

MARIA PUUSAARI

“Leading” in contemporary music performance-practice

Lectio praecursoria

The public examination (Artistic Programme) of Maria Puusaari was held on 24 March 2025 at the Camerata Hall of the Helsinki Music Centre. The subject of the doctoral degree and the title of the written thesis was: “Leading” as a mode of interaction and communication in contemporary music performance-practice on the violin. The Chair was Professor Mieko Kanno. The statement of the demonstration of artistic proficiency was presented by the Chair of the Artistic Board, DMus Anu Lampela. The statement of the written thesis was presented by Professor Barbara Lüneburg.

Musical performances during the lectio:

Jarkko Hartikainen (b. 1981): *Baby-talking jive* (2022)

Maria Puusaari, violin, Anna-Sofia Anttonen, saxophone.

Jouni Hirvelä (b. 1982): *Gesti* for violin, electronics and video (2020), first movement. Video performance from the second doctoral concert on 26 November 2020.

Maria Puusaari, violin, Jon-Patrik Kuhlefeldt, sound design.

My artistic doctoral degree work, “Leading’ as a mode of interaction and communication in contemporary music performance-practice on the violin”, consisted of five concerts, two peer-reviewed research articles, and a summary, which contextualised the concert series and the two research articles within the overall doctoral project.

The artistic component of my doctoral work, the concert series “At the Edge of the Sound – Violin as a Medium for Composers’ Expression”, consisted of chamber music and solo violin works that ranged from pieces composed after the Second World War to the newest music of today. My main interest was to explore

the rich repertoire of this specific era and to develop my skills as a violinist. In the five concerts, I presented varied composers and their different compositional styles and performed contemporary classics as well as some rarely heard music. I also commissioned five new works from the composers Jukka Koskinen, Jouni Hirvelä, Maija Hynninen, Jarkko Hartikainen, and Veli Kujala, whose works extended the violin repertoire by featuring electronics, video, lights, and varied performative elements.

In my practice-based doctoral study, I explored leading as a mode of interaction and communication in contemporary music performance-practice. Leading is an elementary musical, non-verbal, and multimodal bodily skill that is used to direct and synchronise an ensemble performance by physical gestures, gazes, and instrumental movements while playing an instrument. There was not much artistic research on this topic, and therefore leading in contemporary music provided a fascinating topic to study.

LEADING CONTEMPORARY MUSIC – PERSPECTIVES, RESEARCH METHOD, DATA COLLECTION

Based on my own experiences and discussions with other musicians, leading in contemporary chamber music ensemble is often considered more challenging than leading in classical chamber music. Complex rhythmic and harmonic structures, new notations and tuning systems, extended playing techniques and using electronics offer varied challenges for performing and leading (Heaton 2012, 778–797). Typically, rhythmically complex and technically very demanding works without a clearly audible pulse are the most challenging ones to be led. Moreover, leading in contemporary music often requires physical leading gestures that compete against the playing gestures used in performing one's own part.

In my study, I approached leading from two different perspectives. The first research article focused on leading in a chamber ensemble context. The second research article explored leading in a solo violin performance.

The research method of my practice-based study was grounded in an introspective first-person perspective and my own bodily knowledge that emerged during my performance-practice. My method was influenced by the sensory interview method developed by Nummi-Kuisma (2010), who approached playing and interviewing as an intersubjective system to elicit and verbally reflect on a musician's implicit knowledge. I analysed and tested my observations and ideas in my daily practice and performances. I used my notes, a rehearsal diary, audio and video recordings, annotated scores, discussions with my fellow musicians, and multiple studies of musicians' gestures as reference materials, against which I reflected on my knowledge and insights in leading.

LEADING IN A CHAMBER MUSIC ENSEMBLE CONTEXT

In the first article “Leading’ as a mode of interaction and communication in contemporary music performance-practice”, published in *Trio* journal in 2021, I approached leading through the theory of expressive alignment as a method of enactment by Leman (2016, 26–32, 134–135). According to Leman, expressive interaction is based on flexible multimodal, crossmodal, and multisensory interactive processes, where information is sent and received in multidirectional interactions between the performers. I used three case-studies of my own practice to explore and explain the musical, gestural, visual, audible, social, and interactive elements of leading. My aim was to answer two research questions: What kind of leading techniques are used to express different musical features when leading chamber ensembles in contemporary music? And, what factors affect leading?

First, I categorised different musical ensemble roles as a leader, a co-leader, a supportive leader, and a follower to describe their different functions in a chamber ensemble. These different ensemble roles depend on various musical and practical factors such as instrumentation, musical material, seating, audibility and visibility between the players, instrumental and interactive affordances, the performers’ experience and personal leading skills, and their familiarity with each other and the performed music (Goodman 2002, 155–157, 164–165; King 2013, 253).

