

Musical creativity and gazing in second person interactions during jazz improvisation

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Background

Gazing is a feature of human communication and music performance. Moran (2013) analyzes patterns of gaze spatial direction during interactive music performance. Bishop et al. (2019) propose two gazes' functions: engagement-driven (to check the other's involvement in performance) and intention-driven (to communicate one's own action-based plan, and to learn about the other's). The Second Person Perspective of Social Cognition proposes that basic intentions are expressed in body behavior, and that such embodied intentions are perceived by others (Pérez & Gomila, 2021). In previous studies, we identified features of second person, sound-kinetic interactions in jazz improvisation (Martínez et al., 2022). This creative behavior is structured based on the varied repetition procedure, characteristic of early intersubjectivity (Español et al., 2023). As to gazing, we could distinguish two functions of second person intention-driven gazes during music interaction: expressed intention-driven and perceived intention-driven.

Aims

To analyze the relationships between the gaze functions, the mental understanding of musical intentions, and the creative musical production during jazz improvisation.

Method

Participants. 3 duets (D12, D14, D16) of professional jazz improvisers -guitar (G) and saxophone (S)- were selected from a larger sample. *Stimulus.* Chorus 1 of Watermelon Man's backing track. *Participants' task.* To build together a melodic improvisation over the backing track. *Data analysis.* We run (a) a qualitative microanalysis of the music interactive behavior, aiming at identifying gestural patterns of novel and varied music repetition, and (b) another qualitative microanalysis of gaze behavior, using an observational code with categories of gazing. We compared (a) and (b) analyzes searching for links between the improvisers' attitudes toward joint musical creation, and the types of gazes.

Results

Given the relevance of intentions in the second person theory, in this paper we focus on the detection and analysis of perceived and expressed intention-driven gazes. The three duets begin with turn-taking, and end playing joint musical gestures simultaneously. However, each duet's analysis shows different outcomes between (i) the way music is created, and (ii) gazing:

- D12. (i) The music interactive behavior consists of S's melodic proposals, and G's varied imitations of S's musical gestures. (ii) During S's turns, S's gazes express the intention of creating a novel musical gesture. During G's turns, G's gazes express the intention of varying S's immediately preceding musical proposal. Perceived

intention-driven gazes are oriented to grasp the musical intentions while the other is playing.

- D14. (i) S and G produce and sustain contrasting rhythmic gestures during turn-taking (S: fast notes; G: few, slow notes). Notwithstanding, both take features of the other's pitch contour in their turns. (ii) G's gazes are accompanied with manifest body movements towards S, apparently expressing an invitation to join his rhythmic behavior (expressed intention-driven gazes). Predominance of mutual gazes during G's turn (83% of G's turns' total time), and S's and G's joint synchronous, isorhythmic performance at the end of chorus 1 are interpreted by G's leadership behavior.
- D16. (i) Turn-taking gradually changes into an overlapping musical improvisation, which requires a tight and constant interaction between performers. This process is enabled by a strict tonal agreement of the melodic creations to the backing track harmony, and by the prevalence of a simple repeated-notes gesture shared by both performers. (ii) S looks at G permanently (93% of the performance total time), while G rarely looks -short glances- at S (21%). To the extent that G musically and bodily follows S, we interpret that G aurally grasps S's intention in her musical creation.

Discussion

Perceived and expressed intention-driven gazes contribute to understand creative behaviors in taking the other's musical gesture (varied repetition) and emphasizing the own musical proposal (novel and varied). During his/her turn, the performer's gaze expresses his/her current music's intentional action to the other; and during the other's turn, the performer's gaze aims at perceiving the other's musical intention in his/her expressive body behavior. The intertwining of the music creative behaviors (novel musical gestures and varied repetition) and the intention-driven gazes (expressed and perceived) accounts for reciprocal interaction that is characteristic of second person perspective. Creativity is embedded in and emerges from musical intentions that shape moment by moment jazz improvisation. However, this general behavior of creative musical interaction presents specific characteristics in each duet. On the one hand, due to D14 G's leadership, attention is directed more to G's intentions than to S's. This is apparent both in the prevalence of G's musical proposals and in the high amount of mutual gazing during G's turns (co-occurrences of G's expressed intention-driven and S's perceived intention-driven gazes). On the other hand, it is apparent that the mutual understanding that arises from the highly cohesive interactive performance of D16 does not depend on the mutual gazing behavior. The low amount of G's gazing is counterbalanced by G's aural perception of S's intentions along her musical improvisation. Summing up, in this musical context, gazing contributes to mutually understanding the other's musical intentions and to negotiate the online musical creation.

References

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