

The hands of the osteopaths
Thinking fingers
Their special training

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Eidesstattliche Erklärung

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Dezember 2008

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Abstract

The study at hand deals with the following questions: How can osteopaths train the tactile sense of their hands and subsequently sharpen their perception in such a way that they develop *thinking fingers*? Which support do they get, which obstacles do they have to break through?

A qualitative method in the form of guideline-supported, understanding interviews was chosen and seven osteopaths were interviewed.

The framework for the results are the interpretation of Sutherland's *thinking fingers*, a term that stands for the dexterity of osteopathic fingers, on the one hand and psychological basics of the perceptual process, on the other hand.

In the chapters dedicated to results, first of all the role of the hands over the course of many years is discussed. A broad range is covered from childhood with its specific "hand-experiences", via pre-osteopathic training and its respective demands on the fingers right up to the osteopathic training.

In the actual main chapters of this paper, called osteopathic training, the main questions of the author shall be answered. There are 5 basic approaches:

1. The osteopath has to work on himself ("health care") and can prepare himself and the therapeutic situation.
2. Mechanisms of perception (attention) and of perception measuring (e.g. description) are of great assistance and are the basis for communication about what has been perceived.
3. Training and gaining knowledge are of most importance for osteopaths.
4. Principles such as self-confidence, joy, motivation and affirmation are important.
5. Colleagues and lecturers are important companions; they convey respect, openness, joy and offer support.

The amazing "end product" are the *thinking fingers* that master the "art of communication" with the tissue.

The possibly most striking result of this paper is that through the perceptual training osteopaths come back to a "natural, immediate perception", because they develop fingers which are able to smell, hear and taste additionally to feeling. A gift that is called *sensing*.

Silvia Hansak

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1 PREFACE

My topic: I chose “The hands“ as topic for my thesis.

They are the most important tool for an osteopath – our most important HAND TOOL. With these hand we are HANDling our patients.

I chose a topic that arose from my personal history. The topic “hands” has already accompanied me for a very long time – strictly speaking for 17 years. Then I heard for the first time about osteopathy and was instantly fascinated. At that time I did my first physiotherapy-training and my attending therapist, who did her first year of osteopathic training told my about osteopathy. She told me, that lecturer said she was pregnant – then even she hadn’t known about her pregnancy. He had simply laid his hands on her belly and “felt into her”. It was true, she was five weeks pregnant. I was amazed. From that point the fascination with osteopathic hands stayed with me and especially the amazement about what they were able to feel.

This story is a key scene for me – I can say: I caught the spark of osteopathy. From then on I was sure I wanted to do osteopathy. Full of enthusiasm I started the osteopathic training, following the words of Dr. Sutherland: „Auf geht’s, lassen Sie uns fühlen!“ (Sutherland, 2004, II, 17) [“Come on, let’s feel!“] Throughout the whole the words of Dr. Sutherland accompanied me „Thinking fingers“, *die fühlenden-sehenden-klugen-wissenden Finger.* (Sutherland, 2004, II, 181) [“Thinking fingers - the feeling-seeing-clever-knowing fingers.“]

My hands and finger developed and my sense of touch was trained according to Sutherland. I always kept my goal in front of my eyes: I wanted to have hands that were able to feel and see inside the body in order to be able to treat patients well. Those were exciting years for me. I am grateful for my training years.

I can see my way. I can see that my hands and their sense of touch and thus the perceptual cohesiveness have developed further. I know what support I received and which obstacles and problems I faced. I know my individual and very personal way, always accompanied by a big fascination.

Now I am curios for the way of other osteopaths. How were hands capable of developing such a differentiated perceptual cohesiveness? How did other osteopaths experience this way?

Here I want to immerse myself and dig deeper. Dr. Still and Dr. Sutherland used the term “digging” for their further professional immersion. I want to delve into the personal views of the osteopaths.

In consider it exciting for myself and very important for osteopaths in general to touch the topic of HANDS.

2 INTRODUCTION

The hands – THE tool of osteopaths – shall be examined further in this study.

In Sutherland this following statement is to be found: *„Zehn feinfühlig Finger... sein wichtigstes Arbeitszeug! Das halbe Jahrhundert seiner Praxis hindurch verlor diese Einschätzung nicht ihre Bedeutung.“* (Sutherland A., 2004, IV, 22) [“Ten sensitive fingers... his most important tool. Half a century of practising this estimation did not lose its meaning.”]

This study is dedicated to this *tool*.

These *ten sensitive fingers* were always interesting to the author. Crucial for her interest in fingers were various key scenes before the osteopathic training. On one hand there were reports of osteopathically working hands and their ability to feel inside the body and to see, as mentioned in the preface. On the other hand the author had the chance to see osteopaths using the cranial method during her introductory course in osteopathy. She watched trained osteopaths who gently put their hands on the chest of a child, let them remain there and meanwhile explained to the onlookers what she felt and treated. There were not movements to be seen on the hands of the osteopaths – so tiny were her therapeutic movements. For the authors, this was the start for her curiosity for these osteopathically working hands and the fascination with these hand – which has not left her ever since.

Only later in her osteopathic training the author heard a term used by Sutherland for these *ten sensitive fingers: thinking fingers*.

These *thinking fingers* are an important basic for this qualitative study. According to Sutherland (2002), this term stands for more than one adjective, which describe the abilities of the osteopathically working hands respectively fingers. The following chapter goes further into this matter.

The cranial osteopathy, developed by Sutherland, forms another basis of this study. The cranial osteopathy poses a further demand to the hands respectively to the perceptual cohesiveness of the osteopath. Sutherland says:

„Sie[die Hände] sind daran gewöhnt, mit der großflächigeren Anatomie der Wirbelsäule umzugehen. Beim kranialen Mechanismus hingegen könnte man sagen, dass Sie es vergleichsweise mit dem Mechanismus einer Damenuhr zu tun haben.“

And further: *„Bei diesem Bemühen werden Sie dazu angehalten, Ihren Berührungssinn herunterzuregeln.“* (Sutherland, 2004, II, 172)

[“They [the hands] are used to handling the extensive anatomy of the spine. However, with cranial mechanism it can be said that they are dealing with the mechanism of a lady’s wrist-watch.”]

[“During this effort you are required to tone down your sense of touch.”]

During training one learns to feel the craniosacral movement, this tiny movement, respectively motility of the cranium and the entire body.

A qualitative study with guideline-supported interviews is used, where the thinking fingers as well as the cranial osteopathy contribute with questions to the guideline. The guideline was developed from the author’s self-reflection and the study of Sutherland’s compendium.

The study draws a range from experiences of feeling during childhood to adulthoods, from the meaning of the hands in everyday life and the basic training, to the very specific training of the sense of touch and perception during osteopathic schooling.

„Funktion zu fühlen, Funktion zu denken und Funktion zu erkennen innerhalb der anatomischen Physiologie ist für den Behandler keine leicht zu entwickelnde Kunst und Fähigkeit. Es dauert Stunden, Tage, Wochen und Jahre, um die Hände, Augen und Ohren und den Geist des Behandlers derart zu schulen. Und doch bildet es die Grundlage, um die osteopathische Wissenschaft, so wie sie von Andrew Taylor Still gelehrt wurde, in allen Einzelheiten zu verstehen...“ (Becker in Sutherland, 2004, II, 10)

[“Feeling function, thinking function and recognizing function within the anatomic physiology is not an easy ability to be acquired by the therapist. It takes hours, days, weeks and years to train hands, eyes, ears and mind of the therapist. And yet it forms the basis in order to understand the osteopathic science as it was taught by Andrew Taylor Still in detail...”]

This study pursues the following aims:

Firstly it shall examine the meaning and role of the hands in the course of many years. Further it looks into the question of what schooled the hands already prior to the osteopathic training. And finally a large part of the study is dedicated to the very special schooling of the sense of touch and perception during osteopathic training.

Lastly the results from the study shall merge into a conclusion with the primarily psychological background and the description of the “thinking fingers”.

2.1 General Information

- All direct quotations from books or journals are italicized.
- Quotations from transcripts are cross-referenced with page- and line-numbers from the corresponding transcript.
- All German quotations were translated by Anna Walchshofer. Though aiming at translating as faithfully as possible with regard to content and meaning of the quotations, it is important to note that content and meaning might have changed due to translation – this refers to the quotations from Sutherland and the interviewees.
- Transcripts of the interviews are added to the English version of this master thesis on CD-ROM.
- For reasons of better readability, the masculine form will be used throughout this thesis – especially regarding the interviewees; it represents the feminine and masculine form equally.
- The following abbreviations are used:

IP.....Interview partner

OT...Osteopathic training

WSO...Wiener Schule für Osteopathie (Vienna School of Osteopathy)

OZK...OsteopathieZentrumKinder (Children's Osteopathic Center)

3 DESCRIPTION OF FINGERS – “*THINKING FINGERS*”

This chapter is dedicated to the question what the *thinking fingers* stand for. Sutherland uses different description for finger – for osteopathic finger. The following three quotations explain which those adjectives are:

„Die Fluktuation der Zerebrospinalen Flüssigkeit kann in ihrem Rhythmus mit klugen-fühlenden-sehenden-wissenden Fingern bis zu jenem Zustand gelenkt werden, an dem sich sämtliche Körperflüssigkeiten in einem „rhythmischen Balance-Austausch“ befinden.“ (Sutherland, 2005, II, 194)

[“The fluctuation of the cerebrospinal fluid can be directed in its rhythm by the feeling-seeing-knowing fingers to a condition where all bodily fluids are in a “rhythmic balance-exchange.”]

