

**THE ROLE OF THE SILENT MOMENTS IN RELATIONAL CONFLICT
SITUATION IN MULTI-ACTOR THERAPY DIALOGUE**

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ITÄVUORI, SAARA & KORVELA, ESSI: Hiljaisten hetkien rooli parisuhteen konfliktitilanteessa
monitoimijaisessa terapiadialogissa

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TIIVISTELMÄ

Tämän tutkimuksen tarkoituksena oli syventää hiljaisten hetkien merkitystä pariterapiassa keskusteltaessa parisuhdekonfliktista. Lisäksi tarkastelimme, löytyykö hiljaisten hetkien aikana synkroniaa osallistujien väliltä keskustelun ja kehon tasolla. Monimenetelmäinen tutkimuksemme keskittyi kolmeen tasoon: terapeuttiseen keskusteluun, psykofysiologisista mittareista (autonominen hermosto) saatuun informaatioon sekä osallistujien ajatuksiin ja tunteisiin SR- haastattelussa. Nämä mittarit analysoitiin ensin erikseen, jonka jälkeen niiden antama informaatio yhdistettiin. Tarkoituksena oli saada mahdollisimman luotettavaa tietoa hiljaisten hetkien merkityksestä parisuhdekonfliktin käsittelyssä. Kaksi kohtaa, joiden sisältä löytyi yhteensä yhdeksän hiljaista hetkeä, valittiin lähempään tarkasteluun. Tutkimustuloksiamme mukaan puhe oli ainoastaan yksi keino ottaa osaa keskusteluun ja osallistujat jatkoivat keskustelua kehollisesti hiljaisten hetkien aikana. Esimerkiksi eräs osallistuja näytti ulkoisesti passiiviselta, vaikka samanaikaisesti hän oli hyvin aktiivinen kehollisesti. Huomasimme myös hiljaisten hetkien ilmaantuvan keskusteluun sen jälkeen kun jotain merkityksellistä oli tapahtunut joko keskustelun- tai kehon tasolla. Tuloksiin perustuen hiljaiset hetket rytmittivät ja kantoivat keskustelua eteenpäin sekä antoivat mahdollisuuden keskustella vaikeista ja vakavista aiheista. Näemme, että hiljaiset hetket olivat avainasemassa parisuhdekonfliktista keskusteltaessa.

Avainsanat: hiljaiset hetket, prosodia, terapeuttinen dialogi, autonominen hermosto, synkronia

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ITÄVUORI, SAARA & KORVELA, ESSI: The role of the silent moments in relational conflict situation in multi-actor therapy dialogue

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ABSTRACT

This study aims to deepen the understanding of the role of silent moments in couple therapy dialogue when relational conflict is discussed. We also studied whether synchrony occurs in the silent moments. Our multi-method analysis focused on three aspects: therapeutic conversation, psychophysiological data (Autonomic Nervous System, ANS) and the participants' thoughts and feelings from Stimulated Recall interviews. These measurements were analyzed separately at first, and then integrated into the description of the silent moments' meaning during the relational conflict discussion. Two episodes within nine silent moments were selected for further analysis. Our results showed that speech is only one way of participating in conversation, and that the couple continued the conversation through their bodies during the silent moments. For example one participant, who seemed passive, had strong bodily reactions. We also noticed that silences occurred after a meaningful moment in either the embodied or conversational dialogue. Based on these results, the silent moments created rhythm and carried the conversation, giving the couple an opportunity to continue the conversation in a situation when their relationship was at stake. We see that the silent moments played a key role in relational conflict discussions.

Keywords: silent moment, prosody, therapeutic dialogues, autonomic nervous system, synchrony

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INTRODUCTION

Dialogue plays a major role in couple and family therapy (Rober, 2005; Seikkula, 2008; Seikkula, 2011). According to Bakhtin (1984) the human participates in dialogue throughout his life, using his entire body in all interactions. The core content of Bakhtin's work states that the human mind is polyphonic; meaning our mutual dialogue is influenced by the current interaction with our partners and our previous relationships, life experiences and traumas. In dialogical practice, the therapists synchronize their use of language with the client by using the client's own words (Seikkula, Karvonen, Kykyri, Kaartinen, & Penttonen, in press). This is how the participants attune to each other within the outer, spoken dialogue. The inner, unspoken dialogue plays an important role in therapy dialogue too because it influences what is said and how it is uttered (Seikkula & Arnkil, 2007). Thirdly, the embodied component can also be identified as a significant part of the dialogue. In the 1950's it was found that no more than 30 to 35 percent of social interaction happens through words (Birdwhistell, 1952) but it is only recently that the embodied quality of psychological functioning has attracted wider interest in the psychotherapy practice and research (Cromby, 2012).

The meaning of therapy dialogue is to find words for experiences which have not yet been voiced. Seikkula et al. (in press) presented that embodied experiences born in relationships are also stored inside the memory of a body, and those memories activate in relational situations. When these embodied memories are formulated into outer or inner words, they are no longer non-conscious. In therapy dialogue, silent moments and pauses between words express these kind of non-conscious experiences. For example, a speaker may look for words to describe his own experiences through silences. Thus silent moments' research is relevant by combining three levels of dialogue, i.e. the interpersonal (outer) level, the intrapersonal (inner) level and the bodily level. As far as we know, no research has been conducted in this manner.

The present study is a part of the Relational Mind research project (Seikkula, 2013) and it aims to increase the understanding of silent moments by combining observations from therapeutic conversation, participants' psychophysiological data (Autonomic Nervous System, ANS) and participants' thoughts and feelings. A part of our study also detects whether synchrony can be found between participants during silent moments.

The diversity of synchrony

The newborn baby will typically synchronize body movements, facial expressions and gestures with her nurse (Bràten & Trevarthen, 2007; Trevarthen, 2001). Synchrony is generally understood as the simultaneity of embodied functions. The idea of this phenomenon is in intersubjectivity – human nature’s tendency to attune with each other to share the mutual understanding and meaning in interaction. The newborn baby learns social interaction via intersubjectivity, first with her nurse and soon after with an entire “village” of relationships (i.e. Hrdy, 2009) and this helps her to understand the way to communicate with others (Gallagher, 2011). From the very beginning, humans learnt to attune with many others in different ways in order to be understood and accepted, so the multi-actor aspect is valid to take account in therapeutic situations.

Moments of synchrony happen “here and now”, usually last a couple of seconds and are very context sensitive (Altenstein, Krieger, & Grosse Holtforth, 2013; Stern, 2004). In the aspect of intersubjectivity, moments of synchrony are shared moments, like moments of laughter as well as moments of silence. This same idea can be seen in the therapy session where participants tend to attune with others not only through words, but also through their whole bodies. Synchrony can often be dyadic or triadic and it’s usual that therapists will synchronize more with another client forming therapist-client pairs in couple therapy contexts (Seikkula et al., in press).

