

FOCUSING and HEART RATE VARIABILITY (HRV)

Focusing Project and Pilot Project

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Introduction

When I started to learn Focusing, I soon realized that Focusing does something special to me. At first, I couldn't name it, but later I found out that this special thing had something to do with: I want to do Focusing again and again and again. After a few days without Focusing, I could feel an intense need to do Focusing again. This fact actually worried me for a while. It was the time when I finally asked my teacher: „Could I become addicted to Focusing...?“

I remained curious, and eventually I found the more accurate reason for my need to keep doing Focusing sessions: There was something about the feelings that arose after Focusing. I discovered that I regularly felt different after the session than before the session. It wasn't always the same feeling, but I regularly felt somehow good, either really very good or at least slightly better than before. There was a greater variation of possible feelings, e.g. I felt pleasantly surprised after the Focusing, I was inwardly amazed about my Self, I felt gifted with unexpected insights that helped me understand myself, maybe I felt calm, I felt content, I felt at peace with myself, I felt at ease or just fine. And even if I had a difficult time during the session, afterwards I had the feeling that something important and helpful had happened and I was grateful for it. I felt like I got to know myself a bit better through the Focusing, I felt somehow empowered and it felt like I grew a bit inside, the mind enlarged, I realized connections between inner sensations I wasn't aware of and I would have never thought they could be connected. Sometimes it was as if I had gained a little more of who I really am. I liked and still like that feeling. The last point is perhaps the most important of all the above for me.

As a metaphor Focusing feels like a kind of special and very personalized fertilizer to me. I feel like I cannot only grow a little better I can also grow a little faster with Focusing than I would do without Focusing. And I can even choose in which fields in my life I want to grow and which area I would like to fertilize by inviting a special area of my life as a starting place for the Focusing session. Focusing gives me the opportunity to explore any inner area that I would like to get to know better. That feels like a magic key to myself, like a special and personal key to my own inner wonderland. With Focusing I get access to my inner and so far unknown processes and meantime, I don't only assume but I am sure that something about the invited area will change. It will change in such a way that after Focusing I feel at least a little better and sometimes much better about the starting place. Sometimes I can feel the change immediately and sometimes only after a longer period of time. Even if I cannot see the connection between the process and the starting place, something will change for the better. No wonder, that I liked and still like to come back to Focusing again and again.

I stayed interested in this "after-Focusing-feeling" that I kept experiencing. It was and still is a reliable experience. Yes, I know, I am describing my own and personal experience and feelings and it could be different to other people. But I heard from other people that in general, they would experience something similar. So, I was interested in whether it would be possible to make this "after-Focusing-feeling" visible, to find somehow a way to objectify it. I wanted to see if my inner sensing of how I feel after Focusing could be translated somehow in the physical body language. Well, it was already clear to me that it will, for sure, but would it be able to show it, kind of prove it for others who aren't sure about that and hadn't experienced it by themselves?

In my professional field, and not only there, are people who are more likely to be motivated to make an attempt with Focusing by "evidence" than by a personal statement.

My plan

The Heart rate variability is one kind of biomarker and it seemed to me to be a suitable instrument to achieve my aim. It would be interesting to see whether there is a real and measurable change in any physical value when the HRV is measured before and again after a Focusing session.

I planned also to give the HRV results to a professional statistician to evaluate if there is a measurable statistical significance between measured HRV values before and after the Focusing sessions.

Since the sessions are all online it would be unrealistic to get HRV recordings from my partners, so I had to be satisfied to do all the measurements on myself, no matter if I would do partnership Focusing or guiding a Focusing session.

I set one necessary requirement for my focusing partners and that was that they had to have completed at least the basic training in Inner Relationship Focusing. In that way I wanted to assure a certain level of experience with Focusing.

About Heart Rate Variability (HRV)

The HRV shows the balance or imbalance of the autonomous nervous system and says something about the general health of a person at this moment. It is measured by electrocardiogram and then analyzed by a more complicated software. It is an acknowledged method and often used in studies on medical research.