„Das Denken, Fühlen und Sehen mit intelligenten Fingern und nicht blindes Herumprobieren, öffnet neue Wege zu vielen Möglichkeiten der Osteopathie“ (Sutherland, II, 40)

[“Thinking, feeling and seeing with intelligent fingers instead of random testing opens new ways for many possibilities in osteopathy.“]

„Unterweisen Sie daher die Finger des Osteopathen zunächst im Fühlen, Denken und Sehen und erlauben Sie ihm erst dann, zu berühren. Das Finger-Fühlen, Finger-Denken und Finger Sehen ist die einzige Möglichkeit, die diagnostische Botschaft zu lesen.“ (Sutherland, 2004, II, 17)

[“Teach the osteopath’s fingers firstly in feeling, thinking and seeing and only later allow him to touch. ... The finger-feeling, finger-thinking and finger-seeing is the only possibility to read diagnostic message.”]

Summarizingly the following questions can be named: *wise, feeling, seeing, knowing, intelligent, thinking*. These words describe what the fingers of an osteopath know or should know according to Sutherland. They describe how osteopathic fingers should work. He uses them again and again with emphasis. It can be observed that Sutherland uses the words *wise, feeling, seeing, knowing* frequently, in changing combinations.

Wise-feeling-seeing (Sutherland, 2004, II, 32, 34, 39, 41, 115, III, 35)

Wise-feeling-knowing (Sutherland, 2004, II, 250)

Wise-feeling-seeing-knowing (Sutherland, II, 150, 153, 186, 190, 191, 194, 214)

It is important to mention it and very interesting, that Sutherland takes over the words *wise, seeing and feeling* from Still and adds *knowing* himself – this says his wife Adah Sutherland, quoted here.

„In der osteopathischen Ausbildung seiner Studententage wurde die Notwendigkeit der „klugen, sehenden und fühlenden Finger“ beim Studium der „Erfühlen des Gewebes“ von Dr. Still und seinen Ausbildern immer wieder betont. Dr. Sutherland hatte diesen Ratschlag immer im Hinterkopf und fügte ihm später eine vierte Beschreibung hinzu: wissende Finger.“ (Sutherland, A., 2004, IV, 22)

[“During his osteopathic training as a student the necessity of the „wise, seeing and feeling“ fingers was stressed by Dr. Still and his trainers during the study of “feeling the tissue”. Dr. Sutherland always kept the advice in his mind and added later a fourth description: knowing fingers.”]

Subsequently the meaning of these adjectives shall be explained further. These are unusual adjectives for describing hands. Only the word “feeling” seems appropriate, because it is the task hand of the hands to “feel” things – and osteopaths feel the patient respectively the patient’s tissue. But what are wise, seeing, knowing, intelligent and thinking fingers. The words wise, seeing, knowing, intelligent and thinking are generally rather assigned to people or the mind. The word seeing clearly stands for our eyes, for our optic sense. It has to be clarified what these words for the hands stand for in Sutherland.

What does he mean by each of these words?

In order to answer this question, the Sutherland compendium was studied intensively regarding this evidence. Very concrete indication could be found.

3.1 FEELING FINGERS

Sutherland calls the osteopathic training a *„Studium des ‚Erfühlen der Gewebe‘“*. (Sutherland, 2004, IV, 22) [“study of “tactically sensing the tissue“.”] and the following words underline his thoughts:

„Während seines späteren Unterrichts betont er: ‚Dein Anliegen muss es sein das Gefühl des Gewebes zu erfassen; die unterschiedlichen Eindrücke, ob es sich wie trockenes Pergament anfühlen,... sich breiig anfühlt,... oder vielleicht locker wie Spitze. Dieses Gefühl sagt dir etwas über das, was darinnen ist... bei der Diagnose,

deiner Technik musst du tief hineingehen und das Bild durch alle Schichten hindurch erkennen.“ (Sutherland, 2004, IV, 22)

[“During his later lessons he stresses: „It has to be your aim to capture the sensation of tissue, the different impressions, whether it feels like dry parchment,... feels mushy, or lose like lace. This feeling tells you something about what is inside... during diagnosis, your technique you have to go deep inside and recognize the picture through all layers.”]

It is important to capture the *sensation of the tissue*. According to the quotation the *sensation of the tissue* can be equalled with *different impressions* of the tissue. The osteopath gains an impression of the tissue, what it feels like. The word “how” refers to a characteristic. Three characteristics are mentioned: dry, mushy and lose. The characteristics describe the tissue, describe what is *within*. If the osteopath knows what is within, he has achieved a diagnosis.

When Sutherland talks about the *sensation of the tissue*, osteopaths refer to the quality of the tissue. „*Qualität heißt Beschaffenheit, Eigenschaft. Qualität ist eine Kategorie, insbesondere der sinnlichen Seiten der Wahrnehmung*“ (Brockhaus Encyclopedia, 1968, quoted by Wagner, 2002, 8) [“Quality means condition, characteristic. Quality is a category, especially of the sensuous parts of perception.“]

In order to back this statement Wagner (2002) is quoted here:

[...] „Zurück zur Gewebequalität. Die Sprache dieser osteopathischen Wahrnehmung muss die Sprache der Eigenschaften sein, denn was wir mit unseren Sinnen erfahren, ist zuerst das Wie, das Adjektiv, und nicht das Was, also das Substantiv oder gar eine Tätigkeit, also das Verb. [...] Und wir nehmen Qualität ja auch mit unserem vielfältigsten Sinnesorgan, der Haut, wahr. Wobei ich davon ausgehe, dass Wahrnehmung die Bewusstwerdung des Gespürten, mit den Sinnen Wahrgenommen, ist. Die wahrgenommene Sinnesempfindung ist also, weil bewusst, in Sprache umsetzbar.

Die Eigenschaft sagt etwas über die Beschaffenheit eines Objektes. Eigenschaften werden mit Eigenschaftsworten beschrieben. [...]

Für den osteopathischen Zusammenhang habe ich eine Liste von 432 `allgemeinen` Eigenschaftswörtern zusammengestellt, die für die Beschreibung einer oder mehrere Eigenschaften eines Gewebes verwendet werden oder werden können. Sie klären die Frage des WIE: wie fühlt sich das Gewebe an, welche Qualitäten sind spürbar?“ (Wagner, 2002, 6-7)

[“Back to the quality of tissue. The language of the osteopathic perception has to be a language of characteristics, because what we capture with our senses is at first “how?”, the adjective and not “what?”, the noun or an action, meaning the verb. [...] We capture quality with our most multifarious sense organ, the skin. Whereby I assume that perception is the becoming conscious of the things felt and perceived by the senses. The perceived sensory perception can be transformed into language, because it is conscious.

The quality tells something about the condition of an object. Qualities are described by adjectives. [...]

In connection with osteopathy I have listed 432 ‘general’ adjectives which can be used for the description of one or more qualities of the tissue. They explain the question of the HOW: How does tissue feel like, which qualities are palpable?”]

The osteopath ask the following question: How does it feel like? Which adjectives describe these qualities? Subsequently it is possible to gain a diagnosis. Is the sensation of the tissue normal, meaning healthy and energetic or pathologically changed? Which tissue is responsible for the change?

The tools which can capture this information are our hands and fingers with their sense of touch. Sutherland says: *„Die Technik der Osteopathie besteht in einer intelligenten Anwendung des taktilen Empfindens und der propriozeptiven Sinne, mit denen wir das relevante Problem im Körper des Patienten aufzuspüren.“* (Sutherland, 2004, I, 150) [“The technique of osteopathy consists of an intelligent use of tactile sensation and the proprioceptive sense with which we sense the relevant problem in the patient’s body.”] On one hand he talks about superficial sensitivity, also called the tactile sense or sense of touch and on the other hand about proprioception. The aid of this senses permits to osteopath to sense the body of the patient and to detect problems. Sutherland goes one step further by demanding an intelligent use of the senses: What does that mean? Intelligence is derived from the Latin word “*intelligere*” – “*understanding*” (Langenscheidt, 1983, 629).

„Intelligenz ist die Fähigkeit, Beziehungen mit der Physikalischen Umwelt oder mit Gedanken und Ideen aufzunehmen. Um dies zu ermöglichen, benötigt man eine Menge gut geplanter Zusammenarbeit zwischen Milliarden von Neuronen. Das Ausmaß der Intelligenz scheint mit der Anzahl der Neuronen im Gehirn überein zustimmen und besonders mit der Anzahl von Kontakten zwischen diesen Neuronen.“ (Ayres, 2002, 89)

[“Intelligence is the ability to establish relations with the physical environment or with thoughts and ideas. In order to permit that, a large amount of well-planned cooperation between billions of neurons is required. The amount of intelligence seems to correspond with the number of neurons in the brain and especially with the number of contacts between these neurons.”]