Like the mother who changes her voice’s pitch depending on the infant’s mood, the same effect can be seen in therapy. Weiste and Peräkylä (2014) found that the similarity of speech pits between therapists and clients was meaningful for the client’s experience of the therapist’s empathy. Speech synchrony between the therapist and the client is also related to forming a good therapeutic alliance, as well as the client’s experience of being heard (Seikkula & Arnkil, 2007). To sum up, similar ways of talking in conversation lead to experiences of attunement and can contribute to the outcome of therapy.

The idea of intersubjectivity has helped psychotherapy research gain interest in the embodied synchrony of human psychological functioning (Cromby, 2012). There is little research available on embodied synchrony, but important observations have been made by taking ANS reactions into consideration. Levenson and Ruef (1997) noticed that physiological reactions’ synchrony between the client and therapist is related to emotional synchrony. Ramseyer and Tschacher (2011) observed that body movements between therapists and clients can increase the cooperation in the relationship and can

contribute to a better therapeutic outcome. Over the years, interest in electrodermal activity (EDA) has grown: several studies have shown that concordance in electrodermal activity is related to perceived empathy between participants (Marci, Ham, Moran, & Orr, 2007; Messina et al., 2013; Slovák, Tennent, Reeves, & Fitzpatrick, 2014) and vice versa – emotional distance was related to weak concordance in EDA and perceived empathy between participants (Marci & Orr, 2006).

Silence and silent prosody in therapeutic conversation

Silence has different roles in interaction depending on the verbal and nonverbal symbols of the surrounding context (Johannesen, 1974). Silence is a conversational means used in organizing turn-taking in conversation (Sacks, Schegloff, & Jefferson, 1974) and in everyday situations it can be sensed for instance in comforting, unease or even fright. Silence is often seen as accepted, and even an expected part of the conversation in therapy (Levitt, 2001). It can also be seen as an important tool that allows the therapist to understand the therapeutic relationship, client's conflicts and defenses, resistances, adaptive functioning and interpersonal style better (Lane, Koetting, & Bishop, 2002). Sabbadini (1991) suggested that silence is a space where words can't be spoken and therapists should pay attention to when and why some issues are difficult for the client.

Silences can have both negative and positive meanings in therapy. As negative meanings, silences can express client's anger, fear, depression, disinterest, withdrawal or absence of emotion (Liegner, 1971) and it can also communicate problems in a client relationship (Sabbadini, 1991). Silence can also express the requirements of cognitive processing (Perfetti & Papi, 1985). However, according to Lane et al. (2002), silence may also give the feeling that the therapist is distant, disinterested or disengaged, which can lead to a decreasing therapeutic alliance. As a positive, silence can express the client's trust and intimacy with the therapist (Trad, 1993). Sometimes silence identifies feelings of pleasure, harmony, acceptance, approval and understanding (Liegner, 1971) or a client's emotions awakening (Gendlin, 1996). It may function as a channel for the therapist to demonstrate empathy for the client (Hill, Thompson, & Ladany, 2003) and silence has also been seen as a turning point in the narrative report (Gee, 1986). According to both Wepfer (1996) and Cook (1964), silence in therapy may be associated with a client's insight experiences and therapeutic success and thus it could be a productive element in therapy.

Silent prosody usually appears in connection with silences and it can be seen as a similar phenomenon as silence in therapy. Prosody is related to the musical properties of speech expression, such as rhythm, melody, flow, intonation and pitch (Couper-Kuhlen & Selting, 1996; Reed, 2010). In the therapy environment, Quillman (2012) has found that clients are more responsive to how things are being said rather than what is actually said. MacGregor, Corley and Donaldson (2010) have found that the listener hears and takes better account of things that are said in silent prosody. Prosody can also work as a tool: therapists often show their empathy by changing prosody, for example, lowering pitch, softening speech and speaking more slowly (Weiste & Peräkylä, 2014). In addition, less dense words are used during silent prosody, i.e. there are silences inside the speech. These kinds of pauses within conversational turns could refer to the difficulty of finding words (Kircher, Brammer, Levelt, Bartels, & McGuire, 2004), which may refer to the sensitivity of the topic. Prosody also has a meaning when handling conflicts and for example Lapidés (2011) noticed that clients pay attention mainly in prosody in relational conflicts. Therefore both silence and silent prosody have their own important roles in therapy conversation.

Autonomic nervous system to understand embodied experiences

The expression of emotion in the body has been studied for centuries, since the James & Lange theory (Cannon, 1927) suggested that stimulus produces a physiological and behavioral experience first, and an emotional experience after. According to Levenson (2014), ANS reactions can provide information about the emotions experienced. This phenomenon is interesting to investigate in the context of therapy because these reactions are strongly connected to human behaviour with others. Also as mentioned earlier in this paper, signs of perceived empathy have been found in ANS reactions (Marci & Orr, 2006; Marci et al., 2007; Messina et al., 2013; Slovák et al., 2014).

To gain information about embodied experiences during the therapy sessions, measurements of the ANS reactions are relevant. The ANS is separate to the sympathetic nervous system (SNS) and parasympathetic nervous system (PNS). The SNS activate in “fight or flight” moments and when negative or unpleasant emotions are experienced. For example, fear has been connected to increased heart rate (HR) (Aue, Flykt, & Scherer, 2007; Baldaro, Gattacchi, Codispoti, & Tuozzi, 1996),

electrodermal activity (EDA) (Collet, Vernet-Maury, Delhomme, & Dittmar, 1997) and breathing (Ax, 1953). Anger has been connected to fast breathing and increased HR (Hamer, Tanaka, Okamura, Tsuda, & Steptoe, 2007; Schachter, 1957). Also sadness activates the SNS (Gross, Fredrickson, & Levenson, 1994; J. Rottenberg, Kasch, Gross, & Gotlib, 2002; J. Rottenberg, Wilhelm, Gross, & Gotlib, 2003). So called “non-crying sadness” has some special features: decreased EDA (Gross et al., 1994; J. Rottenberg et al., 2002) and increased breathing activation including fast and deep breath (Gross et al., 1994; Rottenberg, Gross, Wilhelm, Najmi, & Gotlib, 2002). The PNS is active in “rest and digest” and can be seen in opposite reactions to the SNS activation. For example, relief has been connected to PNS activation and decreased HR (Bloom & Trautt, 1977), slower breathing (Blechert, Lajtman, Michael, Margraf, & Wilhelm, 2006) and a lower EDA (Blechert et al., 2006; Bradley, Silakowski, & Lang, 2008). Some special phenomena have also been found: according to Feleky’s (1916) early studies, surprise appears as holding one’s breath and anxiety is found to be related to fast and shallow breathing (Blechert et al., 2006). These studies above were made in unnatural situations. Our study has been conducted during a natural therapy situation.