HRV is defined as the physiological fact of the variation of the time interval between one heartbeat and the following heartbeat measured in milliseconds. This continuous variation has physiologically something to do with the Nervus Vagus, the most important nerve regulating the parasympathetic part of the autonomous nervous system.

What I did

I have learned how to use HRV in an osteopathic course and I bought the equipment to apply it in my practice. Therefore, I was soon able to start my first try with Focusing and HRV. I was very delighted with the first result! It seemed worthwhile to continue and check that this first result was perhaps not just an excellent result by chance, but could be repeated.

That in fact could have been since the HRV measurement is influenced by a number of different factors such as daytime, food intake, sleep, temperature, fitness level, posture, age, gender, medication as well as stress, recovery and some others.

I followed the recommended procedure for every session to keep the conditions as equal and reproducible as possible:

Before each session I lay down for 7-10 minutes, then I did 10 min ECG recording with a Bittium Faros 180 device on myself while I was lying still.

Next I did the session; either a partnership session both directions, that means both partner did Focusing and accompanying or a guided session with a client.

After the session I lay down again for 7-10 minutes before taking the second ECG recording on myself for 10 minutes.

Finally, I used the Kubios Software Premium 3.5.0 to make the evaluation of both ECG recordings on my PC.

It looks like that:

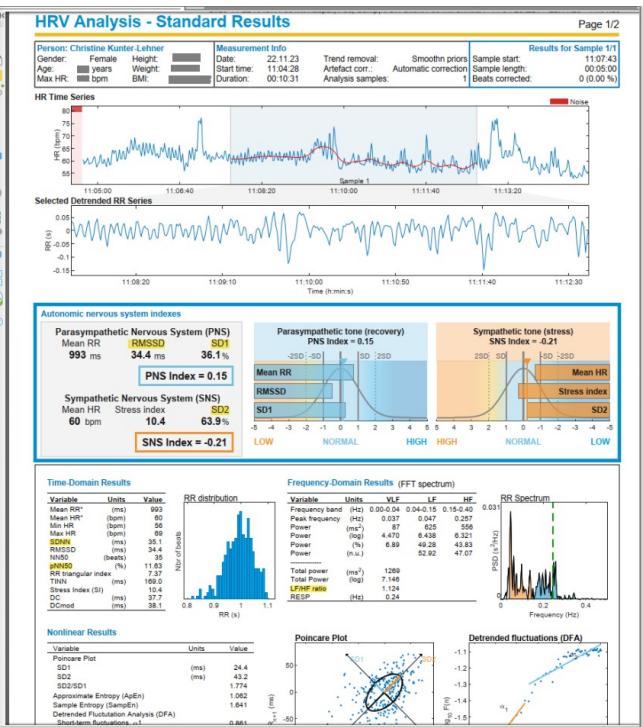
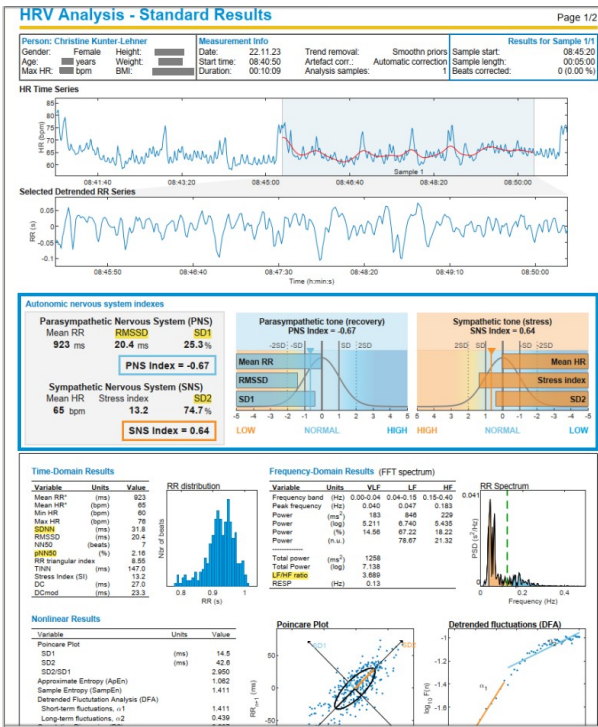


Abb.1 Example of HRV analysis before (left side) and after (right side) Focusing.

The Kubios Software evaluates five minutes out of ten recorded minutes.
 For my project I compared the following six most common HRV values:

- RMSSD: the most correlated value to Nervus Vagus
- pNN50: percentage of time intervals between heart beats higher than 50msec
- SDNN: standard deviation, a statistical value
- SD1: related to parasympathetic
- SD2: related to sympathetic
- LF/HF: measures the sympatho-vagal balance

The most important and meaningful value is RMSSD because of its direct relationship to the parasympathetic nervous system.

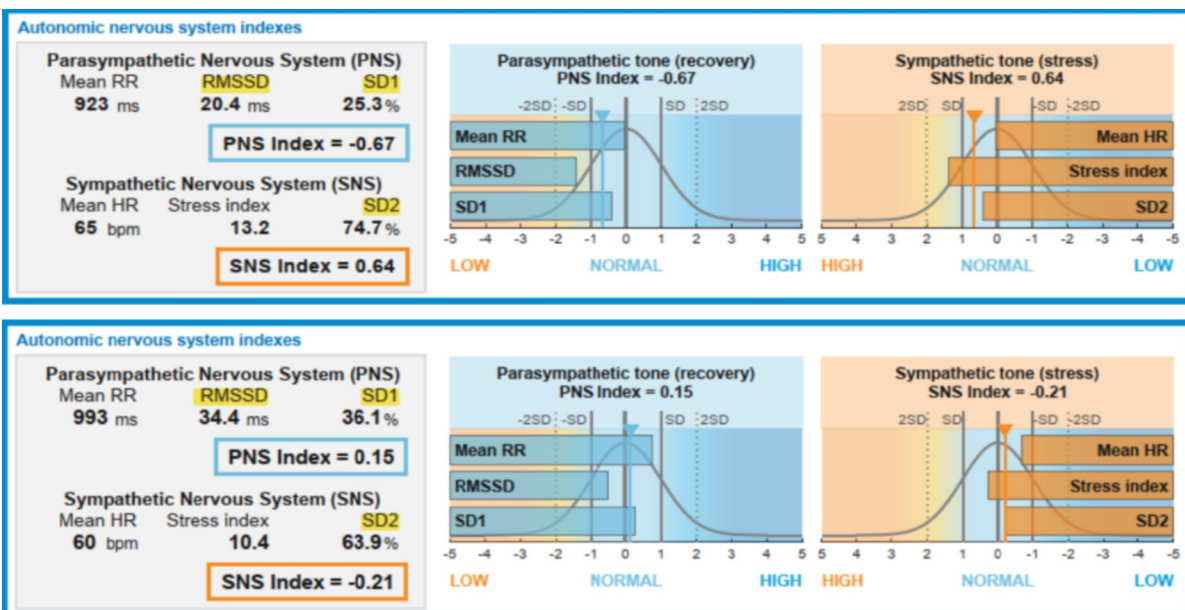


Abb.2 Ideally, all blue bars, especially RMSSD and orange bars are within the normal range or, even better, close to the 0 line;

I made HRV recordings of 35 partnership Focusing sessions both directions, before and after each session, i.e. 70 HRV recordings in total. For those sessions I had three main partners and five all together.

With partner A I did eight sessions, always at eight in the morning, which is the suggested best daytime to get a reliable HRV, because it is not yet too influenced by the day's events.

