



Interpersonal Coordination: Methods, Achievements, and Challenges

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Research regarding interpersonal coordination can be traced back to the early 1960s when video recording began to be utilized in communication studies. Since then, technological advances have extended the range of techniques that can be used to accurately study interactional phenomena. Although such a diversity of methods contributes to the improvement of knowledge concerning interpersonal coordination, it has become increasingly difficult to maintain a comprehensive view of the field. In the present article, we review the main capture methods by describing their major findings, levels of description and limitations. We group them into three categories: video analysis, motion tracking, and psychophysiological and neurophysiological techniques. Revised evidence suggests that interpersonal coordination encompasses a family of morphological and temporal synchronies at different levels and that it is closely related to the construction and maintenance of a common social and affective space. We conclude by arguing that future research should address methodological challenges to advance the understanding of coordination phenomena.

Keywords: interpersonal coordination, interactional synchrony, video analysis, microanalysis, motion capture, hyperscanning

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INTRODUCTION

Studies from different fields have demonstrated that human beings spontaneously display behavioral, gestural and linguistic coordination during interactions with peers. These coordinative patterns have been variously termed alignment (Garrod and Anderson, 1987; Garrod and Pickering, 2004), behavioral matching (Bernieri and Rosenthal, 1991; Louwerse et al., 2012), mimicry (Lakin et al., 2008; Cheung et al., 2015) and interactional synchrony (Fine et al., 2013; Endedijk et al., 2015). In general, interpersonal coordination phenomena have been understood as spontaneous temporal synchronization of body movements and/or linguistic utterances between people when they engage in a social interaction (Bernieri et al., 1988).

Most knowledge regarding the factors and consequences of interpersonal coordination has been produced recently as technological advances have made it possible to describe synchronized body movements accurately and in detail. Currently, there are various methods to capture interpersonal coordination, ranging from microanalytical video processing to neuro-hyperscanning. Although this diversity of methods certainly contributes to the acquisition of more complete knowledge regarding interpersonal coordination, it has become increasingly difficult to maintain a comprehensive view of the field. The more specialized technical devices become, the