To understand the human beings’ interaction in multi-actor situations, as in couple therapy sessions, it should be taken into account that the ANS reactions don’t only show awakened emotions; they are also responsible for the basic functions of the body. In our study, the goal is not to identify different emotions from the ANS reactions but to use the ANS data to help us better understand the multi-actor therapy situation, as part of embodied dialogue.

The aim of the study

The aim of this study is to investigate how different voices in the silent moments can be seen from the therapeutic conversation, participants’ psychophysiological data (ANS) and the participants’ thoughts and feelings. Through these sources of the data, we try to understand the role of the silent moments in relational conflict situations during the multi-actor therapy dialogue. A part of our study is also to observe whether synchrony can be found between the participants during the silent moments. To answer the aims of this study, we focused on two episodes within several silent moments which were selected for multi-method analysis.

METHODS AND DATA

This study is a part of the research project entitled "Relational mind in moments of change in multi-actor therapeutic dialogues". The project is a part of the Finnish Academy's Program "Human mind" and conducted at the University of Jyväskylä, Department of Psychology in collaboration with five European Universities. The project aims to increase our understanding of the embodied quality of therapeutic dialogues and the attunement between the participants. The aim is also to find the relevant moments of the interaction as well as their impact on the outcome of the therapy. This project examines the therapists in the same ways as the clients and provides a variety of different information about the participants before and after, as well as during the therapy sessions. For the reasons stated above, this research project is internationally unique. Data for the Relational Mind -research project is gathered at the Jyväskylä University Psychotherapy Training and Research Centre. Each therapy process includes two measurement sessions (most often 2nd and 6th sessions) which include each participant's ANS recordings and Stimulated Recall (SR) interviews.

The case and design

In this study, we examined one couple and their two therapists. The couple contacted Jyväskylä University Psychotherapy Training and Research Centre to seek treatment mainly for intimate partner violence and communication problems. The male client also had his own treatment contact related to intimate partner violence. The clients gave basic information regarding their health status: the male client had been diagnosed with depression, which he also been prescribed medication for. The female client has not been diagnosed with any mental disorder. The ethical board of the University of Jyväskylä approved the arrangements of the Relational Mind project. All participants have given written consent. The therapists were experienced male therapists. Therapy was non-manualized but it always contains reflective conversation between the therapists and the style of the therapy combines dialogical, narrative and reflective orientations. At the moment of writing this paper the therapy continues. To protect privacy, we have changed the authentication information in all material. In this study we have named the clients as Heli (the female client), Lasse (the male client) and the therapists as

T1 and T2.

This project's therapy sessions were video-recorded with a split screen between the therapists and the clients, using two cameras. The whole setting and a precise facial image of every participant were captured with one camera each. The therapy sessions were also audio-recorded. We utilized facial image recordings to enable the participant's facial expressions to be seen in more detail.

In the measurement sessions (2nd and 6th) and in the SR interviews, all participants were wearing equipment which measures ANS responses (HR, breathing and EDA). HR was measured using First Beat Bodyguard recording method (First Beat Technologies, Jyväskylä, Finland). This equipment was attached to the skin for about a day before the therapy session and could only be removed when the participants took a shower or went swimming. EDA and breathing were measured by using BrainProducts (Germany) equipment. EDA was measured from the participants' non-dominant hand. Brain Vision GSR Module device electrodes were attached below an index- and a little finger. Breathing was measured with a flexible fabric breathing belt, which was attached around the lower chest. Information was generated from the stretch and recovery movements during respiration. This provided data that describe inter alia the variation of the inspiratory and expiratory movement, the depth of breathing and the breathing rate. In addition to the above indicators, the finger pulse volume (FPV) and neck muscle activation (BrainProducts) were measured in SR interviews. Most of the material was collected with the NeuroLabs-program.

After the measurement session participants took part in SR interviews one person at a time, within one day of the therapy session. The researcher, an outsider to the therapy sessions, selected the extracts that were shown to the interviewees. The researcher showed four video extracts from the therapy session one by one, after which she presented open-ended questions related to thoughts, feelings and body sensations in that particular therapy moment. The participants also had an opportunity to pause the video extract to comment on it. The common criteria for selecting the four video extracts were 1) visible intense emotion (looking sad, weeping, showing irritation etc.), 2) notable changes in the interaction (e.g. vivid dialogue after long section of monologues), 3) changes in EDA responses, (e.g. a strong response by one participant, or changes that indicate synchronization of two or more participants) or 4) a combination of the above mentioned criteria. SR interviews were recorded with two cameras and lasted about 30-40 minutes.

Analysis

We started the multi-method analysis by looking at the video-recorded therapy sessions from the first to the tenth session (the latest session) to get an understanding of this particular therapy case, and to draw attention to the presence of silences during the sessions. The therapy sessions' silence analysis started by focusing on silences and pauses in conversation, as well as the silent prosody of speech, to identify the silent moments of interaction. Two kinds of silent moments were selected from the sessions based on the following criteria: 1) silences (no speech at all) with a duration of more than three seconds 2) changes in prosody, for example when participants lowered their speech volume, or the rhythm or intonation got slower. These moments were noted in second intervals. After identifying the silent moments within the sessions, the context of the silent moment was analyzed by the theme of the conversation as well as where these moments started and ended.

Next, the 6th therapy session was focused on in more detail. The selection of this session was based on all the three sources of data (therapeutic conversation, the ANS measurements and SR interviews), as well as the number of silences. In this 6th therapy session 39 moments met our criteria for the silent moments, and their duration varied from a few seconds to tens of seconds. Most of the silent moments (about 85%) in the therapy sessions occurred when: 1) the discussion topic was the possible divorce, 2) the couple talked about conflicts or disagreements in their opinions or 3) the couple were reflecting on their own thoughts or emotions. We decided to concentrate on moments which included discussion about the possible divorce and combined all three sources of the data. Two particular episodes were selected: i) Episode 1 at session time 02:50-05:36, which contained five silent moments. This episode was also selected for SR interview and the criteria for the selection were Heli's emotional expressions, Heli's and Lasse's EDA responses and the theme of the possible divorce, ii) Episode 2 at session time 43:12-45:10, which contained four silent moments. This episode was also selected for SR interview and the criteria for the selection were Lasse's visible emotional response, Lasse's and T2's EDA responses and the theme of where the children should live.