With partner B I did seven sessions, mostly in the evening.

With partner C I did eighteen sessions always at seven in the evening,

I did only one session each with partner D and partner E.

I also did HRV recordings from guiding client sessions, before and after each of the 12 sessions. i.e. 24 HRV recordings. Each session was with a different client, lasted fifty minutes and they took place at different times of the day.

I did only one session a day, either I did a partnership session or I guided a client session.

Overview in numbers:

partnership sessions: n=35

5 different partners, 3 main partners

partner A: 8 (40 min each, always at 8 a.m.)

partner B: 7 (40 min each, mostly in the evening)

partner C: 18 (30 min each, always at 7 p.m.)

partner D: 1 (30 min each)

partner E: 1 (30 min each)

guiding a client session: n=12

12 different persons (50 min, at various daytimes)

Statistical Results

Using the Kubios Software evaluation, I could already see after a few recordings that the HRV values were not only once but regularly better after Focusing.

According to my plan I hired a professional statistician to calculate statistical relevance. She used the generally assumed significance level of 0.05. This means that if the calculated p-value is below 0.05, it is considered statistically significant.

Statistical relevance says nothing about how large the effect found is, but means that the difference is not simply random.

The statistician separately calculated the partnership sessions and the guided sessions and as expected there is a difference between those two groups.

Result for the partnership sessions:

All six values changed in a highly significant manner.

Result for guiding the sessions:

One value changed in a highly significant manner and two values changed in a significant manner.

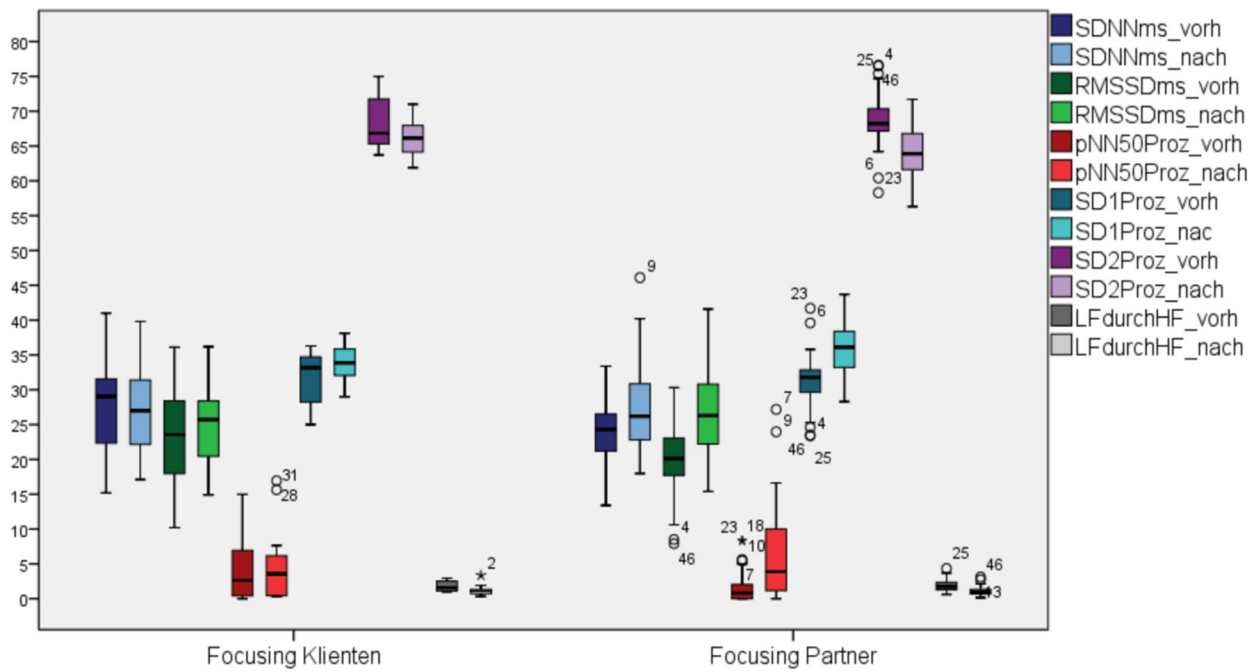


Abb.3 Boxplot clients and partner; color-couples: left darker color shows before, right brighter color after Focusing

