21. NARRATIVES IN CHILDREN WITH WILLIAMS SYNDROME: A CROSS LINGUISTIC PERSPECTIVE

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INTRODUCTION

Over the last years there have been long chats and delicious meals in Ruth's company. The conversations ranged across books, family, culture, and cooking, but always included discussions on the nature of language and its development. Ruth's insights invariably struck a resonant chord. Our contribution to this festschrift is intimately tied to Ruth's encouragement and guidance in cross-linguistic narrative studies and our fascination with the interplay of affect and language. In this chapter, we use narratives to explore the intersection of these two communicative systems, language and affect in a special group, children and adolescents with Williams Syndrome, who have grown up in three different linguistic communities: American English, French and Italian.

WILLIAMS SYNDROME

Williams Syndrome (WS) is a rare genetically based disorder characterized by a distinctive medical, psychological, neuropsychological and neuroanatomical profile which are due to a deletion of one copy of about 20 genes on chromosome 7 including Elastin, Lim1kinase, Syntaxin1a among others (Ewart et al., 1993; Frangiskasis et al., 1993; Botta et al., 1999; Korenberg et al., 2000, 2003). One of the most striking aspects of individuals with WS is the distinctive cognitive profile they present. Moderately retarded, with IQs mostly in the 50–70 range, their clear deficits in visuo-spatial,

planning and numerical/arithmetic abilities stand in contrast to their relatively spared linguistic abilities, extreme sociability and positive affect (Bellugi, Lichtenberger, Jones et al., 2000; Vicari, Bellucci, Carlesimo, 2001; Doyle, Bellugi & Korenberg, 2002; Jones, Bellugi, Lai et al., 2000; Atkinson, Shirley, Braddick et al., 2001; Vicari, Caselli, Gagliardi et al., 2002; Gianotti & Vicari, 1999). Relying on these two communicative systems, language and affect, individuals with WS are known to charm, flatter and socialize with any available adult. The goal of the present paper is to look at the interface of these systems in this unusual population by examining narratives from children with Williams Syndrome in three different linguistic environments: American English, French and Italian.

NARRATIVES

Labov and Waletsky (1967/1997) first introduced the notion that narratives included both referential and evaluative functions. From their perspective, the *referential* aspect includes information about the characters and events; it is what moves the story forward, i.e. the plot. In contrast, the *evaluative* aspect of narratives gives sense to the story, 'the evaluation of a narrative is defined by us as that part of the narrative which reveals the attitude of the narrator towards the narrative by emphasizing the relative importance of some narrative units as compared to others" (1967, p. 37). Whereas Labov and Waletzky initially focused on evaluative clauses and noted semantically defined evaluation, Peterson and McCabe (1983) noticed that children sprinkled evaluative devices throughout clauses employing both lexical and phonological means. Thus, evaluative information can be conveyed or packaged in several ways; syntactically, as in relative clauses, for example, which commonly function as asides to comment on a person's behavior or character (*you know, that one who will do anything to win*); lexically, for example, by using intensifiers, modals or hedges (*No, he wouldn't really do that, would he?*) to reflect speaker attitude and para-linguistically, by emotional facial expression, gesture and affective prosody which can effectively convey narrator attitude, or reflect the inferred emotions of a character. Since the seminal article of Labov and Waletzsky in 1967, researchers have considered aspects of evaluation in adult discourse and texts (e.g., Labov, 1984; Biber & Finnigan, 1989) and from a developmental perspective (e.g., Peterson & McCabe, 1983; Reilly, Klima, & Bellugi, 1990; Bamberg & Damrad-Frye, 1991; Reilly, 1992; Berman & Reilly, 1995; Berman, 1993, 1997; Losh, Bellugi, Reilly et al., 2000); and the topic has been extensively revisited in the recent tribute to Labov that appeared in 1997 (special issue edited by Bamberg, 1997). From this perspective, narratives, especially the use of evaluation, present an opportunity to investigate the intersection of language, sociability and affect which are apparent strengths of children and adolescents with Williams Syndrome. The issue that we address today is the degree to which this quality, noted in American studies, is evident in other cultures and linguistic environments, that is, how pervasive is the use of evaluative language in Williams Syndrome despite major differences in languages and cultures?