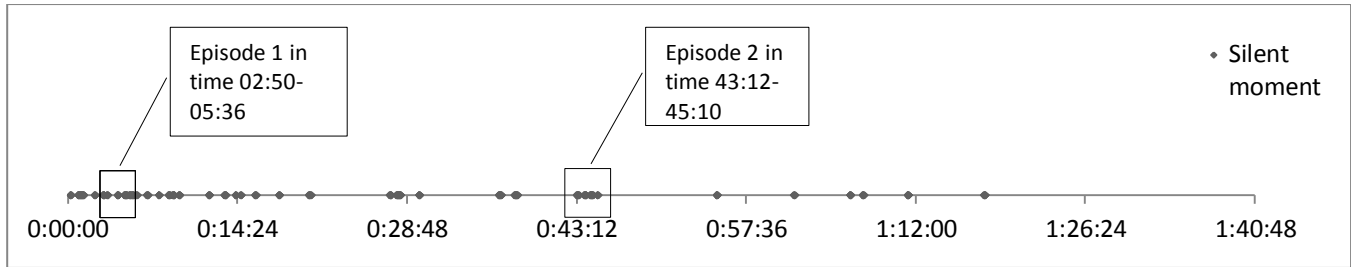


Figure 1. The silence map shows the silent moments of the 6th session. Selected episodes 1 and 2 are marked in the figure.

First all these sources of data - therapeutic conversation, the ANS responses and SR interviews - were analyzed separately and then integrated to increase the understanding of the silent moments by using this particular couple therapy case. We analyzed changes in the ANS during the silent moments with the NeuroLabs program. The transcriptions from the 6th therapy session and SR interviews were utilized in various stages of the analysis. The selected episodes were translated into English after the analysis. Transcription marks are explained in Appendix 1 and ANS observations are also marked in the transcription.

RESULTS

Two episodes, which both contained several silent moments, are presented in this results section. Firstly the verbatim transcriptions of the selected episodes are presented, secondly ANS results are shown and finally observations from the SR interviews. Nine researched silent moments are marked with bold letters in the transcriptions and numbered in appearance order from silent moment 1 to silent moment 9.

Episode 1: Conversation related to the possible divorce

Episode 1 occurred only a few minutes after the beginning of the session at session time 02:50-05:36. Heli began to describe her feelings and thoughts toward their relationship and the possible divorce was expressed in the conversation. She started to justify her thoughts by raising the lack of common time

and the emotion of anger. She was moved when she explained her anger. T2 received Heli's words and they had a conversation with each other while T1 and Lasse were listeners. Both therapists were very attentive. Lasse looked quite passive and his eyes were on the floor during the episode except when Heli was moved, then Lasse looked at her. Heli's voice was bitter and hesitating between the silent moments, but her voice turned sad and emotional during the silent moments. Within a few minutes five silent moments occurred.

((Silent moment 1))

((The whole session's third highest peak in Heli's HR, also shown in Figure 4))

Heli: *like so it's (.) like very strongly comes to mind that*

T2: *•mmm•*

Heli: *that how like so (2) •what kind of family team we should go ahead with•*

T2: *•mm-mh•*

Heli: *•if not so•*

T2: *comes to mind that what kind of family team we should go ahead with*

Heli: *so (.) •yeah•*

T2: *that you di-divorce then or*

Heli: *yes it's have been in my mind the whole journey that why in earth I'm in this kind of relationship so*

((Silent moment 2))

T2: *•mm-mh mm-mh•*

Heli: *•if not so•*

(2)

T2: *mm (1) how you (-) you said that that the whole month has gone bad*

Heli: *well something like that*

T2: *where (.) where do you connect it that it is*

Heli: *↑I don't know where I (.) I have at least like what I have at least said to Lasse that I'm angry to him all the time*

T2: *oh really*

Heli: *↑pretty all the time (.) like (.) then then I like (.) I think like also ↑Lasse has stopped like (.) trying ((Heli looks at Lasse))*

T2: *oh really*

Heli: *that he don't anymore like (1) like try*

T2: *mm-mh*

Heli: *that it is so than when I'm angry all the time and (.) so Lasse thinks that I like nag all the time and I'm angry ((Heli looks at Lasse)) and he don't want to like try anymore that so ((Lasse rolls his eyes))*

T2: *yeah*

Heli: *it is so (.) Lasse has been less ↑work now but now Lasse has found a computer*

T2: *yeah*

((Silent moment 3))

Heli: *that we no longer have like (1) •any time together• (1) •anymore like• there is not even anymore like watching TV*

T2: *•mm-mh mm-mh•*

Heli: *•anymore like (3) that it's and° ((Heli bites her lip)) (3)*

T2: *but you said that you are angry to Lasse all the time*

Heli: *yeah*

T2: *wha-wha-what it [(-)*

Heli: *[I don't know I just like, I'm just so fed up like to that whole guy so much that*

T2: *oh really [so it's nothing to do with things what happen during the day or it's like*

Heli: *[it's like*

T2: *[basic angry or (-)*

Heli: *[well yeah it- it is the ↑ basic situation even though of course the anger come to the surface like when something happens or like*

T2: *oh really*

Heli: *or I feel that I have a reason like reason to something ↑ I don't know by myself where it*

T2: *oh really*

((Silent moment 4))

Heli: *I have thought that am I just so (1) completely sick of the situation*

T2: *•yeah•*

Heli: *or is it (.) just my way to (.) like ((Heli is moved, Lasse looks at Heli)) (1) somehow (1) process (.) the possible divorce (.) like there comes then (2) anger that (.) it would be easier to (.) handle the issue (.) even though (1) °I don't know° ((Heli is moved, Lasse looks at Heli))*

T2: *it's this kind of thing that you said that like you are angry to Lasse all the time so is it somehow a new situation or have there been such like before*

((Silent moment 5))

Heli: *•it's a new situation• ((Heli is moved))*

T2: *•oh really• (1) [yeah*

T1: *[mm*

Heli: *[•yeah•*

(6)

((Heli takes a tissue))

T2: *mm (3) mm*

Heli: *°that somehow° (.) it's like almost always present*

T2: *mm*

Heli: *present that it ((Heli is crying))*

(5)
T2: *mm*
 (3)

Electrodermal activity during silent moments 1-5

Heli had the strongest EDA responses during the silent moments as Figure 2 shows. She had stopped talking or spoke in silent prosody. Lasse and T1 also had clear EDA responses during the silent moments even though they were in the role of the listener. Their EDA levels decreased several times, as can be seen in Figure 2. T2 was actively involved in the conversation and he had many EDA responses. Congruent responses between all participants appeared in the EDA during the silent moments in Episode 1. Most however, between T1 - Lasse and T2 - Heli.