Ayres stresses the synapses. Intelligence is seen as the ability to establish contact, connect thoughts, realise connection and subsequently find a solution for problems. Intelligence is seen as a mental activity.

Sutherland demands a mental, or cognitive, processing respectively evaluation of the information captured by the hands. Here, Guski shall be mentioned, who describes the perceptual cycle according to Neisser and considers perception as a continuous activity of capturing and processing information which requires „wesentlich mehr kognitive Tätigkeit gehört als oft zugestanden wird.“ (Guski, 2000, 77) [“a lot more cognitive activity than generally conceded.”]

For further explanations regarding the word “intelligent” compare chapter 3.5.

Back to the tactile sense:

It is striking that Sutherland often uses the term *sense of touch* – probably to highlight the hands’ ability to sense and feel. The following examples shall be cited here: „Dieser Zustand kann durch unseren Tastsinn leicht diagnostiziert werden.“ (Sutherland, 2004, II, 104) „Keine Apparatur und kein Gerät waren je Ersatz für den geschulten Tastsinn, welcher ihm so wichtig war.“ (Sutherland, 2004, II, 105) [“This condition can be easily diagnosed using our sense of touch.“ „No apparatus and no tool have ever been a substitute for a well-trained sense of touch, which he considered so important.“] Furthermore Sutherland considers a well-trained sense of touch as one of the basic principles of osteopathy (Sutherland, 2004, II, 35). He recommends how this sense can be trained.

„Diese Anwendung des Tastsinn kann man sich weder durch Beobachtung von Manipulationen eines anderen Kollegen aneignen, noch ist sie leicht durch das gedruckte Wort zu erwerben. Am besten wäre es, wenn der Schüler seine Hände an der Stelle der gewünschten Bewegung neben denen des Lehrers legt und dort mit dem Tastsinn auf intelligente Weise – fühlend, sehend, klug – verfolgt, wie das Gewebe vorsichtig, sanft, fest und wissenschaftlich fundiert in einen normalen Zustand geführt wird.“ (Sutherland, 2004, II, 35)

[“The use of the sense of touch can neither be acquired by observing the manipulation of a colleague, nor can it be achieved by the written word. It would be best if the

student placed this hand on the spot of the desired movement next to the ones of the teacher and then follows with his sense of touch in an intelligent way – feeling, seeing, wise – how the tissue is carefully, softly, steadily and scientifically conducted into a normal condition.”]

Sutherland recommends that the osteopathic student places his fingers next to the one of the teacher and feels and sense with him.

3.1.1 Summary

It can be noted that by *feeling fingers* Sutherland (2004) means such fingers whose sense of touch is trained in capturing the sensation of the tissue. It has been shown that this refers to the quality of the tissue and can be described by adjectives. According to Wagner a sensory sensation is transferred to language. Subsequently a diagnosis can be made. According to Sutherland (2004) the fingers should feel inside the body and recognise many layers. „[...] *bei der Diagnose, deiner Technik musst du tief hineingehen und das Bild durch alle Schichten hindurch erkennen.*“ (Sutherland, 2004, IV, 22) [“... during diagnosis, your technique you have to go deep inside and recognize the picture through all layers.”] According to Sutherland feeling fingers should be used intelligently – what Sutherland means exactly is described in chapter 3.5.

In this context two very beautiful words are mentioned:

Sutherland uses the word „*Feinfühligkeit*“: „*Feinfühligkeit ist sowohl für die Behandlung als auch für die Diagnose essentiell. Der Behandler muss ein Gefühl für die verschiedenen Mechanismen der Patienten bekommen. [...]*“ (Sutherland, 2004, I, 150)

Das zweite Wort ist „*Fingerspitzengefühl*“: „*Es [ein Ganglion] handelt sich um ein kleines Ding, das mit Fingerspitzengefühl behandelt werden muss, nicht mit einer entschiedenen Manipulation*“ (Sutherland, 2004, I, 94) [“Tactful feeling: Tactful feeling is essential for treatment as well as for diagnosis. The therapist has to gain a feeling for the different mechanisms of the patients.”]

The second word is „*Fingerspitzengefühl*“: „*Es [ein Ganglion] handelt sich um ein kleines Ding, das mit Fingerspitzengefühl behandelt werden muss, nicht mit einer entschiedenen Manipulation*“ (Sutherland, 2004, I, 94) [“Sensitive feeling: It [a ganglion] is a small thing that has to be treated with sensitive feeling and not with forceful manipulation.”]

Both terms contain “feeling” and according the author are very interesting and distinctive, because they describe the osteopathic fingers as adequately in a direct, literal sense as well as

in a figurative one. Directly, “tactful feeling” describe the action of “delicate feeling” and “sensitive feeling” directly describes “feeling with the fingertips respectively in the fingertips” [the German word literally translated means ‘finger-tip-feeling’] – because here the most tactile points are located – see chapter 4. In a figurative sense the two words describe a very beautiful human quality which exceeds the sense of touch and the proprioception by far.

3.2 SEEING FINGER

In order to clarify what Sutherland means by seeing fingers, the meaning of the anatomy and the function within anatomic physiology has to be emphasised.

Sutherland (2004) underlines that Still is marked out by his extensive study of the living human body.

„Dr. Still studierte den lebendigen menschlichen Körper in aller Ausführlichkeit und erwarb ein Wissen über die anatomisch-physiologischen Mechanismen des Körpers, welches der Schlüssel zu seinem phänomenalen Geschick bei der Diagnosestellung und Behandlung wurde.“ (Sutherland, 2004, 139)

[“Dr. Still studied the living human body in all detailedness and gained knowledge about the anatomic-physiological mechanisms of the body which is the key to his phenomenal skill in diagnosis and treatment.”]

Sutherland (2004) considers it important to know the anatomy very well and to understand it. Only then it is possible to distinguish normal, healthy conditions of the tissue from altered, anormal conditions. *„Nur wenn wir die Anatomie in ihrem Normalzustand wirklich verstanden haben, sind wir in der Lage, anormale Zustände aufzuspüren.“ (Sutherland, 2004, II, 217)* [“Only if we have understood anatomy in its normal state we are capable of detecting anormal conditions.”] Sutherland calls this *Still’s fundamental principle* and according to his opinion, *in der Lehre der osteopathischen Wissenschaft höchste Wichtigkeit genießen.* (Sutherland, 2004, II, 217) [“it should have top priority in the teaching of osteopathic science.”]

But Anatomy in the sense of Sutherland (2004) means more: it means a special osteopathic anatomy assumed by him, additionally to the anatomy described in traditional text books. It contains the knowledge of the four characteristics of the Primary Respiratory Mechanism (PRM). (Sutherland, 2004, I, 26)

These are:

- 1) The cerebrospinal fluid and its fluctuation
- 2) The reciprocal tension membrane and its function
- 3) The neural tube (brain and spine medulla) and its motility
- 4) The skull bone with its joint-like mobility and the sacrum and its involuntary mobility.

This anatomy is important to explain “*seeing fingers*“ following Sutherland.

According to Sutherland (2004) *seeing* means being able to look inside the body, to visualise it and to be able to create a mental picture of the inside of the body. This is only possible on the basis of the intense study of the anatomy.

Following two quotations confirm this statement:

„Diese intrakranialen Bilder müssen sie sich für Diagnostik und Behandlung vor Augen halten. In der Wissenschaft der Osteopathie, wie sie von Dr. Still vorgestellt wurde, liefert uns das kraniale Konzept ein Bild, dessen sich der Therapeut ständig bewusst sein muss, um das eigentliche Problem diagnostizieren und behandeln zu können.“
(Sutherland, 2004, I, 34)

[“You have to keep these intracranial pictures in mind for diagnosis and treatment. In the science of osteopathy, as presented by Dr. Still, this cranial concept provides a picture, the therapist always has to be aware of, in order to diagnose the actual problem and to treat it.”]

„Wenn ihr eure Finger auf den Kopf dieses Burschen legt, müsst ihr das vor euch liegende anatomische Bild spüren, fühlen, sehen und erkennen. Entfernt euch keinen Moment von diesem Bild.“ (Sutherland, 2004, IV, 8)

[“If you place your fingers on this boy’s head, you have to sense, feel, see and recognise the anatomic picture at hand. Don’t ever move away from this picture.”]

