COLUMN: Dynamic of Interpersonal Coordination

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INTRODUCTION

We have expectancy that near future we live with robots, human like machines (autonomous), artifacts, and creatures and we have to cooperate, coordinate, and jointly work to complete the desire tasks. Accordingly, we have to understand overall process of interpersonal coordination in perspective of ecological dynamic [1].

Therefore, in this study we develop Core Less Unformed Machine (COLUMN) as novel & transformable robotic platform to explore how visually mediated information is useful to coordinate (interpersonal coordination) to establish connectedness of three participants to obtain COLUMN’s behaviors (transformable rolling motions). The video showed that initially three of participants have desired goal to induce the rolling behavior of COLUMN. But in the initial interaction, user try to establish temporal adaptation to each other to bring the center of gravity for the COLUMN to an asymmetry position that referring the shape of the COLUMN (visually mediated coordination). Simultaneously users exert self-organized dynamics to adapt to the context. Gradually, each of the user coordinates with each other and eventually all users interpersonally coordinate and coordinate mechanism become a system which is dynamically behaves to archive the goal to obtain the COLUMN’s rolling motion (Figure 1).

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REFERENCES


Fig. 1. Users interact with COLUMN