</i>
Number (child)	55	3	12
Age, 1st occurrence	1;10	2;6	4;1

Table 3 shows the frequency of each Evidence type by age. We see that direct evidentials outnumber indirect evidentials by roughly 3 to 1, with directs decreasing over time. There were 3 cases in which it was not possible to determine the evidence source.

Table 3. Distribution of direct vs. indirect-evidence situations by age

<i>Age (years)</i>	<i>Direct N (%)</i>	<i>Indirect N</i>	<i>Total</i>
1-2	8 (88%)	1	9
3	15 (79%)	3	18
4	12 (70%)	5	17
5	13 (76%)	4	17
6-7	4 (67%)	2	6
Total	52 (78%)	15	67

Table 4 shows the syntactic patterns of different evidence types. Of the 70 utterances in our child corpora, 54 were unambiguous with respect to their syntax and evidence source.

Table 4. PVSs and evidence source in English-speaking children

Evidence	Syntax		Total
	CRC	NCRC	
Direct	21 (52%)	19 (48%)	40
Indirect	0	14 (100%)	14
Total	21	33	54

Of these the direct evidence situations are almost evenly split between CRCs and NCRCs and crucially, all the in direct-evidence situations are NCRCs. That is, we found zero instances of a CRC used (illicitly) in an indirect evidence-scenario. In short, the distribution is perfectly aligned with the adult system as it was schematized in Table 1. We performed a Chi Square test to determine the distribution of the syntax of PVSs across direct and indirect scenarios. The results are significant $X^2(1) = 12.02$, $p. <.001$ ⁴

⁴ 16 utterances could not be fully coded because either the evidence source could not be determined (3 cases) or because the syntax was unclear. Of the 13 syntactically unclear cases, 12 were uttered in direct-evidence situations and hence would be acceptable as either a CRC or NCRC. For example, the sentence *Sounds like she's making up her stories* could be either *She sounds like she's making up her stories* or *It sounds like she's*

Finally, in Table 5 we report the breakdown of direct evidentials into CRCs vs. NCRCs. What is noteworthy is that children use the marked copy raising construction beginning at age 2, that is, right from the time they first use PVSs.

Table 5. Number (percentage) of direct CRCs and NCRCs by age

Age (years)	Direct		Total
	CRC	NCRC	
2	3 (38%)	5 (62%)	8
3	7 (64%)	4 (36%)	11
4	7 (70%)	3 (30%)	10
5	4 (40%)	6 (60%)	10
6	0	3 (100%)	3
Total	21	21	42

4.4 Adult Childes Study

We also looked at adult spontaneous production data in order to see what kind of input children receive with respect to PVSs. For this we coded a single corpus – the Providence corpus (Demuth et al. 2006) – and found 142 instances of adult PVSs. These data are given in Table 6:

Table 6. PVSs and evidence in adult input (Providence; Demuth et al. 2006)

Evidence	Syntax		Total
	CRC	NCRC	
<i>Direct</i>	45 (46%)	52 (54%)	97
<i>Indirect</i>	0	15 (100%)	15
<i>Total</i>	45	67	112

Of the unambiguous adult utterances the direct-evidence situations are not quite evenly divided between CRCs and NCRCs. Importantly, all of the indirect-evidence situations were NCRCs. These results are significant by Chi Square, $X^2(1) = 11.633$, $p < .001$. In short, the adult production data align with the felicity judgment results of our on-line study (both sets of data support A&T's claims), and are mirrored by the child production data in table 3.

making up her stories. The single remaining ambiguous example (*He says it seems like it's Christmasy weather...*) was uttered in an indirect evidence scenario, and hence would only be a counterexample if it was clear that it was a raised construction with coreferring subjects (instead of an unraised construction).

4.5 Discussion

What conclusions do we draw from these results? First, and most importantly, children behave like adults in their ability to correlate the syntax of PVSs with the type of evidence they have (Table 4). Moreover, because the polysemy issue does not arise in English as it does in “evidential” languages, we can be more confident that we are examining the acquisition of the semantics of evidentials rather than tense, aspect or some other feature of the language.