Sutherland often talks about these pictures. He calls them spiritual, mental or inner pictures. He stresses the necessity of an entirely clear picture of all joints and skulls and all intracranial tissues. (Sutherland, 2004, II, 63)

Here an abstract is given of the words he used while he demanded and urged his students to *see*: (Sutherland, 2004, I)

Halten Sie sich das Bild [...] vor Augen. (52) – Stellen Sie sich bildlich vor. (59) – Ich möchte, dass Sie [...] hineinsehen. (116) – Es ist notwendig, sich als ersten Schritt [...] ein mentales Bild des Mechanismus zu machen. (123) – Visualisieren Sie [...] (144) – [...] müssen wir unsere Vorstellungskraft bemühen. (167) – Noch mal, visualisieren Sie das Innere mithilfe einer Analyse der Außenseite. (188)

[“Keep the picture [...] in mind. (52) – Imagine it visually (59) – I want you to [...] look inside (116) – it is necessary that you gain a mental picture of the mechanism [...] as a first step (123) – Visualise [...] (144) – [...] we have to use our imagination (167) – Once again, visualise the inside with the help of an analysis of the outside. (188)”]

Diese Visualisierung erfolgt durch unterschiedliche Bilder. Zum besseren Verständnis werden sie hier in Gruppen eingeteilt.

3.2.1 Pictures of anatomic structures

„Umriss und Form der anatomischen Details in diesem Bereich zusammen mit allen mechanischen Möglichkeiten ist das, was wir spezifisch studieren müssen, um uns dieses unbedingt notwendige, innere Bild zu erschaffen.“ (Sutherland, 2004, II, 84)

[“Outline and shape of anatomic details in this field together with all mechanic possibilities is something we have to study specifically in order to create this by all means necessary inner picture.”]

Sutherland (2004) urges to study anatomy in detail. This specific and exact study offers osteopaths the chance, to have a certain bodily structure in mind to be able to visualise it in contact with the patient – to see it with his inner eye.

Sutherland gives additional advice for visualisation. He uses many metaphors. Some pictures are quoted representatively:

„Es ähnelt irgendwie einer Fledermaus mit ausgebreiteten Flügeln.“ (I, 69) [“it resembles a bat with spread wings“] describes the sphenoid. Or: *„Das Vomer ähnelt von der Gestalt her einer Pflugschar“ (I, 98).* [“The vomer’s shape resembles a plowshare.“] Furthermore he mentions a very unique picture for the joint connection of the sphenoid and the occiput on the clivus: *„Sie ähnelt der Brücke über den Chicago River.“ (I, 111)* [“It resembles the bridge over Chicago river“] The falx resembles a *sickle (II, 265)* and received its name because of its form. *„Wie Kabeln, an denen die großen Ampeln an Straßenkreuzungen befestigt sind.“ (I, 90)* [“Like cables to whom big traffic lights are attached to on a crossing.“] This picture stands for the two roots of the infraorbitale nerve to which the sphenopalatine ganglion is attached. *The bird (II, 141)* is the picture for the ventricular system.

According to Sutherland (2004) osteopaths should have a substantiated anatomic picture of each tissue of the body during diagnosis and therapy.

When osteopaths put their hands on the body of the patients – e.g. on the head – they can feel several layers of tissue at once: the skin, subcutaneous tissue, the periosteum, the bones, muscles and their fasciae. Other layers of tissue can only be sensed indirectly, because they

lie in-depth and have to be visualised. But the palpation on the outside of the skull helps to create a mental picture of the in-depth tissue position. Sutherland says in a previously mentioned and a new quotation:

„....bei der Diagnose, deiner Technik musst du tief hineingehen und das Bild durch alle Schichten hindurch erkennen.“ (Sutherland, 2004, IV, 22)

[“during diagnosis, your technique you have to go deep inside and recognize the picture through all layers.”]

„Dies [die SSB] ist einer der wichtigsten Bereiche im kranialen Mechanismus: ein Bereich den Sie nicht unmittelbar fühlen können, sondern den Sie visualisieren müssen.“ (Sutherland, 2004, II, 144)

[“This [the SSB] is one of the most important areas of the cranial mechanism: an area you cannot feel directly, but that you have to visualise it.”]

Sutherland stresses that visualisation of the intracranial area has to be maintained during all cranial techniques (Sutherland, II, 36).

Millard (2004), a colleague of Sutherland's, describes too, that osteopaths firstly gain the mental pictures in a crude manner during training and specify them repeatedly through mental imagination (Sutherland, 2004, III, 17).

3.2.2 Pictures for the movement and for the function – of structures

When Sutherland started explaining his cranial hypothesis to others, he introduced them through a *„praktisches Wortspiel“* (Sutherland, IV, 35) [“practical pun”], to create a mental picture – a spiritual picture for the working patterns of different structures (Sutherland, 2004, IV, 35).

Here some examples are mentioned:

He writes: *„Das Os Temporale bewegt sich wie ein wackeliges Rad.“* (Sutherland, 2004, II, 145) [“The temporal bone moves like a rickety bike.”] He describes the movement between temporal bone and occipital bone as follows: *„Gleichzeitig findet aber auch eine Bewegung zwischen beiden Knochen statt, die man mit jener zwischen einem Marmeladenglas und seinem Deckel vergleichen kann.“* (Sutherland, 2004, II, 146) [“Simultaneously there is a movement between two bones which can be compared to a jam jar and its lid.”] His supposedly preferred saying was, according to his wife Adah Sutherland, 2004, IV, 35) shall be mentioned here. It refers to reciprocal tension membrane: *„...stellt euch zwei aufrechte Stäbe vor, zwischen denen ein Draht mit durchgehender Spannung aufgespannt ist. Ein Zug an einem Stab zieht den anderen Stab in gleichem Ausmaß in die gleiche*

Richtung.“(Sutherland, 2004, IV, 35) [“... imagine two upright poles between whom an energized wire is spanned. Pulling one pole pulls the other pole into the same direction to the same amount.“]

For the movement of the soft tissue, the hypophysis, he uses the following picture: „*In unserem mentalen Bild `reitet` die Hypophyse `im Sattel` des Os sphenoidale so wie wir uns mit unseren Tubera ischiadica bewegen, während wir auf einem galoppierenden Pferd sitzen.*“ (Sutherland, 2004, II, 99) [“In our mental picture the hypophysis ‚rides‘ in the ‚saddle‘ of the sphenoidal bone, just as we move with our ischial tuberosity when we are sitting on a galloping horse.“] The ventricular system resembles the following picture: „*Hier haben wir den Körper eines `Vogels`. Der Aquaeductus cerebri mit dem vierten Ventrikel und dem Canalis spinalis des Rückenmarks gleichen dem Schwanz eines Vogels. Beachten Sie die Ansätze der Seitenventrikel. Sie befinden sich nämlich dort wo man auch die Flügelansätze am Vogelkörper findet. (...) Was macht der Vogel, wenn er fliegt? Die Flügel bewegen sich in der Inhalationsphase hinten nach außen. Schauen Sie nun auf den dritten Ventrikel. Sehen Sie, wie er V-förmig expandiert? Beachten Sie, dass sich der Boden des Ventrikels nach oben bewegt und sich das Dach ausdehnt.*“ (Sutherland, 2004, II, 141) [“Here we got the body of a ‚bird‘. The cerebral aqueduct with the fourth ventricle and the spinal canal of the spinal medulla resemble the tail of a bird. Focus on the onset of the lateral ventricle. They are to be found where the onset of the wings is on a bird’s body. (...) What is the bird doing while flying? During the inhalation phase the wings move from behind to the outside. Look at the third ventricle. Do you see how it expands in a V-shaped manner? Take note that the bottom of the ventricle moves upwards and the roof expands.”]

The fluctuation of the cerebrospinal fluid can be sensed easier through this picture:

„*Nehmen Sie einen mit Wasser gefüllten Behälter, schwenken Sie ihn hin und her und setzen Sie ihn ab. Wenn Sie Ihre Hände nun um den Behälter legen, werden Sie fühlen, wie sich das Wasser darin bewegt. Sie können eine derartige Bewegung auch im Schädel fühlen. Sie wissen, wonach Sie spüren.*“ (Sutherland, 2004, II, 154)

[“Take a container filled with water, swing it and put it down. If you put your hands around the container you will feel how the water moves inside. You can feel a similar movement inside the skull. You know, what you are feeling after.”]

All these pictures are familiar to osteopaths. They are used during classes. (Turner und Nusselein, 1997-2001)

The creation of mental pictures helps while sensing intracranial movements. Sutherland gives another advice by saying that one should imagine crawling into the skull and visualise and feel activities from the foramen magnum (Sutherland, 2004, II, 138).

“*A tour of the minnow*” (Sutherland, 2004, II, 287-300) is a very special form of mental image, a sequence of many images, an inner movie. One imaginatively enters the human brain and journeys through it like a little minnow. Together with the fish one swims through the cerebrospinal fluid and because the minnow is so small (12mm) it can enter all corners and crevices. It is the aim to take a look around with the inner eye and to understand the function neural tube. (Shaver, 2006, page- 8-11)

For Sutherland, the main idea of this journey is „*die Einsichten sowohl in als auch über das lebendige Gehirn zu veranschaulichen, zu verdichten und greifbar zu machen.*“ (Sutherland, 2004, II, 287) [“highlighting the insights into and about the living brain, intensifying them and making them tangible.”]

The “seeing fingers” are explained through this anatomic pictures and the pictures of movement. It is interesting that Sutherland uses pictures in order to explain techniques or the approach to techniques. This further explains the “seeing finger”.

