Reviewer’s report

Title: The developmental relationship between language and motor performance from 3 to 5 years of age: A prospective longitudinal population study

Version: 4 Date: 7 May 2014

Reviewer: Katie Alcock

Reviewer's report:

The references to age are now consistent and make sense.

There are still numerous difficulties with English and some further verb agreement errors. I believe I suggested proof reading by a native English speaker and I don’t know if this has been done but if so, perhaps someone with a closer specialism to the paper would help matters as some of the difficulties are in over-colloquial or inaccurate use of language. I would have hoped that I did not have to proof-read this paper once again.

Introduction

The authors state that they have changed their hypotheses in line with their findings. Surely the whole point of a scientific paper is that hypotheses are made and then are supported OR not supported? Can the authors not make hypotheses and then discuss their findings in light of their hypotheses? I am not sure this is in the spirit of science.

The authors removed the rather basic discussion of language development and also state that they don’t feel their study is of value in addressing theories of motor-language links. This study could potentially be of immense value in this area and I think they are selling themselves short by excluding this.

Results

A general point about the reporting of results – several P values are reported as "= .000". I assume they mean "< .001"?

Discussion

Again some vague and unclear language. One point that might merit additional examination is the point on page 17 about a "true developmental relationship". It is possible that a "true" relationship might be the same in typically developing versus clinical samples – but it might not be the same. In other words, there may be no one "true" relationships. The final paragraph and in particular the final sentence is particularly unclear; paragraph 2 on page 18 could also use some clarity.

Specific comments
Pg 3 paragraph 2 second sentence: "less clear distinction between groups" – less than what? Which particular groups are referred to here – the opening sentence does not specify which disorders. Further down this paragraph "what each specific disorder could account for" is rather unclear and odd phrasing too.

Pg 4 – "genetic traits" – this is very non-specific.

"developing late" is very colloquial – I suggest "developmental delay".

Paragraph 2 – "conclusion of literature" - very poor wording.

Pg 5 – sentence beginning "Few longitudinal studies..." - references to these studies would be helpful here.

Paragraph 2 on this page seems to repeat information from earlier in the Introduction.

Pg 6 – Alcock & Krawczyk didn’t find an association between gross motor abilities and language abilities.

Pg 10 – combine the two middle paragraphs to avoid single sentence paragraphs.

Pg 13, bottom – "a significant increase" – over what?; likewise "variance specific to language decreased" needs clarification.

Pg 14 – Gender differences "Girls performed better" – significantly better?

Pg 15 – para 2 - "stability within DOMAINS is"

"language at 3 years of age WAS"

Later in the same sentence – the correlation – which correlation?

Next sentence – " something specific" – what exactly? This is very vague!


Pg 16 paragraph 2 – "In motor development..." – bracket "however" with commas, don't use "like", no comma before "occur"

Pg 17 – para 2 – were all parents reporting female? If not use "parent" not "mother".

Table 3 – each row has asterisks indicating significance next to each mean (confidence interval) PLUS a significance indicator on the RHS. It is not clear what the difference between these is.

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published
**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests