**PARTICIPANT FORM for the SUMMER SCHOOL**

**Constructivism and Enaction**

**A new paradigm for Cognitive Science**

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## I. – SITUATION

**Status :** ☐ University teacher ☐ Research scientist ☒ **Thesis student** ☐ Post-doc ☐ Other :

**University/ Laboratory : Université de Montpellier III – EA 1977 : Développement cognitif normal et troublé**

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**Special information(s) (article, scientific responsability, participation to research projects, other…) :**

Biscara, C. et Baldy, R. (2005). Une contribution de la dynamique non linéaire à l'étude du développement cognitif : l'exécution d'une série de dessins géométriques. *Revue d'Intelligence Artificielle*, *19*(1-2), 389-406.

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## III. – RESEARCH THEME

In my researches, I adopt a "process-oriented" approach to drawing development focusing on the organization of the movement used for drawing (Goodnow & Levine, 1973). At a global level, this "syntaxic" approach describes graphic routines that drive drawing production. To be a graphic rule, a sequence of execution must be prevailing, whatever age of subject, design and task, and must be stable (resistance of constraints). If generality of a particular execution (progression from periphery to center) has been demonstrated in design composed of four embedded geometric shapes, on the other hand stability has not been studied. So, I am interested in the capacity of grapho-motor system to modify this sequence of execution in function of contextual modification, and the evolution over age. For that purpose, I am oriented to an experimental paradigm inspired by dynamic systems theory (Tuller, Case, Ding & Kelso, 1993, 1994): subjects are invited to copy successively fewer geometrical designs by adapting their executions to gradual modification of context parameter. This methodological approach go with theorical questions about the *emergentist* (drawing production/perception coupling) *vs representational* (recovery in memory of graphic strategy) conception of cognitive functionment.

**Keywords:** Geometric design, Drawing execution, Stability, Dynamic systems theory, Cognitive development

## III. – VIDEOS AND EXPERIMENTAL MATERIAL

*Moments of relaxation might be the occasion to share and show original scientific video documents (not too long) or experimental material (which could be used by all the participants). A video party and an experimental demonstration session have been planned. Could you indicate video or experimental material you would like to present.*

**Videos** : no

**Experimental demonstration** : no