3.2.3 Pictures for techniques

A picture frequently mentioned in classes at the WSO is the following: „*Leichter, leichter, sanft wie ein Vogel, der auf einem Zweig landet.*“ (Sutherland, 2004, IV, 38) [“Softer, softer, gentle like a bird landing on a twig.”]

This pictures stand for touching the patients. He advised his listeners very often in class, how soft, how gentle, with which kind of pressure they should touch their patients. This picture was used during training at the WSO as well. (Turner and Nusselein, 1997-2000)

3.2.4 Pictures for lesions and pathologies:

While studying the compendium another group pictures were mentioned.

A very expressive picture for trigeminal neuralgia:

„*Stellen Sie sich vor, wie unangenehm es für einen Menschen ist, eine enganliegende Ärmelmanschette zu tragen. Dies ist ein passendes Bild für einen Vergleich mit dem*

unangenehmen Gefühl im Gesicht, das man bei einem Trigemimusneuralgie verspürt.“
(Sutherland, 2004, I, 126)

[“Image how unpleasant it is for people to wear tight sleeve cuffs. This is an appropriate picture for a comparison with the unpleasant feeling in the face provoked by a trigeminal neuralgia.”]

Sutherland contrasts the term „seeing eyes“ with the word “blind“. He says that osteopathic treatments are no „*blinden Behandlungen*“ (Sutherland, 2004, II, 53) [“blind treatments”]. He disapproves of a „*blindes Aneinanderreihen“ schneller Bewegungen, die zu Irritationen führen können.* (Sutherland, 2004, II, 45) [“blindly stringing together quick movements which can cause irritation.“]

3.2.5 Summary

It can be said that Sutherland considers it essential for an osteopath to gain knowledge about the anatomy and physiology of all tissues of the body. He refers to the “traditional anatomy” and the special osteopathic one he assumes with the four characteristics of the Primary Respiratory Mechanism. This knowledge enables him to visualise, to gain a clear anatomic picture of the body tissue while working. *Seeing fingers* in the sense of being able to create a mental image. Sutherland urges his students to *see* and offers corresponding metaphors for these body tissues and body structures. ‘Metaphor’ derives from Ancient Greek and can also be found in Latin as *metaphora* and means “Bedeutungsübertragung” (Langenscheidt, 1983, 743), transferring meanings. Sutherland transfers pictures from everyday life to an anatomic structure. Hereby sphenoid shall be mentioned, which he describes as a *Fledermaus mit ausgebreiteten Flügeln* (Sutherland, 2004, I, 69) [“bat with spread wings“].

Sutherland offers similar comparative pictures for anatomic structures, movements, functions, techniques for lesions and pathologies. According to Sutherland they serve for *zu veranschaulichen, zu verdichten und greifbar zu machen.*“ (Sutherland, 2004, II, 287) [“highlighting, intensifying and making [the tissue] more tangible.“]

Osteopathically working fingers become “seeing fingers” through visualisation.

Finally it has to be said, regarding the subject of “seeing fingers”: Craniosacral therapy started with a picture: „*Abgeschrägt wie die Kiemen eines Fisches, und ein Hinweis auf einen Atemmechanismus.*“ (Sutherland, 2004, II, 262) [“Bevelled like the gills of a fish and an advice to the respiratory mechanism.”] This “*verrückte Gedanke*“ (Sutherland, 2004, IV, 20) [“mad thought“] came into his mind while contemplating the bevelled articular surface of the

sphenoid. This thought was so persistent that he started investigating the skull in order to find out about the reason for this bevelling and realised that it definitely is the expression of the mobility of the skull – cranosacral therapy was born.

3.3 KNOWING FINGERS

In his compendium Sutherland refers several times to the words *knowledge*, *to know* and *knowing*. It shows that *knowing fingers* can be explained in two different ways.

3.3.1 Cognitive knowledge

The importance of anatomy and physiology was already highlighted in the chapter about *seeing fingers*. The following quotations shall show that this knowledge refers partly to *knowing fingers* as well.

„Dr. Still studierte den lebendigen menschlichen Körper in aller Ausführlichkeit und erwarb Wissen über die anatomisch-physiologischen Mechanismen des Körpers, welches der Schlüssel zu seinem Geschick bei der Diagnosestellung und Behandlung wurde.“ (Sutherland, 2004, II, 139)

[“Dr. Still studied the living human body in all detailedness and gained knowledge about the anatomic-physiological mechanisms of the body which is the key to his phenomenal skill in diagnosis and treatment.”]

This refers to anatomic and physiologic knowledge which is *the key* for diagnosis and treatment. On one hand the use of the word *key* shows the importance of this knowledge – a key lock or, like in this case – opens. It has power. On the other hand it shows that knowledge is important for diagnosis and therapy. It is the basis for both. Knowledge has a close connectivity with diagnosis. It is a cognitive process, where knowledge about anatomy in connection with the information gained from the tissue through the sense of touch leads to diagnosis. Cognition stems from Latin *cognoscere*: to recognise. (Langenscheidt, 1983, 209)

Another important quote refers to this knowledge osteopaths are required to acquire. It comes from a conference in Kirksville 1953 when Sutherland spoke about cutting and non-cutting surgery. He indicated that osteopaths, whom he calls non-cutting, own something Higher.

„Sie besitzen eine Verbesserung unserer chirurgischen Systeme, denn ihr System ist aufgrund kluger-fühlender-wissender Finger und ihres vollkommenen Wissens nicht-schneidend. Nein, ich werde nicht aufgrund vollkommenen Wissens sagen, sondern

aufgrund Ihres bisher erworbenen Wissens über diesen menschlichen Mechanismus.“
(Sutherland, 2004, II, 256)

[“They own an improvement of our surgical systems, because their system is non-cutting due to their *wise-feeling-knowing fingers* and their perfect knowledge. No, I will not say due to their perfect knowledge, but due to the knowledge they have acquired so far about the human mechanism.”]

Due to this knowledge it is possible to work without cutting. An osteopath has the ability to change tissue without cutting.

Sutherland's following statement also supports the claim to be “knowing” in the sense of knowledge about anatomy. Sutherland explains in a speech from 1944 the dysfunction of the sphenobasilar intersection: *„Mit dem erforderlichen anatomisch-physiologischen Wissen können Ihre Finger herausfinden, mit welchem Typ Sie es zu tun haben.“* [“With the necessary anatomic-physiologic knowledge your fingers can find out which type you are facing.”]

According to Sutherland (2004) there is still an augmentation of knowledge about anatomic structure. He talks about a knowing feeling. It is not sufficient for a knowing feeling to know the mere anatomy, but to know it so well and to have such a good imagination of the operating mode of the mechanism that the *Bild zum Leben erwacht*. (Sutherland, 2004, II, 211) [“Picture becomes alive”]. To have such a good and exact knowledge of a structure that it becomes alive – it transforms from a twodimensional picture to a threedimensional moving picture.

Like Dovesmith (1918) said: *„Jetzt weiß ich, was Sie mit einem aufgehängten Fulcrum meinen. Wow! Wie diese Membranen schwingen.“* (Sutherland, 2004, II, 211-212) [“Now I know, what you are meaning by a suspended fulcrum. How these membranes are swinging.”] This statement by Dovesmith shows the euphoria and joy, evident in this clear picture.

3.3.2 Intuitive knowledge

From a lecture in 1948 it becomes clear that Sutherland also has a different understanding of the word *knowing* as described previously.

Sutherland distinguishes “knowledge” from “knowing”. The “first knowledge” is the one described previously: exact anatomic knowledge which provides the basis for diagnosis and therapy. Remember: “The knowledge of anatomy connected with the information gained from

the tissue leads to diagnosis”. The knowledge is connected with the bodily sense, the sense of touch and the perception of bodily sensation.

The following quote by Sutherland speak of the “second knowledge” – and knowledge which „vom physischen Sinn entfernt“ [“moves away from physical sense”]

„Meine Experimente waren niemals beschränkt auf die bloße Korrektur eines Os temporale etc. Ich habe mich bemüht, mich so weit wie möglich von den physischen Sinnen zu entfernen, bis hin zu einem Punkt, an dem man zu erkennen beginnt: „Seid still und erkennt!“ Daher habe ich so viel zu sagen über die Information, welche ausschließlich durch Labor-Tests und Experimente gewonnen wurde, und über die Information, die oft durch die Anwendung irriger und unzuverlässiger physischer Sinne gewonnen wurde. Wie viele von Ihnen haben dieselbe Sehkraft? Denselben Berührungssinn? Sie habe mich besagte Diagnose durchführen sehen, eine Diagnose mittels sehender-fühlender-kluger-wissender Finger – Finger, welche sich bemühen, sich von der Wahrnehmung physischen Empfindens zu entfernen, dorthin, wo es eine Berührung gibt, die weiß. Oft legen Sie dann Ihre Hände direkt auf die Dysfunktion.“
(Sutherland, 2004, II, 190)

[“My experiments were never limited to the mere correction of an temporal bone, etc. I always tried to move as far away as possible from the physical sense to a point where one starts to realise: “Be still and realise!” Therefore I have so much to say about the information solitarily gained lab-tests and experiments and about the information gained by the application of erring and unreliable physical senses. How many of you have the same eye-sight? The same sense of touch? You have seen me making the mentioned diagnosis, a diagnosis using seeing-feeling-wise-knowing fingers – fingers which strive to move away from the perception of physical sensations to a point where there is a touch that knows. In this case you often put your hands directly on to the dysfunction.”]

