

# A corpus-based study of agrammatic aphasia: new evidence for the potential prominent part played by adaptive strategies in these patients' oral production

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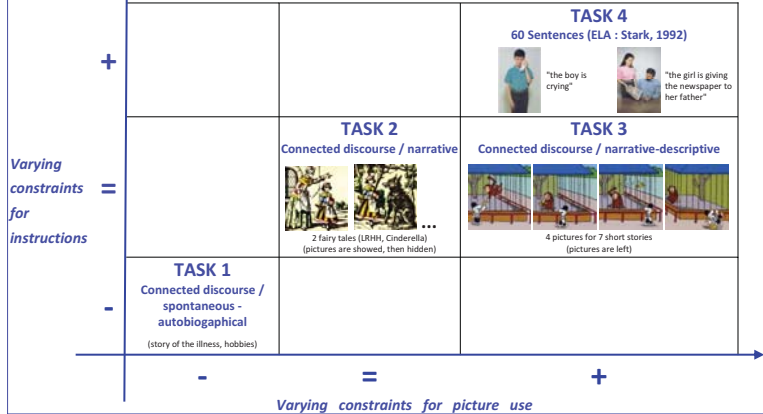
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**1. Introduction** We investigate the plausibility of "adaptation theory" in oral agrammatic production by means of large and systematic corpora study. The hypothesis of agrammatism as an adaptive behaviour is tested (Nespoulous, 2000 ; Kolk et al., 1990).

**2. Objective** Focus on across-tasks variability (see Hofstede and Kolk, 1994) suggests that agrammatic (non-fluent) speakers adapt linguistic forms to be encoded in relation to varying external constraints.

**3. Method** 4 Production tasks with gradual contrasts in instructions + picture use. More or less spontaneous vs. elicited speech is expected.



**4. Corpora Analyses Procedure : QPA** French data have been transcribed and analyzed on the basis of Saffran et al.'s Quantitative Production Analysis procedure (1989), taking into account linguistic specificities of French :

6 agrammatic patients with left hemisphere stroke involving Broca's area (5 to 6 hours of speech data) + 9 controls (2 hours of speech data)

**FRENCH SPEECH DATA**

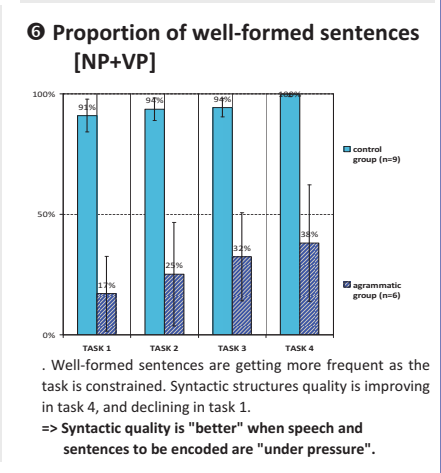
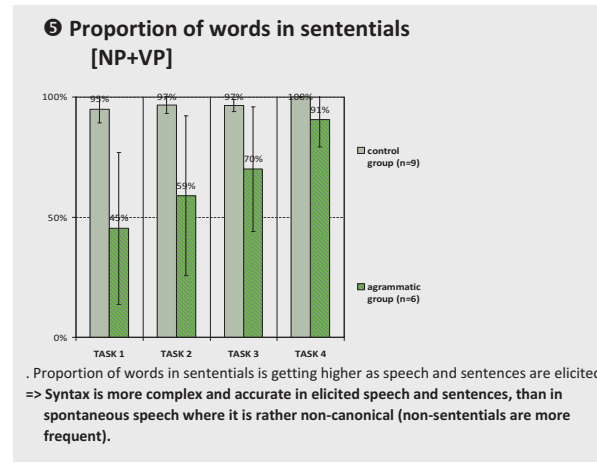
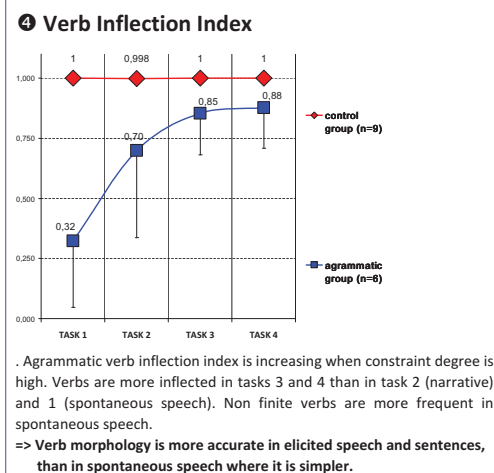
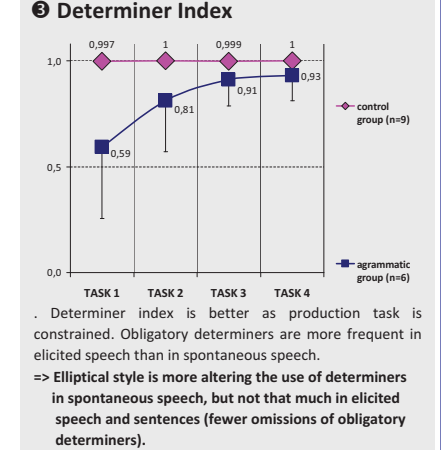
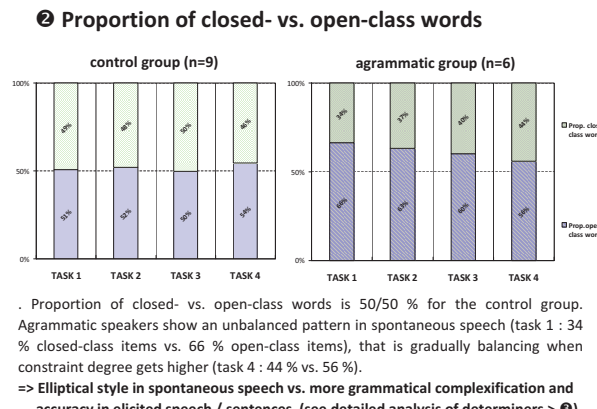
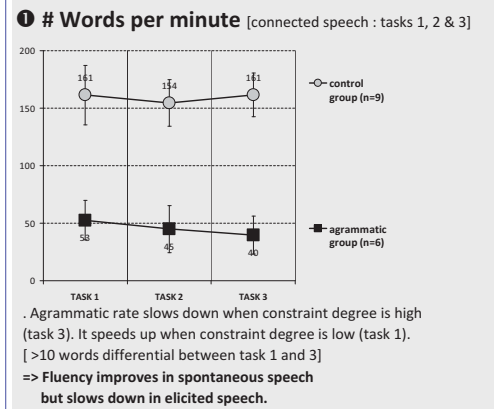
1	SES_aptia	adieu Num (1) le maximum euh (8) vient vient non
2	SES_aptia	aller le chapeau rouge
3	SES_aptia	Num (5) l'ensemble le forêt pour le rencontrer le grand-père
4	SES_aptia	euh (5) dans la peinture alors je suis pas du tout du
5	SES_aptia	le bébé euh (1) euh
6	SES_aptia	de l'homme (7) le euh le euh aller (6) dans le euh (6) le grand-père grand-père
7	SES_aptia	Num (1) le coup euh euh (13) n- s- Stopper non ou
8	SES_aptia	le grand-père (5) en- euh (2) le euh (2) ou a l'appelle (8)
9	SES_aptia	

**RESULTS**

Corpora analyses conducted on linguistic variables, such as :

- > **FLUENCY** (# wpm, # words, MLU, ...)
- > **MORPHOLOGY** (morpho-lexical aspects : # open- vs. closed class words, # determiners, # prepositions, verb inflection, ...)
- > **SYNTAX** (# sententials [NP+VP] vs. non-sententials, # words in sententials, ...)
- > **DISCOURSE** (# particles, # utterances, ...)

## 5. Selected Results



## 6. Summary

- (i) **Adaptive behaviour** is an essential feature of **agrammatic speech** : **flexibility** and **across-tasks variability** when encoding linguistic output are confirmed through a large amount of speech data. "**Ellipsis**" ("preventive adaptation") is rather observed in **spontaneous speech**, whereas **elicited speech** is more **complex** and **accurate** in terms of morphology and syntax.
- (ii) The **fluency drop** observed in elicited speech is a result of longer pauses and self-interruptions: this may be due to **higher processing** or **reflexive demands** to encode the target forms required by the instruction and the use of pictures.
- (iii) The **intervention of monitoring** (i.e., attention is focused on the form to encode) might be responsible for the **variability** of agrammatic performance.

## References

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