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## Why look at collocations?

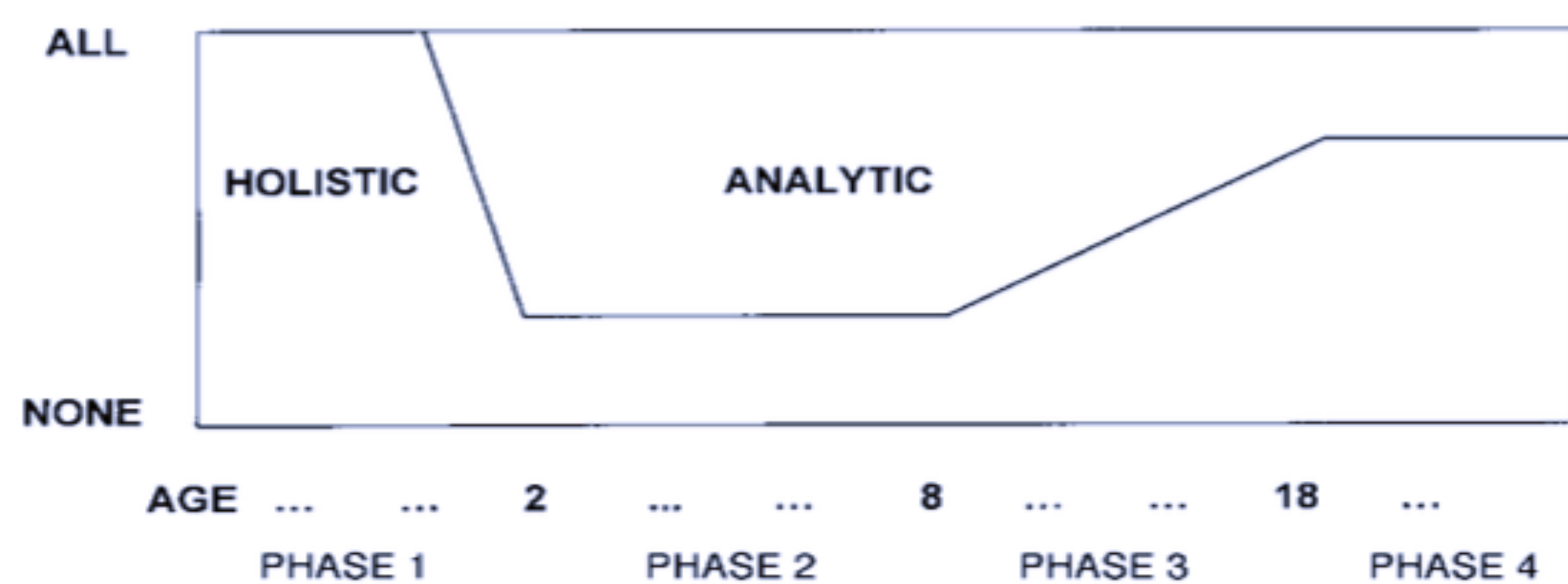
- 1) A collocational assessment could provide a behavioural measure of L2 exposure.
- 2) We can use a collocational assessment to determine if L2 children are learning holistically or analytically.

## Collocations and exposure

Collocations are, to a large extent, arbitrary. For example, why do we say *fish and chips*, and not *chips and fish*? Though there are constraints, e.g. in binomial expressions the longest word comes second (*men and women*), these are weak and often in conflict with each other (Benor & Levy, 2006). This relative arbitrariness is a particular characteristic of collocations compared to other linguistics domains (syntax, morphology, the lexicon). Because collocations are relatively arbitrary, we can only learn them by encountering them. Therefore knowledge of collocations should be closely linked to exposure. A behavioural measure of exposure may be useful given the potential unreliability of questionnaires

## Collocations and holistic learning

Many researchers have focused on the relationship between analytic and holistic processes. According to usage-based theories, children acquiring an L1 initially learn holistically, acquiring a large repertoire of formulaic utterances, but then proceed to an analytic stage where they break down these utterances to extract syntactic regularities. However, L2 learners are older when exposed to the L2, and therefore bypass this early holistic stage. According to Wray and Perkins (2000), children switch to a strongly analytic phase in their third year, and switch gradually to a mixed holistic / analytic mode from the age of 8



If the L2 children are in the analytic phase then we would expect them to be less aware of collocations. In addition, we would expect a reduced association between collocational knowledge and syntactic abilities, as they have not passed through a holistic phase in order to develop their grammatical knowledge.