THE DATA

In all three countries, children with Williams Syndrome and their typically developing (TD) peers were presented with the 24-page wordless picture book: *Frog, where are you?* (Mayer, 1969) and asked to tell the story to the experimenter. The story book is about a boy and his dog and their search for a missing pet frog. Because it contains no words and provides a rich context for language production, this picture book has been used extensively in cross-linguistic work (Berman & Slobin, 1994) and across typically and atypically developing populations (e.g., Reilly et al., 2004; Losh et al., 2000). In the United States, data were collected as part of larger projects at the Project in Cognitive and Neural Development at the University of California, San Diego and The Salk Institute for Biological Studies in San Diego; in Italy, the data were gathered in collaboration with the Ospedale Bambino Gesù in Santa Marinella (Rome); and in France, in children's homes through the Williams Family Associations and the Laboratoire, Langage et Cognition (LaCo, Université de Poitiers-CNRS).

Narratives in English from children with WS

In our past studies we have looked at the narratives of children and adolescents with WS in English (Losh et al., 2000, Reilly et al., 1990, Reilly et al., 2004, Kreiter et al., to appear), and the developmental profile that emerges is one of prolific talkers; with a somewhat delayed, but continuing mastery of English morphology and syntax in the face of more impoverished narrative structure (Losh et al., 2000; Reilly et al., 2004). For example, data from 35 children with WS (ages 4–12) and 70 chronologically age matched typically developing children is shown below. Using the coding scheme adapted from Reilly, Bates, and Marchman (1998), Figure 1 compares story length between children with WS and their TD control group whereas Figure 2 demonstrates that children with Williams syndrome make significantly more morphological errors than their typically developing age peers.

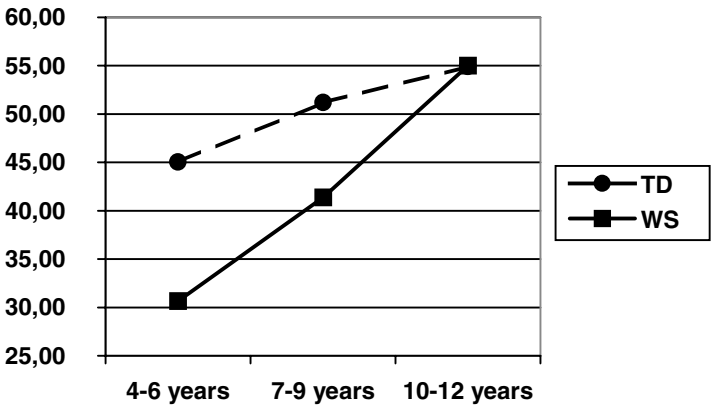

Figure 1. American group: Story Length: number of propositions.

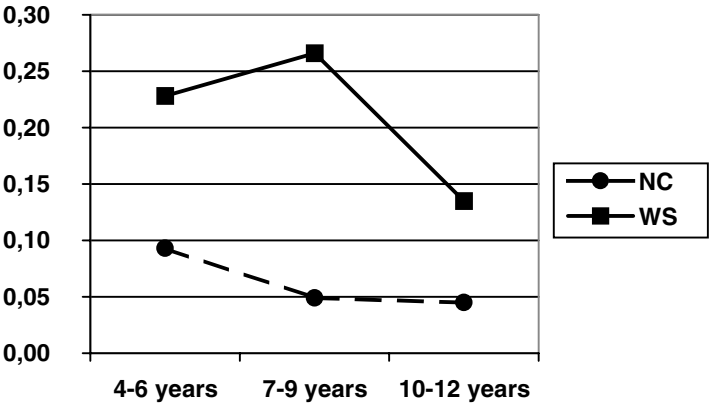

Figure 2. American group: Proportion of morphological errors.