Later in this lecture Sutherland stressed that *dieses Wissen keine Information ist, die durch die physischen Sinne gewonnen* [„this knowledge in no information gained via the physical senses“], but *entsteht, wenn man sich so weit wie möglich vom physischen Sinn entfernt* [“arises when moving as far away as possible from the physical sense.“]

The decisive point concerning the interpretation of *knowing finger* is to be found in the words: “...a touch that knows. In this case you often put your hands directly on to the dysfunction.”

This statement permits the following conclusion: knowing fingers mean that the osteopath intuitively put his hands on specific body parts of the patients. Knowing not in the sense of

cognitive knowledge acquired physically through the sense of touch, but an all-encompassing knowledge that emerges without the contribution of the spirit.

„Oft kommt der Impuls für unser Handeln scheinbar aus dem Nichts.“ (Traufetter, 2007, cover) [“Frequently the impulses for our action seem to come from nowhere“]

What is intuition? For further explanation regarding intuition compare Traufetter (2007) and Gingenzer (2008). Intuition is a way of deciding. Intuitive inspiration and decisions can be explained by the “implicit memory”. It means the unconscious memory, as a contrast to the conscious one, the explicit memory. Traufetter assumes that many aspects of our perceptions are stored unconsciously and automatically. Perceptions, which are accompanied by feelings and therefore have a strong emotional signal, are stored in the long-term memory. Traufetter calls it “unconscious learning efficiency”. *„[...] ständig eintreffende Informationen werden sozusagen unbemerkt auf die Magnetbänder unserer Synapsen kopiert. Wir haben keinen bewussten Zugriff auf diese Form der Datenspeicherung.“* (Traufetter, 2007, 101) [“... continuously incoming information are copied unconsciously onto the magnetic tape of our synapses. We don’t have any conscious access to this kind data storage.”] Traufetter considers it at times more effective *„sich auf die eingebauten, unbewussten Prozesse zu verlassen, als auf die höher angesiedelten bewussten Funktionen.“* (Traufetter, 2007, 103) [“to rely on the innate, unconscious processes than on the hierarchically higher conscious function.”]

In a nutshell it can be said: *„Die intuitive Kraft des Gehirns besteht aus vielem unbewussten Wissen über die Welt.“* (Traufetter, 2007, 106) [“The intuitive power of the spirit consists of a lot of unconscious knowledge about the world.“] The following quotation highlights the substance of intuition:

„Intuition besteht vor allem darin, Muster im Strom der Wahrnehmung auszumachen, die auf uns einwirken und uns zu Entscheidungen zwingen. Diese Muster sind nicht auf telepathischen oder spirituellen Wegen in unseren Geist gelang, sondern durch das Erlernen. Die meisten dieser Muster sind gar nicht bewusst erlernt. Es ist Wissen, von dem wir nicht wissen, dass wir es überhaupt erworben haben. Dieses Wissen liegt wie in der Bibliothek vor, in der nach Stichworten gesucht wird. Erkennt das innere Radar ein bekanntes Muster, dann setzt es Gefühle frei, die den Geist in seinen weiteren Handlungen leiten. Nicht zwangsweise müssen Wissen und Gefühle dabei in das Bewusstsein treten. [...] es ist häufig nicht viel mehr als eine Ahnung, die an die Oberfläche des wachen Verstandes tritt.“ (Traufetter, 2007, 131)

[“Intuition consists above all in recognising patterns in the stream of perception which affect us and force us to make decision. These patterns do not enter our mind in a telepathic or spiritual way, but by learning. Most of these patterns are not learned consciously. It is knowledge we are not aware of having gained. This knowledge is at our hands like a library which we can search for keywords. If the inner radar recognises a familiar pattern, it releases emotions which lead the spirit to further action. Knowledge and feelings do not compulsorily enter our consciousness [...] frequently it is not much more than a notion which comes to surface of the alert mind.”]

Gigerenzer (2008) calls intuition „*Unbewusster Intelligenz*“ (Gigerenzer, 2008, 24) [“unconscious intelligence“] and lists the characteristics of intuition: 1. appears quickly, 2. we are not entirely aware of the deeper reasons and 3. it is strong enough to make us act accordingly. Fink-Koller also concludes, that „*intuitives Vorgehen automatisch und schnell, ohne lange darüber nachgedacht und sich angestrengt zu haben, passiert*“. (Fink-Koller, 2007, 69) [“intuitive action happens automatically and quickly without thinking about it a long time and without having put an effort in it.“]

3.3.3 Personal knowledge

Sutherland conducted cranial experiments on himself which lead him to several hypotheses about the cranial mechanism (Sutherland, 2004, IV, 37). He says „*Ich muss mein eigenes Versuchskaninchen sein.*“ [“I have to be my own test person.”] Only by these experiments could he, according to his own opinion, gain his personal knowledge:

„Nur so werde ich es wissen. Wenn die Experimente an anderen durchgeführt werden, werden sie die Gefühle, Empfindungen, Reaktionen erleben. Sie könne sie für mich interpretieren und die Information an mich weitergeben, das ja. Aber dann würde ich es noch nicht WISSEN.“ (Sutherland, 2004, IV, 41)

[“Only like this I will know. When experiments are conducted on others, they will experience feelings, sensations, reactions. Yes, they can interpret them for me and pass the information on to me. But then I would not KNOW.”]

Sutherland (2004) doesn't want second hand knowledge. The interpretations or assumptions of another person are not sufficient to him. He wanted to experience it himself. These experimental feeling experiences lead him to understanding the cranial mechanisms.

The following quotation underlines this personal knowledge:

„Man muss dieses persönliche Wissen in seinem eigenen Kopf fühlen, um jenes Geschehen genau verstehen zu können. Das Problem liegt darin, wie man dieses Wissen vermitteln kann, da man die Studenten nur über Primäransätze wie beispielsweise das Studium der Beweglichkeit der Schädelknochen dort hinführen kann.“ (Sutherland, 2004, II, 135)

[“One has to feel this personal knowledge inside one’s own head in order to understand the events exactly. The problem lies within how to transmit this knowledge because one can only lead students there by primary approaches such as e.g. the studying of the mobility of the skull bones.”]

This personal knowledge is a deepened knowledge. It means having a „special practical“ knowledge additionally to the „theoretical“ knowledge. Through these self-experiments Sutherland knows how certain cranial lesions he provokes himself and their relief feel. This knowledge can only be experienced on the own body and cannot be transmitted during classes. Sutherland knows about this problem.

3.3.4 Summary

Sutherland describes three kinds of “knowledge“: cognitive, intuitive and personal knowledge.

Cognitive knowledge is based on anatomy and physiology and provides the basis for diagnosis and therapy. According to Sutherland (2004) it allows a “non-cutting surgery” and leads to a *knowing feeling* in case of further deepening of this knowledge. The intuitive knowledge *moves away from physical senses*. It is a knowledge “appearing unconsciously” as a contrast to cognitive, conscious knowledge. Finally there is personal knowledge which develops only by the personal experience of lesion and lesion relief.

An osteopath has knowing fingers if he strives to assemble all three kinds of knowledge.

Finally Still’s word shall be mentioned, quoted by Parker E.T.: *„Doktor Still sagte: ‚Die Osteopathie ist Wissen oder sie ist gar nichts.‘“ (Sutherland, 2004, III, 47) [“Dr Still said: ‘Osteopathy is knowledge or it is nothing.’”]*

3.4 THINKING FINGERS

„Der Osteopath ist jemand, der denkt und nicht herumprobiert. Seine Finger besitzen, wenn sie gut ausgebildet sind, an ihren Fingerspitzen die geschickte Kunst des intelligenten Denkens.“ (Sutherland, 2004, II, 41)

[“An osteopath is someone who thinks and is not just trying away. His fingers have, if they are well-trained, on their tips the fine art of intelligent thinking.”]

In the first part of the quotation Sutherland opposes the word “thinking” to “trying”. The following can be deduced from this statement:

It is important to think first about what to do or what to treat. Sutherland refers to Still: auch auf Still: *„Dr. Still sagte, dass er seine Studenten lehrte zu denken, bevor sie handelten.“ (Sutherland, 2004, I, 151)* [“Dr. Still said that he taught his students to think before they acted.”]