		Gepaarte Differenzen				T	df	Sig. (2-seitig)	
		Mittelwert	Standardabweichung	Standardfehler des Mittelwertes	95% Konfidenzintervall der Differenz				
					Untere				Obere
Paaren 1	SDNNms_vorh - SDNNms_nachh	-2,7128	6,0116	,8769	-4,4778	-,9477	-3,094	46	,003
Paaren 2	RMSSDms_vorh - RMSSDms_nachh	-5,6213	6,8925	1,0054	-7,6450	-3,5976	-5,591	46	,001
Paaren 3	pNN50Proz_vorh - pNN50Proz_nachh	-3,5498	6,2278	,9084	-5,3783	-1,7212	-3,908	46	,001
Paaren 4	SD1Proz_vorh - SD1Proz_nachh	-4,0213	4,5973	,6706	-5,3711	-2,6714	-5,997	46	,001
Paaren 5	SD2Proz_vorh - SD2Proz_nachh	4,0277	4,5876	,6692	2,6807	5,3746	6,019	46	,001
Paaren 6	LFdurchHF_vorh - LFdurchHF_nachh	,717702	,952637	,138956	,437998	,997407	5,165	46	,001

Abb.4 Partnership Focusing; high significant change of all six measured HRV values

		Gepaarte Differenzen				T	df	Sig. (2-seitig)	
		Mittelwert	Standardabweichung	Standardfehler des Mittelwertes	95% Konfidenzintervall der Differenz				
					Untere				Obere
Paaren 1	SDNNms_vorh - SDNNms_nachh	-,4778	5,7412	1,9137	-4,8909	3,9353	-,250	8	,809
Paaren 2	RMSSDms_vorh - RMSSDms_nachh	-3,0889	6,4110	2,1370	-8,0168	1,8391	-1,445	8	,186
Paaren 3	pNN50Proz_vorh - pNN50Proz_nachh	-1,6178	3,8985	1,2995	-4,6144	1,3788	-1,245	8	,248
Paaren 4	SD1Proz_vorh - SD1Proz_nachh	-3,4444	3,2837	1,0946	-5,9685	-,9204	-3,147	8	,014
Paaren 5	SD2Proz_vorh - SD2Proz_nachh	3,4444	3,2837	1,0946	,9204	5,9685	3,147	8	,014
Paaren 6	LFdurchHF_vorh - LFdurchHF_nachh	,895556	,718550	,239517	,343229	1,447882	3,739	8	,006

Abb.5 guiding Focusing: one high significant, two significant and three values without any significance

Conclusions and Discussion

First and important is to emphasize that this result only applies to myself, as I carried out all the measurements on myself. Therefore, we must not and cannot generalize it.

One might assume that we would get similar results with other Focusers at a certain level of experience, especially because people report from positive feelings after Focusing in general. However this needs to be proven. I would assume that the more experience someone has with Focusing or also with other methods of inner mindfulness, the more likely it is that their HRV will improve significantly after a focusing session.

Nevertheless it definitely turned out, that my own after-Focusing-feeling has a good reason and that in fact there is a clear and even measurable physical evidence for it.

In each partnership Focusing I was once the Focuser and once the Companion and in the client sessions I did only the guiding. If you agree that guiding a session is more similar to accompanying a session than to Focusing itself, we might assume that Focusing itself will have bigger effects on HRV than guiding or accompanying, since the values changed much more after partnership Focusing than after guiding a client session. This is what I would have expected since in Focusing, you would spend your attention primarily with all of yourself and your body sensations while when guiding a session your attention is mainly with the Focuser and only a smaller part of your attention stays with yourself.