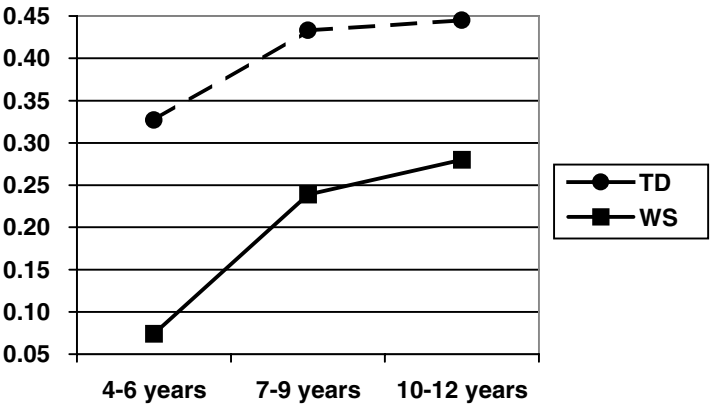

Figure 3. American group: Frequency of complex sentences.

An additional measure of language development is the use of complex sentences. Here in Figure 3 we show the frequency of complex sentences with respect to the number of propositions in the overall story. Similar to the typically developing children, these same children with WS increase their use of complex syntax with age, but the WS group progresses significantly more slowly than the control group.

However, in contrast to this developmental lag vis-a-vis the acquisition and use of morphosyntax, one of the most striking aspects of narratives told by WS children is the frequent and pervasive use of what we have termed social evaluation. That is, evaluative devices designed to engage and maintain the listener's attention, such as

Table 1. Examples of social evaluation from English speaking children with Williams Syndrome

INTENSIFIERS
—while the boy and the dog are sound asleep
—suddenly the dog was falling, falling down down on the ground
—and the boy searched and searched and searched
AUDIENCE HOOKERS
—gadzooks!
—what do you know? The frog family!
—and lo and behold. Some frogs came out of the bushes
—The boy and the dog fall down into the swamp, and they almost drownded!
—But, phew! (signalling relief), it was just a little bit swampy
CHARACTER SPEECH
—he said "goodbye" and so did the frogs, "ribbet"
—the boy went "shh, I'll look over this whole log and see if I can find my frog"
—he looked, and he said "wow, look at these, a female and a male frogs and also lots of baby frogs

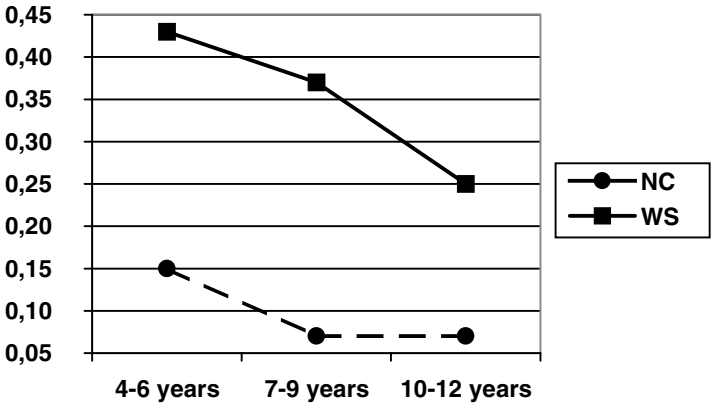

Figure 4. American group: Proportion of social evaluation per proposition.

the use of character voice, intensifiers and what we have called 'audience hookers,' e.g., exclamations, sound effects and rhetorical questions. Examples from stories from children with Williams Syndrome are shown in Table 1.

As can be seen in Figure 4, the WS group recruits these social evaluative devices significantly more frequently than their typically developing peers.