Table 4 also shows that non-copy-raising (NCRC) sentences are somewhat more frequent overall than copy-raising (CRC) sentences. This is also true of the adult input, as shown in Table 6.⁵ For both children and adults, roughly 60% of PVSs are NCRCs. This result may be unsurprising given that NCRCs are, unmarked with respect to evidentiality and so acceptable in both direct- and indirect-evidence situations.

However, if we focus on the direct evidentials in Table 4, we see that children use CRCs (52%) somewhat more often than NCRCs (48%), and that even the 2-year olds use the CRC nearly 40% of the time, as shown in Table 5. The fact that even the youngest children use the marked PVS supports our claim that they have acquired the syntax of evidentiality and are not just relying on a default strategy of some sort. Nor are they simply matching input frequency. As Table 6 shows, in the input data direct evidentials occur slightly more often in the non-raised construction than in the raised one.

Another interesting finding is that despite the non-obligatory, non-grammaticalized nature of evidentiality in English, the children in our study show no production delay relative to children acquiring evidential languages. They use the CRC – which is marked for (direct) evidentiality – from age 2 (Table 5). This argues against the neo-Whorfian view that language-specific properties influence the age at which children acquire the conceptual understanding of evidence source (and hence the semantics of evidentiality). In other words, early attention to evidence source does not depend on having a language with obligatory, morphologically encoded evidentiality. Indeed, our results are in line with claims by Papafragou et al. (2007), Gleitman & Papafragou (2005), and Koring & De Mulder (2011) who argue that the conceptual framework for marking linguistic evidentiality is in place at a relatively young age and not subject to much language-specific variation.⁶

⁵ For the adults in our experimental study, NCRCs were in every case more acceptable than their CRC counterparts, regardless of evidence type. This is reflected in the significant effect of syntax. Grimm (2010), examining canonical raising structures, suggests that the matrix subject in canonical raising structures, in contrast to the matrix subjects of their non-raised counterparts, are topics. Similar independent semantic differences between CRCs and NCRCs might explain this relative prevalence of NCRCs.

⁶ In this paper we report on production data, which does not speak directly to whether the children have knowledge of other inds in the way that comprehension data do. However, if the linguistic marking of evidentiality – whether syntactic or morphological – is acquired on the basis of input, as seems reasonable, then children must understand the

A final result concerns what we call ‘the cognitive primacy of direct evidentiality’, which is the idea that children acquire direct evidentials earlier because reporting on direct perception is “simpler” in some intuitive sense than reports based on either inference or hearsay (Ozturk & Papafragou 2008; de Villiers et al. 2009; Courtney 2008). Table 3 shows that the children in our study do indeed produce direct evidentials before indirect ones just like children acquiring morphologically encoded evidentials in Korean and Turkish. With only one possible exception (from a child whose age is not clearly specified) direct evidentials in English occur at around 2;0 while indirect evidentials first appear at 3;0. Thus, our results are consistent with the idea that direct evidentials are cognitively simpler in some sense, but it must also be noted that in terms of overall frequency, direct evidence-situations vastly outnumber indirect-evidence situations for both children and adults (Tables 4 and 6). So the earlier appearance of direct evidentials could be an effect of input frequency. One thing that seems certain, however, is that it’s not the case that direct evidentials in English are acquired earlier because they are syntactically simpler, involving (as they often do) raising and/or copying operations.

5. Conclusions

In this study we investigated the acquisition of evidentiality in English ‘perception verb similatives’ (PVS) with an eye towards addressing what we dubbed the “polysemy problem.” Overall, our results show (i) that as far as production is concerned, English-speaking children are adult-like from a strikingly early age, and (ii) that their course of development is not notably different from children acquiring languages with morphologically encoded evidentiality such as Turkish. In these languages it has been observed that children’s performance in experimental tasks lags behind their naturalistic production by about a year or so (e.g. Aksu-Koç 1988; Papafragou et al. 2007), in both elicited production and comprehension, but is especially pronounced in comprehension. We are therefore following up on our production study with a comprehension task of English PVSs (a felicity judgment task) in the hope that these results will help inform the studies reported on here.