There are further reasons for the unsurprising less clear results on guiding a session. At first there was a smaller group of twelve people and second the daytime of the sessions was very different. Third I just started with learning how to guide Focusing sessions. That is why I am convinced that HRV values will also change more clearly and more significantly with guiding a session when the guide has several years of experience in guiding. I think the changes would be clearly better than in this project and still not be the same with Focusing.

Since in partnership Focusing all six measured HRV values changed in a highly significant way, we can say, that Focusing has definitely changed the physiology of my body in a good direction.

A high HRV is generally considered a sign of health. This means that the autonomic nervous system is better balanced, which in turn means that it can do its job more efficiently and successfully. All functions controlled by the autonomous nervous system are improved, e.g. sleep, immune system, anti-inflammatory function, heart function, digestion, regeneration, to name just a few of the most important.

We don't know how long this post-Focusing-effect lasts, but what we can say with certainty is this: If I do Focusing again and again, I keep creating the right conditions for the self-healing powers – Gendlin would probably say for the Life-Forward Energy – to support and establish health.

Furthermore interesting

At one point, I was ill with Corona virus and I couldn't work in my practice because it would have been too physically demanding. But I was still just able to do Focusing. Interestingly, my HRV values also improved significantly after this partnership session. So, if you are really sick: try to do Focusing! It will probably strengthen your health.

I also guided two client sessions during sick leave and even then the most important value RMSSD improved both times. I excluded those three recordings from the statistical calculation because the starting values were quite bad and the general conditions were not met.

From all the recorded sessions it happened only twice that the HRV values got worse after a Focusing session:

One was a partnership session and I may have eaten quite well and have drunk enough coffee directly before the session, which I avoided in all other sessions. That could have influenced the HRV. This session is excluded from the statistic calculation because of not having respected the rules.

The other one was a guided session and I was not the guide but the Focuser. My process in this session went very deep and brought up very painful memories and insights about my father. I was aware of them since my childhood, that means for decades, but I never felt it so deeply with my heart and the whole body. In this session, my body showed me how much these circumstances with my father have affected my entire perception and experience throughout my life. After the session, I realized that I had stumbled upon something really important. I was amazed that after so many years of self-awareness, something known can turn into something not-known in that deeper aspect and could become such a new big thing. Immediately after the session I felt calm, perhaps superficially calm and very grateful for this important discovery I had just made. I couldn't feel any identification with anything and yet at the same time something deeper inside perhaps already felt a kind of small irritation and felt affected. I only really became aware of this the next day and it took me about three more days to digest these new insights. Perhaps the HRV "knew" this already before "I" did. I have no other idea for explanations. This session is also excluded, I didn't explore that kind of session because I have had too few of them, but I mention it because of its interest.

I learned that it is helpful to rest a while before the sessions. I intended to keep this up, I do it at least sometimes.

Regarding my concerns of becoming addicted to Focusing, I would say, from the perspective of more than two years later, that probably there was a part involved. There was something in me that wanted me to use this newly discovered special and individualized fertilizer called Inner Relationship Focusing for faster inner growing. Since I have learned that everything, including inner growth, has its own pace and can be fertilized, but also not endlessly, it has become smaller, but it is still there.

My hope

I hope that someone would take up the idea and take HRV measurements on different people before and after a Focusing session. This would prove the apparently very clear improvement in HRV through Focusing and would enable a more general statement to be made. This could contribute that Focusing can reach even more people around the world.

Thanks

I would like to sincerely thank all my teachers who led me through physiotherapy and osteopathy to Inner Relationship Focusing. They all taught me different things from different aspects about what is somehow the same life. All that I have learned interacts, complements each other and contributes to my current understanding of the human being, and this understanding is constantly growing and changing.