I divided leadership into designated and shared leadership, and provided examples of stable and varied leading practices among different ensembles. A *leader-follower ensemble* is organised with one designated leader and ensemble members that follow the leader’s gestural cues. A *supportive co-leading ensemble* may have one designated main leader, but there might be another co-leader, and other ensemble members may support the leading with their bodily gestures and occasionally take turns in leading. In *shared leadership*, leading responsibility is shared, alternated, and rotated between the ensemble members. Shared leadership requires individual instrument-specific leading skills from each ensemble member, and typically verbal communication on taking turns in leading (Goodman 2002, 155). In my case-studies, even the ensembles that began their rehearsal process with one designated leader began to function as a supportive co-leading ensemble, and to share and rotate the leadership when needed.

I divided leading techniques into two main categories: temporal and expressive leading techniques. *Temporal leading technique* often imitates a conductor’s beat patterns to indicate temporal musical features such as entries and exits, tempo, pulse, upbeats and downbeats, tempo and time changes, divided beat patterns, and agogics. *Expressive leading technique* includes a combination of both intentional and non-intentional, multifunctional bodily gestures and postures, gazes and facial expressions, instrument movements, playing techniques, and breathing to communicate expressive musical features such as direction of phrasing, dynamics, articulation, and

musical gestures and characters. Typically, expressive leading technique was combined with temporal leading, for example by indicating an articulation or dynamics within a beat pattern.

Varied works included different extended playing techniques which often constrained leading gestures and required an extended leading technique, a set of new leading gestures. Due to the constrained leading gestures, the leadership also had to be rotated among the ensemble members.

Through the case-studies I demonstrated how leading techniques must be consciously practised and embedded in the body language as separate, instrument-specific playing techniques. I provided several practical examples of my own leading practices, such as using a metronome to time and measure the amplitude and pace of my leading gestures.

I recognised several notational, instrument-specific, temporal, sensorimotor, socio-cultural, and acoustical factors that affected my leading practices. The possibilities and limitations of leading depend on varied factors such as the musical material, the size of the ensemble, its leadership style and ensemble roles, the ensemble members' listening skills and their experience in performing and leading contemporary music, familiarity with the performed work, and instrumental and interactive affordances (MacRitchie et al. 2017, 154–155). Socio-cultural aspects such as general working atmosphere, trust and familiarity with each other, nervousness, and other emotional aspects have a great impact on ensemble playing (King 2013, 266–268). Furthermore, the level of concentration differs in rehearsals and in a performance, which affects the gestural performance and the amount and quality of leading gestures.

Timing culture and reactions to tempo indication vary in different ensembles. The size of the ensemble, its leadership style, and different ensemble roles produce different timing reactions; for example, a leader's tone onset time tends to be earlier than the onset time of a follower. Moreover, the instruments' playing manners and their different onset times affect the speed of the sound, which in turn affects the musicians' reactions and timing. (Timmers et al., 6–8.) Acoustics also affects the performers' mutual audibility and the need for visual leading gestures.

I continued to explore different leading practices within the chamber music works in my concert series. Generally, I asked myself what to lead, how to lead, when to lead, when not to lead, and when to alternate the different ensemble roles.

Leading gestures had different functions in different works. In works without a clearly audible pulse, temporal leading gestures functioned as a general temporal reference, “a gestural metronome”. In works with a clearly audible pulse, temporal and expressive leading gestures confirmed, amplified, and characterised the perceived audible information. I also used breathing as a physical, supportive gesture in leading and violin playing. This kind of breathing with gestures also occurred in the ensemble context as *ensemble breathing*, when the ensemble unified their leading and

playing gestures with the help of collective breathing.

It is not possible to hear everything while playing, and hence leading is needed to help the performers coordinate and synchronise their musical actions, and to listen to their performance in the temporal frame defined by the leader.

LEADING IN A SOLO VIOLIN PERFORMANCE AND IN A MULTIMEDIA CONTEXT

The second research article, “Leading’ as a strategy in the performance-practice of contemporary solo violin music”, published in *Music Performance Research* in 2024, emerged from my observation of the diverse focus-of-attention conditions that occurred during my chamber ensemble and solo performances. Focus-of-attention refers to what one is thinking about and focusing on during a performance. The constrained action hypothesis by Wulf, McNevin and Shea (2001, 1144, 1152) suggests that external focus-of-attention on the targets that are further from a performer’s own body produce more automatic and efficient movements than internal focus-of-attention on the targets that are close to the performer. Hence, focus-of-attention has a great impact on learning and performing different physical and musical skills (see Mornell & Wulf 2019, 385–387).

Generally, playing and performing require both internal and external focus-of-attention. Multidirectional interaction in leading a chamber ensemble automatically involves some externally focused attention. A solo performance allows more internal focus-of-attention, which typically led me to focus more on my instrumental playing gestures and inner sensations than in a chamber ensemble performance. However, I was often more satisfied with my chamber ensemble performances. That led me to ask whether I could use leading and a leader’s attitude as a performance-practice strategy, and which temporal and expressive leading techniques could be applied and used in a solo violin performance. I had two goals: to improve my own performance by leading myself, and to better communicate music to the audience.

The theoretical framework for my study was based on music-related studies of focus-of-attention and physical gestures (see Jensenius et al. 2009). I approached leading in a solo violin performance both as a metaphorical concept and a physical performance-practice strategy.