Morphosyntactic development in this group is quite variable, with some children in the normal range and others significantly below (Losh et al., 2001; Reilly et al., 2004), however the use of social evaluation in their narratives is significantly higher than controls for every single subject that we have studied (Losh et al., 2000; Reilly et al., 2004). This social-linguistic profile appears to reflect a particular aspect of the social nature of individuals with Williams Syndrome. One characterization of this

tendency, gleaned from a number of studies, is that individuals with Williams have an appetitive drive for approaching strangers (Jones et al., 2000; Bellugi et al., 1999). Aspects of this unusual sociability are apparent as early as infancy in children with Williams syndrome, for example, babies with WS appear to be fascinated with others' faces, often preferring to gaze at the experimenter rather than play with toys. But our studies were conducted in only one cultural setting, and thus raise the question: how pervasive is this profile of exuberant sociability? Will our findings generalize to children with Willliams Syndrome who are raised in other cultural environments? Is hypersociability a hallmark of this genetically based syndrome?

Narratives in Italian from children with WS

Our second group of children are Italians, 17 children with WS (ages 10–16) and their mental age matched typically developing peers. Italian has been categorized as 'high-gesture' (Kendon, 1995), that is, a culture that frequently recruits gesture in their social interactions, and in addition to syntactic, lexical, and paralinguistic means, Italian also signals evaluative and affective distinctions morphologically with suffixes conveying 'little' 'intensely' or 'nasty'. For example, a boy is *un ragazzo*, a nasty boy is *un ragazzaccio*, a little boy is *un ragazzino* and a nasty little boy is *un ragazzinaccio*. To give a taste of the nature of children's use of social evaluation in Italian, Table 2 includes some examples from the frog stories of the Italian children with Williams Syndrome.

Table 2. Evaluation in stories from Italian children with WS

Allora c'era una volta un bambino che vedeva la ranocchietta e il cagnolino, che lo stava guardando . . .
Then once upon a time there was a boy who saw the little pretty frog and the little dog, who was looking at him . . .
mamma! Un castoro gli ha, che le mordicchia e gli dà bacino.
Mom! A beaver has him. . . , who bites her and gives her a little kiss
Trovano un piccolino.
They found a little bitty one.
Oddio (tono allarmato), a un certo punto il cane salto e rompe il baratollo.
Oh, my God! (anxious tone), suddenly the dog jumped (past) and break (present) the jar
Tutti le rane vogliono andare nel mare.
All (masculine) the frogs (feminine) want to go in the see
Questo rana simpatiche!
This (masculine) nice (plural) frog (feminine, singular)
Perché c'erano molti arrabbiati.
Because there was many (who were) angry
Qui vedono finalmente la rana.
Here they see, at last, the frog
Il bambino chiama la rana continuamente.
The boy calls continuously the frog
Si stava quasi addormentando.
He was nearly falling asleep
Evviva le abbiamo trovate.
Hooray! we found them!
E poi c'è il gufo che sta così triste.
And then there is the owl that is so sad

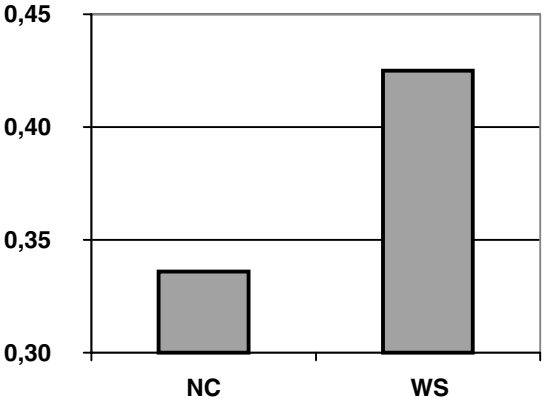

Figure 5. Italian group: Proportion of social evaluation per proposition.

Table 3. Evaluation in stories from French children with WS

Tiens!
Hey!
regarde!
Look!
le garçon dit "mince le bocal va être cassé"
The boy said, "oh no! the jar is broken"

Given the richness of forms in Italian and the frequency of gesture, one might ask if the use of social evaluation or affective language in Italian children with Williams Syndrome is very similar to that of typically developing children, that is, whether all the Italian children rely heavily on social evaluation.

