January 20th, 2011
Genova (Italy)

To the Editor(s) of *PLOS Computational Biology*.

Dear Madam(s) / Sir(s),

I hereby submit the enclosed article *The use of phonetic motor invariants can improve automatic phoneme discrimination* authored by myself, Leonardo Badino, Giorgio Metta, Giulio Sandini, Michele Tavella, Mirko Grimaldi and Luciano Fadiga.

In the paper we show how statistically significant benefits can be obtained in automatic discrimination of bilabial plosive phonemes (p,b) from labiodental ones (d,t) by exploiting information about the articulatory kinematics that produces the phonemes themselves. This information is in turn obtained from human subjects using a sophisticated recording setup.

I believe the findings illustrated in the paper are potentially useful to at least two different communities of scientists. Firstly, *neuroscientists* and *speech perception theorists* will find here a few hints endorsing the hypothesis of the involvement of motor areas in speech perception, and the motor theory of speech perception (or its evolution) in general. Secondly, the wider framework of *speech recognition* might benefit from our results, especially as far as the simpler task of phoneme discrimination is concerned.

For these reasons, I think PLOS might find this paper worth publishing.

Yours sincerely,

Claudio Castellini