## Research questions

- (1) **Testing the role of exposure;** we predicted poor collocational abilities in the L2 children. We expected a strong association with a measure of exposure derived from questionnaires.
- (2) **Testing analytic learning;** we predicted poor collocational abilities and a weak association between collocational abilities and syntax

## Method

### Participants

Group	N	Age	BPVS raw	BPVS ss	TROG blocks	TROG ss	Coll. Task
Mono-lingual	34	6;3 (2.7)	94.0 (13.8)	98.3 (10.7)	12.1 (3.4)	105.6 (15.3)	34.7 (5.3)
English as L2	26	6;2 (5.4)	73.1 (12.1)	86.3 (8.2)	6.6 (3.0)	82.0 (13.8)	25.6 (4.8)

Figure 1 - Performance on language assessments as a function of group (monolingual versus L2 learners)

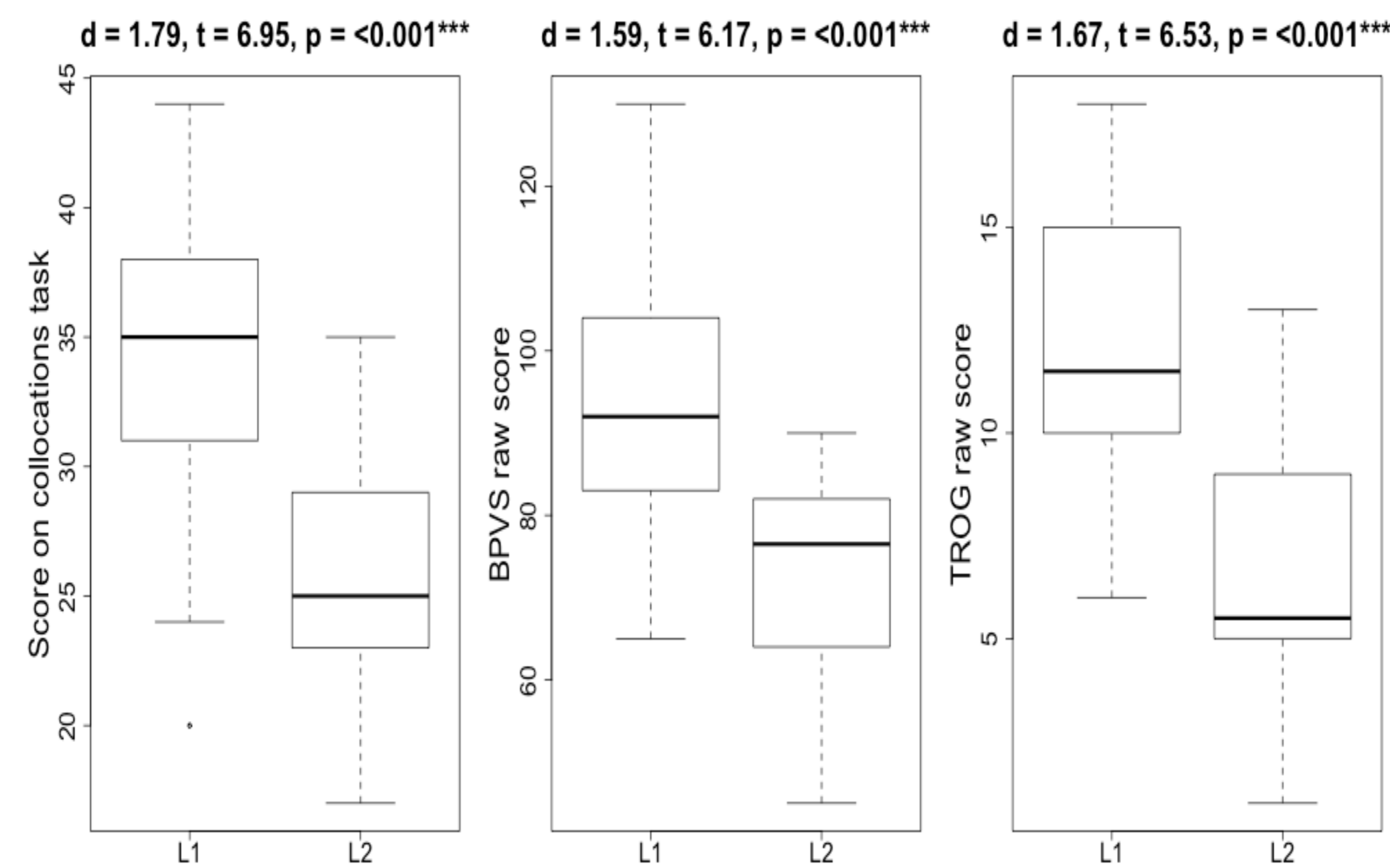
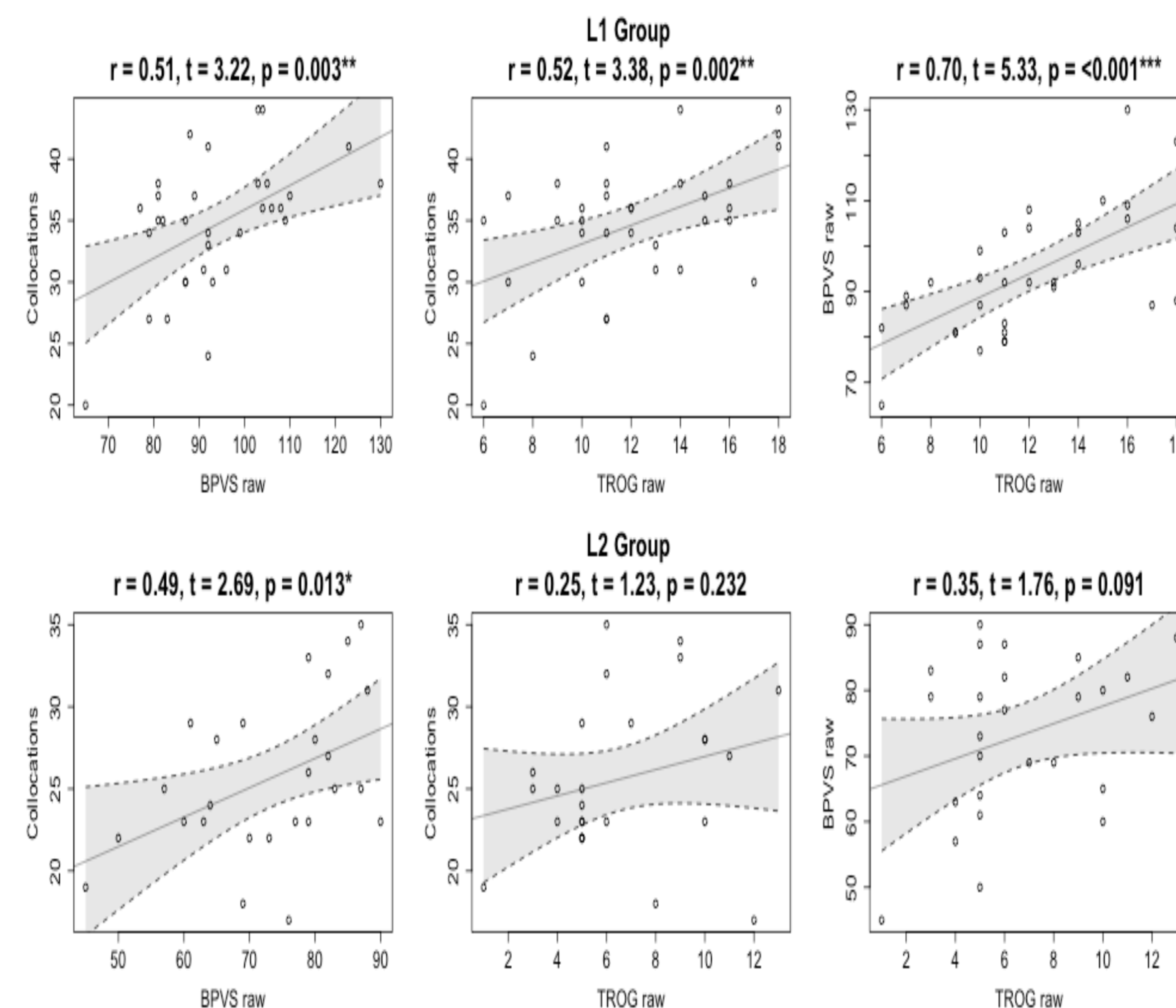