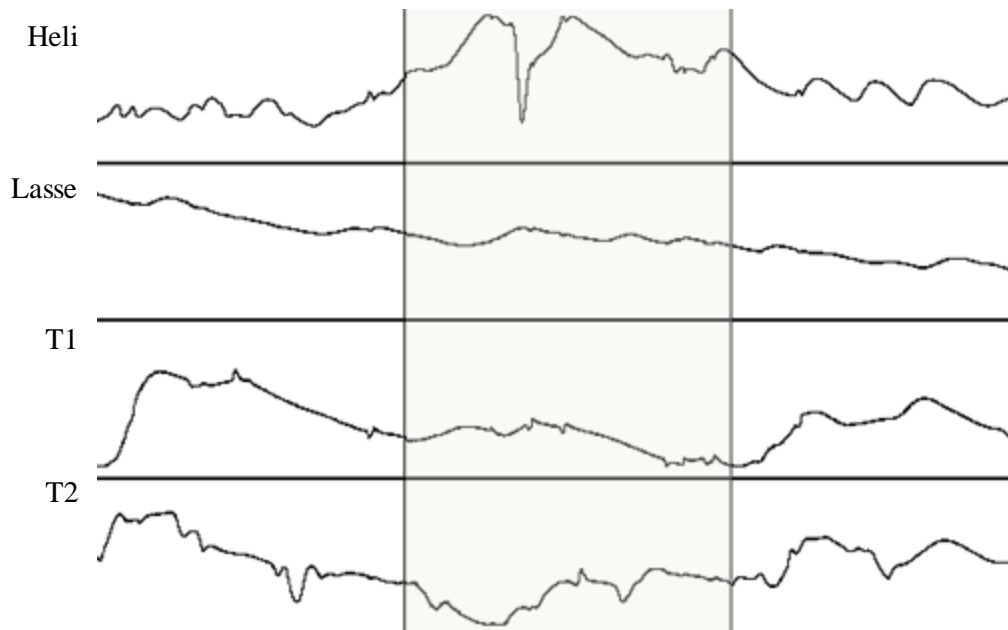


Figure 2. EDA during silent moment 4. Heli had a huge response during this particular moment. She had just wondered if “this is my way to prepare to divorce” after which she was moved. Lasse has been calm on the basis of his EDA and he also seemed passive during the episode. Both therapists had congruent responses while they listen to Heli’s speech.

Breathing during silent moments 1-5

Heli had stopped talking or spoke in silent prosody during the silent moments, so her breathing rhythm was irregular and variable. Nevertheless, her breathing changed to long inspiratory and short expiratory movements during the silent moments as Figure 3 shows. Lasse was very clearly holding his breath for approximately five seconds during the silent moments, otherwise his breathing rhythm was regular. The therapists showed a clear reduction in the depth of breathing and their breathing changed to more shallow during the silent moments as Figure 3 also shows.

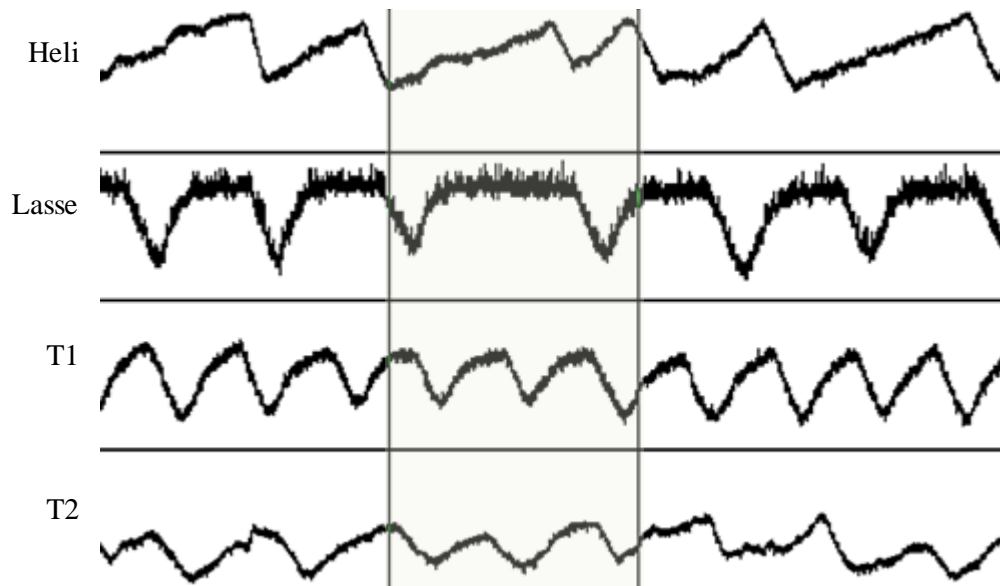


Figure 3. Breathing during silent moment 1. Heli's breathing rhythm was irregular and she had a deep inspiratory breath during the silent moment. Lasse held his breath over 5 seconds and the therapists', especially T1's, breathing was shallow.

Heart rate during Episode 1

Heli's HR responses were the largest and also her HR level was clearly higher than others as Figure 4 shows. Additionally, her third highest HR peak was found inside this episode. Lasse's, T1's and T2's heart rates were at the same level and they also had simultaneous HR responses throughout the episode. All participants' HR responses were simultaneous and similar several times during the silent moments in this episode.

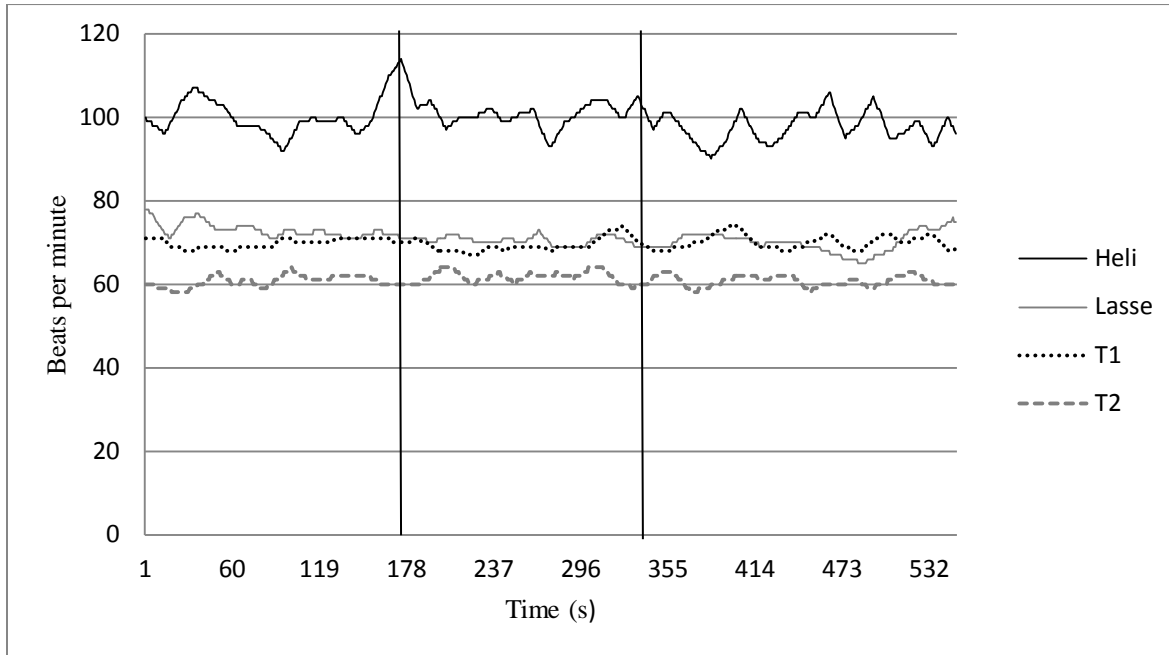


Figure 4. HR during Episode 1. Heli's HR level was clearly higher than others and her reactions were larger than others too. All participants' reactions were similar and simultaneous.