In the chapter where he teaches generally about treatment, Sutherland expresses his disapproval of certain techniques and manipulations. He condemns that among osteopaths approaches of treatment have crept in that are not carefully thought-out. He especially calls manipulations thoracic spine unscientific and not osteopathic which work with sudden, forceful turning and pulling movements. Because this is treatment without diagnosis. It is about finding the right reason by understand the body and its mechanism, in order to think of the appropriate technique which can help the mechanism. (Sutherland, 2004, I, 151)

„Seine (des Arztes) berufliche Aufgabe im weitesten Sinne ist eine Fingerübung. Es geht darum, die ätiologischen Faktoren die in der Tiefe liegen, ebenso wie durch alle Körpergewebe hindurch zu lokalisieren. Das ist so schwierig wie eine Nadel im Heuhaufen zu finden und erfordert Finger, die Gehirnzellen in den Fingerspitzen haben... Finger, mit der Fähigkeit zu fühlen, zu sehen und zu denken... Die Finger sollen wie Detektive die Kunst beherrschen, verborgene Dinge aufzudecken.“ (Sutherland, 2004, IV, 24)

[“His (the doctors) professional task in a broader sense is a finger exercise. It is about locating the etiological factors which lie deep within through all body tissues. It is as difficult as finding the needle in the haystack and requires fingers which have brain cells in the fingertips... Finger with the ability to feel, see and think... Fingers shall know the skill of detecting hidden things, just like detectives.”]

Fink-Koller concludes in her master thesis about Clinical Reasoning that the basic condition about every treatment is the mental process. (Fink-Koller, 2007, 50) “Detecting things”, as Sutherland calls it, means: „„*The osteopath is expected to reason about possible causes and to confirm or disprove his own interpretations by referring to examination and treatment.*“ (Fink-Koller, 2007, 50) Fink-Koller refers to a quotation of Still, which stresses the thinking process of the osteopath and the finding of diagnosis: „*Dieses Werk [das Still-Kompendium] wurde für den Studenten der Osteopathie geschrieben um ihm zu helfen, vor dem Handeln zu denken, den Auslöser bzw. die Ursache der Fälle zu ergründen [...]*“ (Still, 2002, 298) [“This work [the Still compendium] was written for osteopathy students in order to help them to think before acting, to find the trigger or the reason for the cases ...”]

3.4.1 Summary

It can be noted that *thinking fingers* primarily search for the reason, diagnose and conducted treatment based upon it. Trying would mean “treating away” on different parts of the body without knowing whether these parts are the cause for a problem.

Many passages can be found in Sutherland which stresses the diagnosis. In the previous chapter about “knowing fingers” he explains that anatomic knowledge is the basis for it. He talks about the cognitive process during which the brain reconfigures information: anatomic knowledge connected with information for the physical sense, the perception, lead to a thinking process which concludes in diagnosis. It becomes evident that *knowing* and *thinking fingers* are closely related.

This becomes evident for intelligent fingers too. The adjectives mentioned so far “feeling, seeing, knowing and thinking” are derived originally from a verb. The stem from an action: feeling, seeing, knowing and thinking. According to Sutherland (2004) these are the actions of the osteopathic hands. The word “intelligent” is an adjective per se. It describes even more exactly, HOW osteopathic hands are supposed to work. Intelligence is a cognitive ability – thus the connection with the *thinking fingers*.

The following chapter analyses the term *intelligent fingers*.

3.5 INTELLIGENT FINGERS

There are two possibilities of interpreting this term

3.5.1 Searching for the cause instead of random trying

It is intelligent to search for the cause instead of randomly trying. Here the intersection with the *thinking fingers* becomes evident: „*Das Denken, Fühlen und Sehen mit intelligenten Fingern und nicht blindes Herumprobieren, öffnet neue Wege zu vielen Möglichkeiten in der Osteopathie.*“ (Sutherland, 2004, II, 39) [“Thinking, feeling and seeing with intelligent fingers instead of blindly trying away, opens new ways to many possibilities in osteopathy.”] Sutherland opposes, similarly to the previous chapter, the words “thinking, feeling and seeing with intelligent fingers” to the word “randomly trying, trying away.” He repeatedly warns not to “try away”. (Sutherland, 2004, II, 41)

What does he mean by *randomly trying*?

Sutherland responds: „*Manipulationen, verschiedene andere Bewegungen, Thrusts, Ziehen und Rucken, ohne großes Tastvermögen im entsprechenden Bewegungsbereich kann man sehr wohl als `Herumprobieren` bezeichnen.*“ (Sutherland, 2004, II, 41) [“Manipulations, several other movements, thrusts, pulls, jerks without a lot of sense of touch in the corresponding movement radius can be called ‘random trying’”]

Loosening techniques (Sutherland, 2004, II, 39) and „opening methods“, known as „general treatment“(Sutherland, 2004, II, 44) are not scientifically osteopathic and therefore not intelligent. He advises to search for the reasons for tensions instead of wasting time loosening (Sutherland, 2004, II, 39). These techniques are useless for him, superfluous and not osteopathic, because they lack sense of touch (Sutherland, 2004, II, 44).

Working osteopathically intelligent means to use the trained sense of touch, trained in thinking, seeing and feeling. Only when all these special abilities are applied – in diagnosis and treatment – and work is done accordingly, it can be called intelligent. The previously mentioned quotation by Ayres shall be recalls whereby intelligence is characterised by the cooperation of billions of neurons. It is the ability to connect thoughts and detect relations.

3.5.2 Working with the natural intelligent forces of the body

It is intelligent to work with the natural intelligent forces of the body.

„*In der Art der Behandlung versuche ich, den Methoden von Dr. Still zu folgen, was bedeutet, ohne ruckartige Bewegung den Punkt der Lösung zu erreichen, um es dann den natürlichen Kräften zu überlassen, die Knochen wieder in ihre Position und Beziehung zueinander zurückzuführen.*“ (Sutherland, 2004, II, 151)

[“I try to follow the methods of Dr. Still in my way of treatment which means reaching a point of loosening without jerky movements and then leave it to the natural forces to bring the bones back in their position and relation to each other.”]

In this and the following quotation Sutherland explains that there is a force inside the body which fulfils the task of loosening tension. Not exterior force is necessary. He describes this force within infallible and intelligent (Sutherland, 2004, I, 186) and it is located inside the cerebrospinal fluid (Sutherland, 2004, II, 185). He calls it Potency.

„Versuchen Sie nicht, etwas innerhalb des kranialen Mechanismus zu erzwingen. In ihm steckt etwas Mächtiges und Intelligentes. Eine darin enthaltene intelligente Kraft, die den Mechanismus lenkt. Sie müssen diesem `Etwas` lediglich einen kleinen Anschub geben und ihm erlauben, den Mechanismus weiterzutragen....“ (Sutherland, 2004, II, 172)

[“Don’t try to force something inside the cranial mechanism. There is something to powerful and intelligent inside it. An innate intelligent power which conducts the mechanism. You only have to give that “something” a little nudge and allow it to keep carrying the mechanism...”]

This refers to not applying any exterior force to the tissue, but also about gaining information via the sense of touch during treatment which show how a loosening of a tension or a blockade can be achieved. It is the task of the osteopaths to trigger this process and to accompany it.

„Heute, acht Jahre später, sind sich viele in der osteopathischen Profession tätige durch weiterführende Fortbildungen der Bedeutung dieses fundamentalen, in der kranialen Technik vertretenen Prinzips bewusst geworden, nämlich: der innewohnenden physiologischen Funktion zu erlauben, ihre unfehlbare Potency zu entfalten, statt von außen blinde Gewalt anzuwenden“ (Sutherland, 2004, III, 8)

[“Nowadays, eight years later, many people working in osteopathy are conscious of the importance of the principles represented by cranial techniques through further educations: to allow the innate physiological function to unfold its infallible potency instead of applying blind force from the outside.”]

Sutherland emphasizes the conduction of the potency in the fluctuation inside the cerebrospinal fluid during diagnosis and treatment (Sutherland, 2004, II, 185). It is an inner force which he calls infallible and intelligent and which does the work (Sutherland, 2004, II, 186).

The following quotation is extracted from his speech from 1948 with the title „*Diagnose und Behandlung unter Verwendung der Tide*“ (Sutherland, 2004, II, 184) [“Diagnosis and treatment using the tide”]

„Dabei lenken wir nicht bloß eine Potency, sondern eine Potency voller Intelligenz – einen Flüssigkeitskörper mit dem ATEM DES LEBENS, mit „etwas“ Unsichtbaren darinnen, nicht bloß die Potency, sondern auch eine INTELLIGENZ, mit einem großen ‚I‘ am Anfang des Wortes. In dieser Potency der Fluktuation haben Sie eine intrakraniale und intraspinal Kraft, die sich nie irrt, und dabei eine Tendenz zum Normalzustand hin hat, welche als Triebkraft für die Reduktion von Dysfunktionen wirkt.“ (Sutherland, 2004, II, 185)

[“Thereby we are not only conducting a potency, but a potency full of intelligence – fluid body with the BREATH OF LIFE, with „something“ invisible inside, not only a potency, but an INTELLIGENCE with a capital „I“ at the start of the word. There is intracranial and intraspinal force in this potency of fluctuation which never errs and which has a tendency towards the normal state, which acts as a driving power for the reduction of dysfunction.”]

By its tendency towards normality, the application of this force helps not only with diagnosis to help the pathologically changed but also with treatment in reducing dysfunction.

Finally it shall be stated that fingers work *intelligently* in osteopathic treatment if they use the innate natural and intelligent force for detecting and loosening the dysfunction.