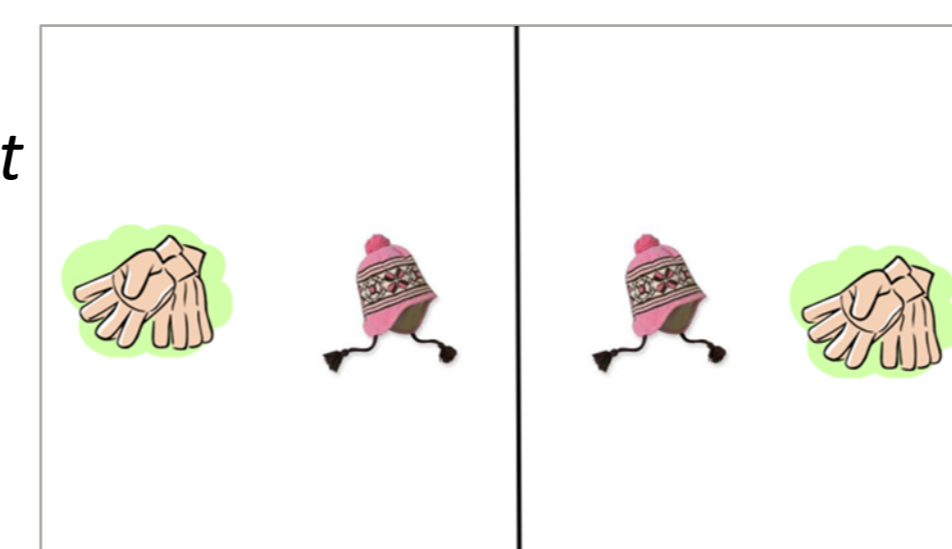
Figure 2 - Relationship between language assessments in each group



## Collocations task

Children were presented with two phrases, and had to say which sounded "better". The collocations were;

- (1) Binomials, e.g. *hat and gloves / gloves and hat*
- (2) V + N, e.g. *do damage / make damage*
- (3) V + Adj, e.g. *get angry / get happy*
- (3) Adj + N, e.g. *hard worker / hard swimmer*
- (4) Similes, e.g. *as good as gold / diamonds*