As we might have predicted, the Italian children and adolescents with WS show the same proclivity to use social evaluative devices (see Figure 5) in their stories as did the American group with WS. Perhaps, more surprising, however, this was not the case for the group of typically developing Italian children who look more like their American counterparts. In both cultural environments, the children with Williams Syndrome far outstripped their typically developing peers in the use of affective language.

Narratives in French from children with WS

Our third group is seven children and adolescents (ages 6–17) with Williams Syndrome and their chronological age matched typically developing peers who are growing up in France. As a comparison to the English and Italian data, several examples of social evaluative devices from the French stories are shown in Table 3.

When we look at the use of evaluation in the French group, (Bernicot et al., 2002), we find that the WS group uses significantly more social evaluation than the control

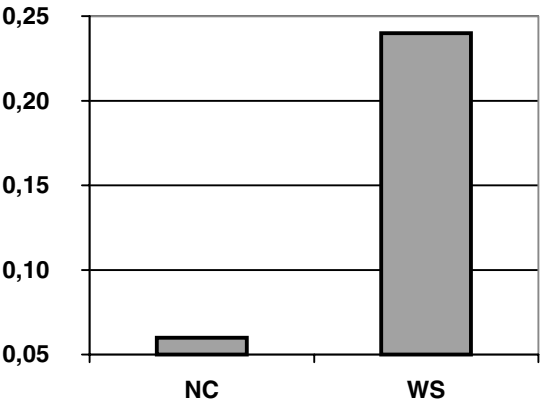

Figure 6. French group: Proportion of social evaluation devices per proposition.

group (see Figure 6). These findings for French are in line with those from English and Italian. That is, similar to the American and Italian children with Williams, the French children with WS also use significantly more social evaluation than their typically developing peers.

Thus, when we look across the three groups of children and adolescents with Williams, all are significantly more socially expressive than their own control group. Nonetheless, as seen in Figure 7, the French children with Williams use less evaluation overall than the American group who in turn uses less overall than their Italian counterparts.

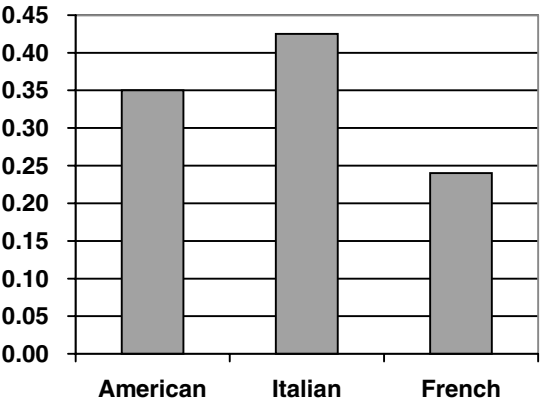

Figure 7. Proportion of social evaluation in stories from American, Italian and French children and adolescents with Williams Syndrome.

These comparative results suggest that in spite of the clear propensity of individuals with WS to recruit high levels of social evaluation, the nature of the culture and the cultural conventions for demonstrating sociability and conveying emotion are influential in how the 'hypersociability' of children and adolescents with Williams Syndrome will be expressed.

SUMMARY

In this short chapter we have used narratives as a context to explore the intersection of affect and language in children and adolescents with Williams Syndrome to better understand the phenotype and how cultural conventions might modulate its expression. It appears that in spite of the culture, and in spite of the resources of the language, or lack thereof, children and adolescents with Williams Syndrome are characterized by their frequent and extensive use of social evaluation in their stories. Given this persistent profile across different cultures and languages, this atypically expressive use of language in narratives may well be a 'marker' of the WS phenotype; it is also intriguing with respect to the contribution of genes to neural systems underlying social behavior (Doyle et al., 2004). However, it is also clear, that the form and intensity of Williams' social behavior is influenced by the individual culture's display rules and social conventions for expressing sociability. And so once again, narratives have proven to be a productive tool to discover more about language development and language use; the stories have also provided us with new insight into the phenotype of Williams Syndrome.

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