## The Role of Non-Verbal Behaviours in Social Interactions

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A recent study found that non-verbal behaviours and relationship dynamics play an essential role when communicating information. This finding suggests that your social interactions rely on much more than what you say to someone.

You heard a funny joke and you laughed in response. How did you recognize this from hearing a bunch of words? How did you "just know" when it is appropriate to laugh? Studies show that communication comes in two forms: verbal and non-verbal behaviours. Verbal behaviours refer to what you directly say to someone, such as your words and tone. Non-verbal behaviours encompass indirect aspects of communication, such as your body language and relationship with the person. Previous research did not determine how non-verbal behaviours transfer from one person to another. To fill this gap, Andrew Chang, a Ph.D. student at McMaster University, set out to investigate the dynamics and importance of non-verbal behaviours in social interactions.

Chang and his research team used four-person music ensembles to model human social interactions. They measured non-verbal behaviours by looking at three factors: leader-follower interaction dynamics, body sway, and joint action. In one performance, musicians played without an assigned leader. In the other, researchers secretly assigned leaders and altered whether the ensemble could see the leader while they performed. In both performance settings, researchers used motion capture to record the movement of each musician and their synchrony, also known as body sway and joint action, respectively. After each ensemble played, Chang had musicians rate the performance on a scale from very easy to very difficult to complete.

Chang found that the relationship between musicians affected the ensemble. Musicians assigned as leaders exerted a stronger influence than followers did on the group's body sway. When looking at the role of visual input, leaders had a more significant impact when musicians could see them performing. So, when your friend tells you a joke, you know it's appropriate to laugh in response because of your close relationship (interpersonal relations) and their gestures (visual input). Chang also found that performances rated as easier to complete related to a higher body sway coupling. This finding reinforced that body sway reflects communication among musicians that allows for performance success.

While the findings of this research suggest that non-verbal information sharing has both visual and auditory components, researchers still have some work to do. A limitation of this study involves the use of pre-existing music ensembles. Researchers are encouraged to conduct a study where musicians are randomly selected to be part of an ensemble. Incorporating this in the study design would eliminate any additional factors, such as existing relationship dynamics that may affect the results. As we continue to learn more about social

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interactions, researchers are sure about one thing: you should listen with your body, not only your ears.