Stimulated Recall Interview comments

Heli commented that she felt tired, sad and bitter at the beginning of the therapy session but these feelings changed to sorrow when she talked about her feelings out loud. Heli hoped that Lasse really heard her for the very first time and this idea was developed in the SR interview. Lasse commented that he noticed the feelings of sadness and differences of opinion in Heli. He had consciously decided to stay quiet because he wanted to explore his own thoughts.

The therapists often stopped the video recording in the SR interview to make a comment right after silent moment had occurred. T1 reported that he was both surprised and sad about how the couple's situation had changed. He became interested when Heli explained her feelings of anger. T1 said that he wasn't pleased with the way Heli described the couple's situation, he commented on her use of "blaming speak". However, T1's annoyance reduced when he noticed Heli's sadness. T1 reported that he had a relaxed feeling in his body during the episode. T2 also reported that he was surprised about the couple's situation because he thought they had had a good conversation in the previous therapy session. T2 said that he felt the atmosphere had risen during the episode and the highlight was when Heli began to speak about the possible divorce. T2 explained he felt as though he was "gasping for breath" as he listened to Heli's speech. He said that he winced when Heli mentioned

her feelings of anger and he believed that this wince “could appear somehow as nerve activity”. T2 felt physically calmer after he had clarified the couple’s situation.

Episode 2: Returning back to possible divorce and where the children should live - issue

Episode 2 occurred in the middle of the therapy session at session time 43:12-45:10. So far, the session’s atmosphere had been lighter and the conversation was no longer directly related to the possible divorce. The clients began making contact with each other and they were smiling as they were speaking just before the start of Episode 2. At the beginning of Episode 2, all participants were warmly discussing Heli’s and Lasse’s children after which, T1 returned the conversation to the possible divorce by asking a question about life arrangements in the event of divorce. Heli answered that the children would live with her while Lasse said that he couldn’t live without them around; he was clearly moved. Heli noticed Lasse was moved and they glanced at each other a few times. Lasse had one of their children on his lap during this conversation. Within few minutes four silent moments appeared.

((Silent moment 6))

Heli: @so there is a lot to do that we manage to raise you to adulthood@ ((sweet talk to child))
 (.) if you have such a mom and dad so (.) there is a little bit more to do ((Heli gives a laugh)) (1) ° that there is°
 (3)

T1: well if you think about the other radical [option which you just [talked about that if you (.) there comes that kind of new reorganization that you no (.) longer live under the same roof so ho-how do you organize (.) [that life ((Lasse shakes his head))

Heli: [mm [mm
 [mm

T1: what is the picture you have in mind how it would go

((Silent moment 7))

((Heli’s highest peak during the episode 2 and also shown in Figure 7))

Heli: well I thought that (.) I would think that children would live with me **and (3) and and (7)** ((Lasse starts to pet the child on his lap)) °so that ° (.) ((Heli and Lasse glance at each other)) ↑Sometime Lasse spoke that well two children to him and two children to me I said that I would never agree to that I think that is so wrong toward the children so (2) so so children must be able to live like all together I so my opinion is that that would be just the most worst of all (.) worst of all what could happen that children would be separate [from each

((Silent moment 8))

other (1) **from each other and**
(4)

T2: [mm

T2: °.hhh yeah°

Heli: °so it is so° (.) **but that is how I (.) would see that thing that (1) that that (1) all children**
would live with me
(3)

T2: what you Lasse would think such (.) an option that you would decide to move apart how it
how-how those work out in your mind (1) °those things°

Lasse: well yes in my mind thing would still go so that it would b-be the two and two

T2: oh really

((Silent moment 9))

Lasse: **so that I don't want the day that there would not be [children (1) living with me that way**
like there around

T2: [yeah

T2: yeah (.) [yes

Lasse: [°however° ((Lasse is moved))
(4)

Electrodermal activity during silent moments 6-9

Heli's EDA level was usually very high before the silent moments because she was speaking most of the time. However, her EDA level often decreased during the silent moments. Lasse also displayed responses but his EDA level didn't vary much. One special moment drew our attention during Episode 2. This was when Heli stated her opinion that in the event of divorce their children would live with her. Lasse started to pet the child on his lap simultaneously; this can also be seen as a wave-like motion in Figure 5. The therapists EDA responses and levels had more changes than in Episode 1, especially T1 who appeared to be more responsive. Some of T2's EDA responses occurred during speeches or intended speeches. Also in Episode 2, congruent responses appeared in the EDA readings between all participants during the silent moments.

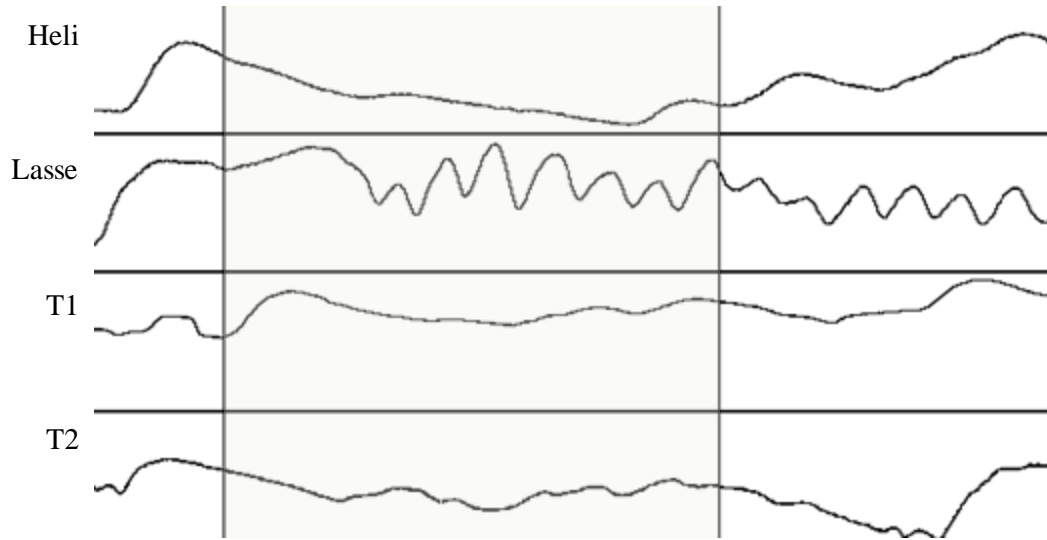


Figure 5. EDA during silent moment 7. Each participant's EDA responses can be seen while discussing the issue of the children before the silent moment. Lasse petted the child on his lap during the silent moment and Heli's EDA decreased after she expressed her opinion.