References

- Aikhenvald, A. 2004. *Evidentiality*. Oxford University Press.
Aksu-Koç, A. 1988. *The acquisition of aspect and modality*. Cambridge.
Aksu-Koç, A. and Slobin, D. 1986. A psychological account of the development and use of evidentials in Turkish. In Chafe, W. and Nichols, J., editors, *Evidentiality: the linguistic coding of epistemology*, 159--167. Ablex.

perspective of the people providing the input. In this sense, then, production data do provide indirect evidence bearing on theory of mind issues.

- Aksu-Koç, A., Ögel-Balaban, H., & Alp, İ. E. (2009). Evidentials and source knowledge in Turkish. *New Directions for Child and Adolescent Development* (125), 13-28.
- Asudeh, A. and Toivonen, I. 2012. Copy raising and perception. *Natural Language and Linguistic Theory*. 30:2, 321--380.
- Courtney, 2008. Child production of Quechua evidential morphemes in conversations and story retellings. Submitted ms.
- de Villiers, J., Garfield, J., Gernet-Girard, H., Roeper, T., and Speas, M. (2009). Evidentials in Tibetan: acquisition, semantics and cognitive development. *New directions for child and adolescent development*, 125:29--47.
- Demuth, K., Culbertson, J. & Alter, J. 2006. Word-minimality, epenthesis, and code licensing in the acquisition of English. *Language & Speech*, 49, 137-174.
- Fitneva, S. 2008. The role of evidentiality in Bulgarian children's reliability judgments. *Journal of Child Language* 35, 845-868.
- Gleitman, L. & Papafragou, A. 2005. Language and thought. In Holyoak, Keith J. & Morrison, R. G. (eds). *The Cambridge Handbook of Thinking and Reasoning*, pp. 633-661. Cambridge University Press, NY.
- Grimm, S. 2010. An empirical view on raising to subject. In Weirich, M. and Jannedy, S. (eds.) *ZASPiL* 25, 83-110.
- Hirsch, C., Orfitelli, R., & K. Wexler. 2008. The Acquisition of Raising Reconsidered. In A. Gavarro and M J. Freitas (eds.) *Proceedings of the Conference on Generative Approaches to Language Acquisition*. Cambridge, UK: Cambridge Scholars Press.
- Hirsch, C., Orfitelli, R., & K. Wexler. 2007. When *seem* means *think*: the role of the experiencer-phrase in children's comprehension of raising. In A. Belikova, L. Meroni, and M. Umeda (eds.) *Galana 2 - Proceedings of the Conference on Generative Approaches to Language Acquisition - North America 2*. Somerville, MA: Cascadilla Press
- Izvorski, R. 1997 The Present Perfect as an Epistemic Modal. in A. Lawson and E. Cho (eds.), *SALT VII* CLC Publications. Cornell University.
- Jeschull, L. & T. Roeper. 2009. Evidentiality vs. certainty: Do children trust their minds more than their eyes. GALANA Proceedings. Somerville, MA: Cascadilla Press.
- Koring, L. & de Mulder, H. 2011. Understanding different sources of information: conceptual and linguistic development. *Proceedings of the Tenth Tokyo Conference on Psycholinguistics*, 143--166. Hituzi Syobo Publishing.
- McWhinney, B. & C. Snow. 1985. The Child Language Data Exchange System. *Journal of Child Language*, 12, 271--295.
- Orfitelli, R. 2012. *Argument intervention in the acquisition of A-movement*. PhD Thesis, UCLA.
- Ozturk, O. & A. Papafragou 2008. The acquisition of evidentiality and source monitoring. *BUCLD* 35; 368--377.
- Papafragou, A., Li, P., Choi, Y., & Han, C. 2007. Evidentiality in language and cognition. *Cognition*, 103: 253--299.
- Rogers, Andy. 1973. *Physical perception verbs in English: A study in lexical relatedness*. PhD dissertation, UCLA.
- Slobin, D. and Aksu-Koc, A. 1982. Tense, aspect and modality in the use of the Turkish evidential. In P. Hopper (ed.) *Tense-Aspect: Between Semantics and Pragmatics*, 185--200. Philadelphia: John Benjamins.