The first case-study, *Toccatina* for solo violin (1986) by Helmut Lachenmann, is known for its soft sounds produced by extended playing techniques that require gestural control. Executing these playing techniques and reaching the correct pitches required internally focused attention on internal simulation of what will happen next, a kind of an “internal singing and listening ahead”, and also internal focus-of-attention on playing techniques and gestures and listening to the sounds that these techniques produce.

However, executing extended playing techniques often disturbed my sense of pulse and the temporal flow of music. Therefore, I used temporal leading technique as an “internal metronome” to indicate the pulse to myself and to time my musical actions. I combined an expressive leading technique with a temporal leading technique to emphasise phrasing, articulation, and dynamics. I used metaphors such as *breathing with gestures*, which changed the tactile quality of my physical gestures. Leading myself helped me to focus my attention more externally on projecting soft sounds towards the audience, and listening to the sounding result in the hall.

The second case-study, *Gesti* (2020) for violin, electronics and video by Jouni Hirvelä, offered me new insights into leading in a solo violin performance. In addition to the leading gestures, the pedal-pressing gestures in launching the electronics and video and other theatrical foot gestures and body postures had a specific temporal and expressive role in leading my own performance, and in synchronising my playing with the electronics. The most surprising finding in my study was my unconscious adaptation to alternating chamber ensemble roles. Inspired by this observation, I began to consciously alternate the roles of a leader, co-leader, and follower. The bodily active leader and co-leader roles resulted in more alert anticipation and reactions, which helped me to time my musical actions and synchronise with the electronics. In the follower role, my internal sense of pulse became uneven, and the timing with my reactions with the electronics became unstable.

Finally, I provided a leading-based approach to a solo violin performance, in which a performer first classifies the performing gestures in relation to the notational practices of the score (see Kanno 2007; Orning 2012) and then immediately integrates the temporal and expressive leading gestures into practice. This expands the understanding of gestural-sonic possibilities in performing music (see Godøy 2006, 155–156) and leading the performance. Next, using varied metaphors nurtures the performer’s musical and gestural-sonic imagination, affects the tactile quality and character of the performance gestures, and provides a more external focus-of-attention condition for the performance. Finally, different focus-of-attention conditions are alternated already during the practice in order to create more variable performance models.

Within the works of my concert series, I realised that my approach to the works for solo violin and electronics was often more similar to a chamber ensemble performance than a mere solo performance. Therefore, I argue that leading as a method of interaction and communication involves three different orientations and contexts: leading in a chamber ensemble context, leading in a solo performance, and leading a solo violin performance in a multimedia context, the latter including electronics, live-electronics, video, and other types of media.

The leading-based approach and leading myself clarified the musical structures and offered varied gestural associations and intertextual musical references to other works. I used this kind of *associative leading* to analyse and interpret the music. I

used *intentional leading* as a strategy to emphasise the musical expression by intentional bodily and instrumental movements, gazes, and theatrical performance gestures. I also used *orchestral leading* and applied the multidirectional leading gestures of an orchestra section leader in my solo practice, which helped me to activate my whole body and to focus my attention externally towards the audience.

Listening is based on multisensory, audio-visual perception, which means that visual performance gestures and facial expressions have a great impact on how a listener hears and interprets the music (Platz & Kopiez 2012, 77). Therefore, I argue that leading in a solo performance is not a mere metaphor but an essential performance-practice strategy.

FURTHER THOUGHTS

My doctoral study offers new information on leading in all three leading contexts. In a chamber ensemble context, a conscious practice of leading improved my leading skills. However, the leading-orientated approach turned out to be far too limited to allow me to fully understand the interaction network required in each performance. Consequently, shared, alternated, and rotated leading practices became the most elementary part of my performance-practice.

I argue that temporal and expressive ensemble leading techniques can be used and applied in a solo violin performance and in a multimedia performance. The metaphors of a *leader's attitude* and *leading myself* facilitated better timing of my musical actions and helped me to approach my performance-practice from a third person's perspective, as if I was an ensemble member adapting myself to my own leading. Moreover, metaphors such as *the audience as my ensemble* increased my sense of connectedness with the audience and helped me to focus my attention externally.

I argue that the ability to recognise varied leading practices, ensemble roles and different factors affecting leading can help musicians improve their personal leading skills and create more effective leading practices. Personal leading skills also help musicians understand and support the other performers' different leading practices and to adapt to the different ensemble roles.

Improved leading practices provide a temporal and gestural framework that help the ensemble accelerate the learning process for new repertoire and improve their musical and physical performance skills, such as mutual listening, the anticipation and perception of music, gestural interaction, and the communication of contemporary music. For a solo performer, leading and a leader's attitude provide tools to analyse and interpret music and lead one's own performance. Consequently, advanced leading practices help musicians to better communicate the music to the audience. Therefore, every musician can and should learn leading.

These observations of my violin-specific leading practices can be used and applied by other musicians as part of their performance-practice. However, it would be interesting to learn more about other performers' leading practices in contemporary music contexts, and hence there is a need for further practice-based studies on leading. In particular, exploring ways to teach leading to students and professionals without a background in contemporary music would provide salient topics for further studies.

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