Breathing during silent moments 6-9

Heli held her breath, her breathing cycle slowed and shallow breathing occurred during the silent moments even though she was speaking, as Figure 6 shows. Lasse was very clearly holding his breath over the silent moments despite the fact that the child on his lap changed his regular breathing curve. Lasse held his breath for almost 10 seconds as can be seen in Figure 6. T1's breath showed no changes during the silent moments whereas T2 held his breath or took shallow breaths during the silent moments.

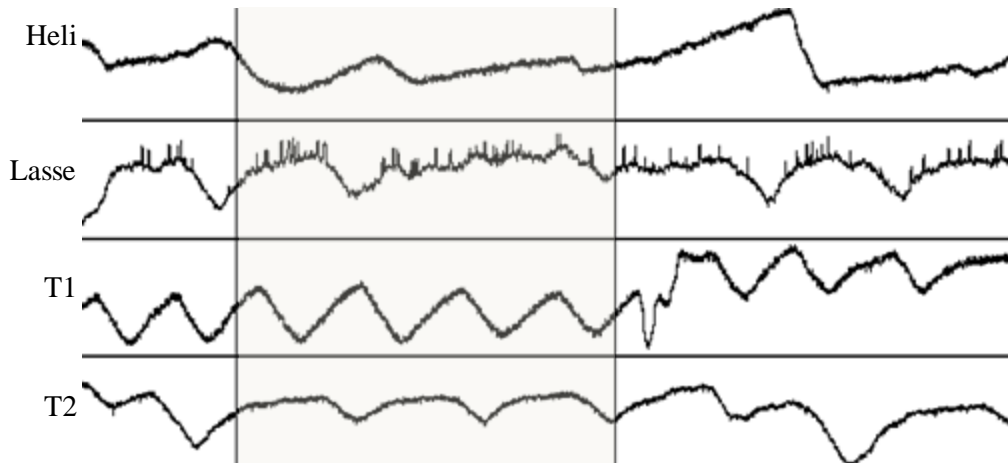


Figure 6. Breathing during silent moment 7. Both clients held their breath for a long time when discussing sharing the children. T1's breath showed no changes whereas T2 took shallow breaths during the silent moment.

Heart rate during Episode 2

Heli's HR was clearly at a lower level than in Episode 1. She had one large peak in HR when they discussed sharing the children. Lasse's HR rose at the beginning of the episode but the level decreased during the silent moments. T1's HR rose steadily at the beginning of the episode but it began to decrease after he asked a question about life arrangements in the event of divorce. T2's HR was changing quite often. Congruent HR responses can be seen especially between Heli's, Lasse's and T2's HR: simultaneous increases and decreases were visible.

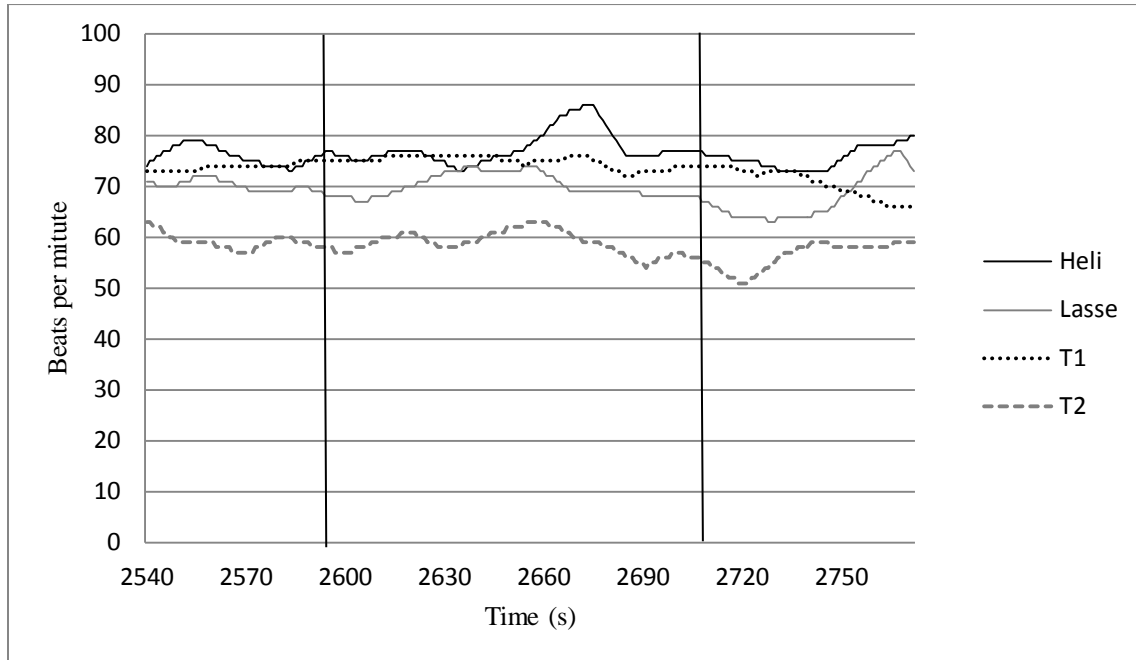


Figure 7. HR during Episode 2. Heli's HR has decreased to a lower level than in Episode 1. Simultaneous increases and decreases were visible between the participants' HR.

Stimulated Recall Interview comments

Heli said she felt tension in her body when she spoke about the possible divorce. Heli noticed that the child's presence brought positivity and strong desire to fight for the relationship; this idea was born in the SR interview. Lasse explained that he felt sad in both the session and in the SR interview, and he cried a lot during the interview. The therapists often stopped the video recording in the SR interview to make a comment right after silent moment had occurred. T1 reported that he noticed the child's presence changed the atmosphere during the session and he saw that the child gave an opportunity for the clients to talk about the possible divorce in a different way. He felt calm even though they talked about very difficult issues. T2 also felt that the child's presence brought a more positive atmosphere to the session. T2 explained that he felt compassion toward Lasse when he noticed that Lasse was moved.

DISCUSSION

The aim of this study was to investigate how different voices can be seen in the silent moments during therapeutic conversation, from the participants' psychophysiological data (ANS) and participants' thoughts and feelings in SR interviews. Through these sources of the data, we tried to understand the role of the silent moments in the multi-actor therapy dialogue. A part of our study was also to observe whether synchrony can be found between the participants during these silent moments. Two episodes, with several silent moments, were selected for multi-method analysis. We focused on the silent moments including conversations about the possible divorce and issue of the children.

Our results showed that speech was only one way to participate in therapeutic dialogue. The participants reacted bodily and were thus actively involved in the therapeutic conversation during the silent moments, even though they didn't speak or seemed externally passive. Our results also showed that the silent moments had important roles in the relational conflict situation. They provided a rhythm and carried the conversation, helping the participants to discuss fundamental issues in many ways. Finally our results also showed that synchrony occurred between participants during the silent moments. These moments of synchrony were momentary and lasted a few seconds.