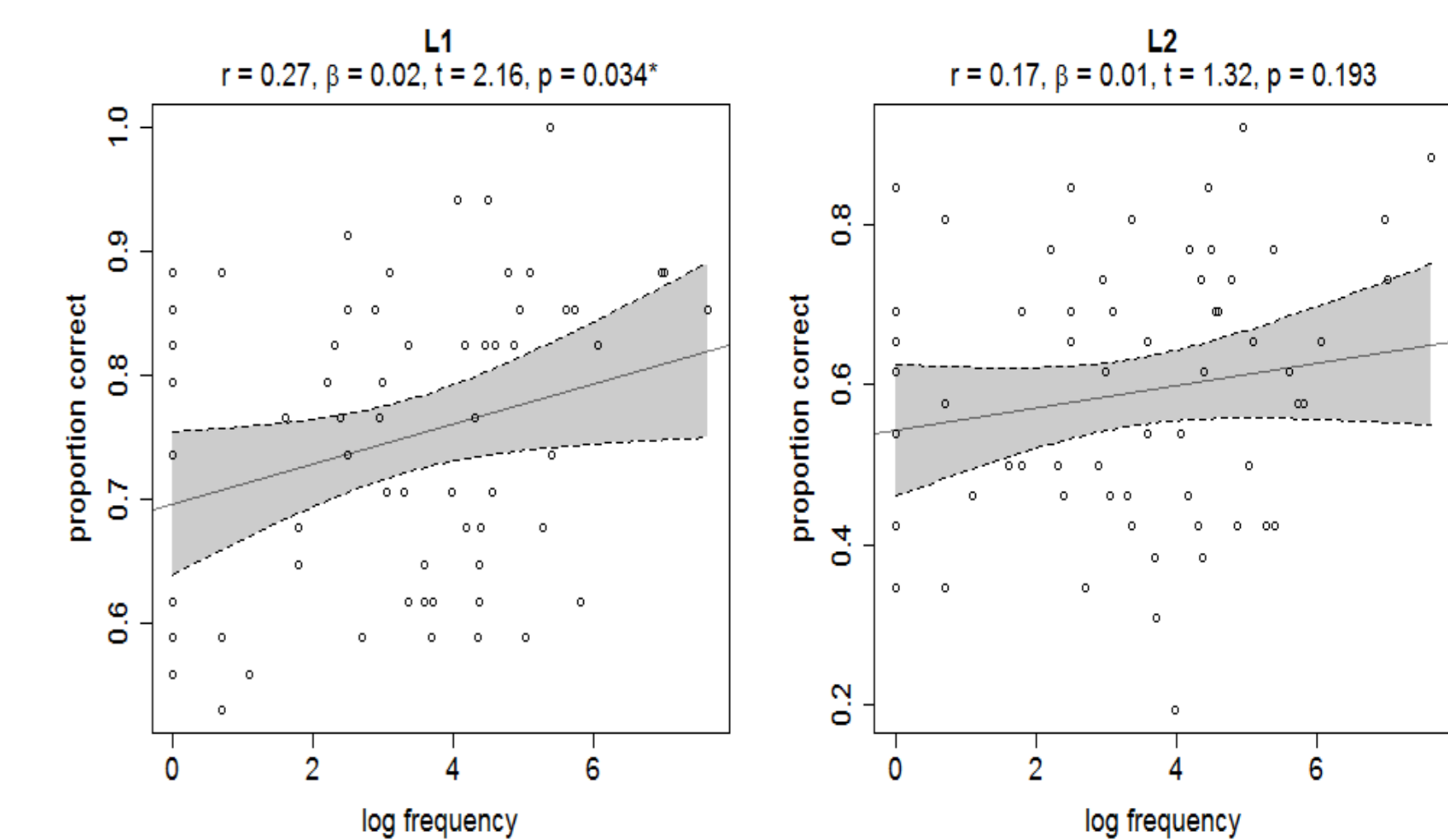
Stimuli were created via brainstorming, and then checked for collocational strength by eliciting native speaker judgements. Unreliable items were dropped. The final dataset consisted of 45 items. Internal consistency was high (Kuder-Richardson coefficient = 0.83). The task was administered using a picture book.

## Results

The L2 children were very poor at the collocations task compared to the L1 controls (see Figure 1). Only 10/26 performed above chance, compared with 32/33 monolingual children. Effect sizes were larger for the collocations task than the BPVS or TROG.

Correlations between collocational abilities and questionnaire-based measures of exposure were weak ( $p > 0.1$ )

In the L1 group there was a significant association between the input frequency of a collocation, and the proportion correct (see figure below). This association was not significant in the L2 group.



Correlations between the language measures were much stronger in the EL1 group than the EL2 group. Differences in correlation coefficients as a function of group reached significance for the BPVS-TROG correlation.

## Conclusions

In the L2 group, there was little evidence for a strong relationship between exposure and performance on the collocations task. Unfortunately, this suggests that a collocations task cannot be used as behavioural measure of exposure.

There was evidence that weak collocational abilities in the L2 children reflect an analytic learning style. This is reflected in the weak association between collocational abilities and receptive syntax. As argued above, this may reflect the fact that the L2 children acquire English during their analytic stage of Wray and Perkins' model.

The strong association between collocational abilities and BPVS in both groups is consistent with research arguing that children acquire words with complex meanings (e.g. manner verbs such as *trudge* or *hike*) from their collocational properties (Dabrowska, 2009)

The strong association between collocational abilities and syntactic comprehension (TROG) in the L1 children is consistent with theoretical accounts which argue that children acquire syntax via analysis of a store of rote-learned forms (Dabrowska & Lieven, 2005)

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