The silent moments often appeared in the conversation after something meaningful was said. For example, Heli wondered before silent moment 2 that "*- why in earth I'm in this kind of relationship so*" and before silent moment 7 she explained that "*well I thought that (.) I would think that children would live with me- -*". They also appeared several times after the clients were moved or became emotional as Gendlin (1996) also found. For example, Heli was moved after she said that "*it's a new situation*" at the beginning of silent moment 5. We see that these silent moments were somehow relevant for the participants. This can also be seen in their ANS reactions. Breathing pattern observations demonstrated that all participants reacted in some way during the silent moments. This can be seen most clearly in Lasse's breathing, because he holds his breath during almost every silent moment. The therapists also reacted by changing their breathing pattern: shallow breathing was typical for them during the silent moments. We see that breath holding is related to surprise (Feleky, 1916) and shallow breathing is related to high anxiety (Blechert et al., 2006) and those feelings were also described in the SR interviews. The silent moments' relevance was also seen in accelerated HR responses which refer to high SNS activation, and can be connected to some emotions like fear (Aue et al., 2007; Baldaro et al. 1996) and anger (Hamer et al., 2007; Schachter, 1957). As confirmation to this,

Heli discussed feelings of anger during the therapy session and in SR interview.

The Stimulated Recall interview opened the channel to the participants' inner dialogue and the interviews provided extensive information about their thoughts and feelings during the therapy session. They also contained a lot of reflection. This information largely supported our interpretations or gave meaning to the occurrences during silent moments. One example of this was when Heli said in the SR interview that her feelings of anger changed into sorrow during Episode 1. This change can also be seen by the decrease in her EDA level which may be related to the emotion of sorrow (Gross et al., 1994; Rottenberg et al., 2002). Also T2's "gasp for breath" -moment can be seen in all his ANS responses right before silent moment 1. We also found that the therapists often stopped the video recording during the SR interview to comment immediately after a silent moment. This can refer to the relevance of the silent moments or to fact that this was also a natural point to pause the video extract.

In our study, we suggest that the silent moments created rhythm and carried the conversation, giving the participants an opportunity to continue the conversation, even though the topics were difficult to deal with. Based on our results, participants had a chance to react and think which is necessary when discussing these kind of fundamental issues. The fact that the clients didn't argue can be attributed to the calm conversational rhythm, even though they both showed bodily arousal. MacGregor, Corley and Donaldson (2010) have also found that the listener hears and takes better account of things said in silent prosody. Heli expressed many meaningful issues with silent prosody. Afterwards in SR interview she stated that she hoped Lasse really heard her for the first time. We suggest this was one of the productive elements during the conversation.

There was noticeable interactional and embodied synchrony between participants during silent moments and it can be seen that the participants shared at least some kind of common experience with each other. In several silent moments, the therapists lower their voice's pitch to answer and show empathy toward the clients. For example, in silent moment 1 Heli said "*that how like so (2) °what kind of family team we should go ahead with°*", T2 answered emphatically "*°mm-mh°*" and Heli continued "*°if not so°*". This kind of speech synchrony between the therapist and the client is related to a good therapeutic alliance, as well as the client's experiences of being heard (Seikkula & Arnkil, 2007). In our study we observed that synchrony was more momentary and lasted only few seconds as Altenstein et al. (2013) and Stern (2004) have found. Moments of synchrony were related to the different elements of dialogue, for example embodied responses and inner thoughts, which were discussed in the SR

interview. As Ramseyer and Tschacher (2011) have presented, synchronicity has an effect on good therapeutic alliance and hence to the effectiveness of therapy. As Seikkula et al. (in press) have presented, it can be usual that one therapist will synchronize more with only one of the clients in the couple therapy context. We also found that two therapist-client pairs formed during Episode 1 when i) T2 and Heli had a conversation with each other and when ii) T1 remained silent as a “support” to Lasse. We also found synchrony between the therapists’ or both therapists’ and Lasse, mostly in EDA and HR responses during Episode 2.

There are some points that should be taken into account when evaluating the results. Bakhtin (1984) has presented that our mutual dialogue is influenced by inter alia life experiences and traumas. We found that Heli’s embodied reactions were often the largest of all participants, and it can be seen that the experience of the intimate partner violence may affect her reactions. Also Lasse’s depression medication during the measurement session may have affected to his both emotional and embodied reactions. There are needs for further studies and some points of the ANS measurements should also be taken into account. We noticed that speech, attended speech and body movements affected the EDA level to such an extent that the changes in EDA can’t be only attributed to the activation of the SNS. The analysis of the breathing during the silent moments was the most interesting source of information as we had expected beforehand: the breathing belt worked best and provides the most reliable information when the participants didn’t speak. HR was also a useful measure of the reactions and it also showed the level of the participants’ reactions. All ANS measurement equipment was very sensitive to body movements and that’s why all distractive elements should be minimized in the further studies. Nevertheless, these ANS measurements weren’t sufficient enough to describe what happened during these moments.

The couple is still in a relationship at the moment of writing this paper. It can be assumed that this studied 6th therapy session had some kind of important role in changing the couple’s situation. The communication between the couple has become closer and the possible divorce hasn’t been a conversation topic in later sessions. We see that the participants were able to handle this relational conflict through their outer, inner and embodied dialogue and they have managed to create together a new understanding to resolve the situation. The emergence of the silent moments has played a significant role in this change.

This research showed that both the therapists and clients participated as fully embodied human beings in the therapy sessions and its silent moments. One important aim in the Relational Mind project

is to find the relevant moments of the interaction as well as their impact on the outcome of the therapy. We suggest that in our study, the silent moments were those kinds of relevant moments. We see that these aspects would be useful for all therapists to take into account. However, we can't permit conclusions for clinical practice. There is still a need for further studies, more cases and the development of more ways to analyze this kind of multi-method data in order to make more reliable conclusions about silent moments.

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APPENDIX 1: Transcript notation

Symbol	Meaning
and (1) then	Numbers in rounded brackets represent pauses hand-timed in seconds.
and (.) then	Point in rounded brackets are ‘micro-pauses’ of less than 0.2 seconds.
((weeping tears))	Double rounded brackets contain relevant contextual information added by the transcribers.
I think- I think so	A single dash following a word or letter(s) indicates an abrupt cut-off in the flow of speech (stammering).
<u>underlining</u>	Underlining means emphasis.
[and well on the whole	Overlapping utterances are marked by single square brackets.
°and it feels bad°	Degree sign indicates significantly lower volume than in surrounding speech.
@you get that bad feeling@	Symbol @ indicates a change in the speaker’s voice.
.hhh	This word mean inhale between words
↑anymore	Upward-pointing arrows indicate rising intonation.