3.5.3 Summary

There are two interpretations of „intelligent fingers“.

The first possibility answers the question “how?” – how are feeling, seeing, knowing and thinking fingers supposed to work? Intelligently. They use the trained sense of touch and develop an osteopathic diagnosis by connection thoughts and establishing relations.

The second option of interpretation refers to the Potency, the force inside the cranial mechanism. According to Sutherland (2004) the aim of *intelligent fingers* is to work with this force.

3.6 WISE FINGERS

The word wise is mostly listed in connection with other adjectives, compare the beginning of the chapter FINGER DESCRIPTION.

Only rarely it is mentioned alone. Here three passages are cited: „*Auch hier wandte der Arzt seine Beobachtungsgabe, sein strukturelles und funktionelles Wissen und sein Geschick in der Führung der klugen Finger bei der Korrektur an.*“ (Sutherland, 2004, IV, 75)

[“In these cases the doctor applies his ability of observation, his structural and functional knowledge and his skill in guiding his wise finger during correction.”]

And: „*Auf den Rat von Freunden hin wurde den ‚klugen Fingern‘ schließlich die Gelegenheit zur Diagnose gegeben.*“ (Sutherland, 2004, IV, 72)

[“Following friends’ advice the ‚wise fingers‘ finally got the change for diagnosis.]

Thirdly:

„*Seine häufigste Ermahnung im späteren Unterricht bezog sich auf die taktile Anwendung, auf jene klugen Finger, die einen wesentlichen Teil der authentischen osteopathischen Behandlung darstellen. Er betonte die Notwendigkeit der Leichtigkeit der Berührung: ‚Leichter, leichter, sanft, wie ein Vogel, der auf einem Zweig landet.‘*“ (Sutherland, 2004, IV, 37-38)

[“His most frequent admonition during later classes referred to the tactile application, to the wise fingers which constitute an essential part of the authentic osteopathic treatment. He stressed the necessity of the softness of touch: ‘Softer, softer, gentle like a bird landing on a twig.’”]

While studying the compendium no special indications about the significance of the word *wise* could be found. Even though it is interesting to note that the term *thinking fingers* – the fourth part of the compendium is called accordingly – was translated [into German] with “wise fingers”.

This fact and the previously mentioned quotation permit the conclusion that *wise* can be seen as an umbrella term for the other adjectives. *Wise* as a term which sums up all characteristics of the other words: seeing, feeling, knowing, thinking, intelligent.

Wise stands for: authentically osteopathic treatment according them Sutherland.

3.7 Summary

As described at the start of this chapter, the *thinking fingers* stand for the following adjectives: feeling, seeing, knowing, thinking, intelligent and wise. The subsequent question: “*What does Sutherland mean with each of these words?*” was answered in this chapter. While the first four words *feeling*, *seeing*, *knowing* and *thinking* are derived from verbs and superficially describe and activity, *intelligent* and *wise* are pure adjectives. But they all describe the “dexterity” of osteopath. The osteopathic students start to develop his fingers at the skill of

wise and intelligent feeling, seeing, knowing and thinking at the beginning of the osteopathic training.

He develops *feeling fingers* – fingers which can capture the sensation, the quality of the tissue through several layers. He develops *seeing fingers* – fingers that use visualisation and create inner, mental picture. He develops *knowing fingers* – fingers which bring conscious, cognitive knowledge about anatomy and physiology into osteopathic work and who furthermore bring unconscious intuitive knowledge and finally personal knowledge from being a patient himself. He develops *thinking fingers* – fingers that reach a diagnosis by a thinking process. He develops *intelligent fingers* – fingers which search for causes on one hand and do not try randomly and on the other hand work with the potency, the natural intelligent force of the body. He develops *wise fingers* – fingers which treat in an authentically osteopathic way according to Sutherland and Still.

The word *feeling* describes the superficial activity of the fingers regarding the sense of touch. The word *seeing* brings in another sense, the visual or facial sense. It is harder to establish a reference between the words *knowing* and *thinking* and the sense of touch, proprioception or another sense. *Knowing*, *thinking* and *intelligent* are closely related: the *knowledge brought in by the osteopaths intelligently – meaning by recognising connectivity* - leads to a diagnosis by a process of thought. According to the author's opinion the word *wise* is a kind of umbrella term, it summarizes the other adjectives.

Sutherland puts a lot of emphasis in the finger, the sense of touch and the proprioception as well as on their development during the osteopathic training – which can be observed from many of his quotations in this chapter. The interviewed osteopaths, however, distance themselves from the emphasis on the sense of touch and rather consider the development of the holistic perception based on different senses important and desirable. In the main part of this master thesis this broader perspective is explained and the term “sensing” is introduced. Furthermore it is shown which of these six adjectives the interviewees consider most appropriate for their own fingers. In chapter 6.4.12 the interviewees will explain whether visualisation is of assistance to them. The extensive chapter 6.4.2 “knowledge” will show which knowledge the osteopaths bring into the perceptual process and how they understand the term *knowing fingers*. In the chapters 6.4.9 and 6.4.10 the author deals with the questions in how far on one hand talent and on the other hand consistent training leads to *thinking fingers*.

4 FUNDAMENTALS

This master thesis the role of the hands in osteopathy is questioned. The main part of the thesis is dedicated to the questions: Who did the osteopaths' hands learn to feel? Whereby did the hands, their sense of touch and perception develop already prior to osteopathy? What could the sense of touch joyously indulge in? How was it trained prior to osteopathic education? Which factors facilitated its development in osteopathic training?

Even Sutherland – the author means: always – talks about the sense of touch.

How can SENSE OF TOUCH be defined? What is the anatomy and physiology of the sense touch?

What is PERCEPTION?

For the following chapter see: Goldstein (2008), Trepel (1999) and Thews, Mutschler, Vaupel (1989).

4.1 SOMATOVISCERAL SENSITIVITY – SOMATIC SENSORY SYSTEM

Sense of touch and proprioception are part of somatovisceral sensitivity which comprises sense modality of the skin, the mucosa, the musculoskeletal system and the intestines. The sense of touch, also called mechanoreception of the skin, and the proprioception will be discussed here – excluding the thermoreception and algnesia, which are also part of somatovisceral sensitivity. The term “somatic sensory system” refers to sense of touch and sense of pain.

4.1.1 Sense of touch

Sense of touch is a dermal sense. The skin is a sensory organ for mechanic, thermic and pain-induced stimuli. It gives information about the manifold stimuli it receives. Specific receptors are responsible for these qualities of sensation. The sense of touch has various mechanosensitive receptors, which are participate in the transmission of individual qualities of mechanoreception. The three qualities are sensation of touch, sensation of pressure and sensation of vibration. Sensation of pressure and touch can only be triggered on specific points of the skin, the so-called tactile elements. Many of them are on the fingertips – important for the osteopath – and on the lips, rather rarely on the stem.

4.1.2 Proprioception

Proprioception means the disposition of the limbs, the perception of active and passive movements of the joints and the assessment of the resistance against a certain movement. The responsible receptors are called proprioceptors and are located in muscles, fasciae, tendons, ligaments and joints and are called muscle spindle, Golgi receptors and Ruffini endings. The proprioceptors deliver information from the musculoskeletal system. In every case the appropriate stimulus is a mechanic deformation. The qualities of proprioceptions are posture sense, muscular sense and movement sense. The sense of disposition orientates via the angular position of the joints toward each other. Through integration of the information about the posture sense, the facial sense and the labyrinth, a subjective overall impression is achieved about the posture of the body in space. The information of the receptors for a sensation of strength allows an estimation of the muscular strength necessary for moving against resistance or against a certain posture of the joints. The movement sense permits the perception of direction and velocity without visual control. This is possible for active and passive movement.

4.1.3 Basic ideas of physiology of sense:

For the following chapter compare Thews, Mutschler, Vaupel (1989, 495-500)

4.1.3.1 Clinical physiology of sense

This deals with the absorption and processing of information.

The sense organs serve for the absorption of information from the environment and the body's inside parts. The information is conceived by the receptors in the form of sensory stimuli and are transposed into a series of neural agitation and transferred. The central neural system processes and integrates the incoming information. These sub-processes can be recorded with physiochemical methods and therefore this field is called "clinical physiology of sense".

4.1.3.2 Subjective physiology of sense

This chapter deals with sensation and perception.

Sensory stimuli trigger conscious sensation and perception prior to the information processing in the central neural system. If these components of experience are used to characterise the performance of the sense organs, it is called subjective physiology of sense.

If a simple sensory stimulus is registered, it delivers a sensation. The sum of sensations constitutes a feeling. In the case of feeling, only sensations without evaluation or connection

with experience are transmitted. If the feeling is evaluated by experience or knowledge, the feeling becomes a perception.

A few words about the basic dimensions of sensations:

All sensations, transmitted by specific sense organs, are assigned to a modality (sense). Additionally to the five “traditional” senses (facial sense, auditive sense, sense of smell, sense of taste and sense of touch) there are other modalities, which transmit information about the conditions on the body’s surface and inside (e.g. pain, temperature, proprioception). The modalities can be split into several qualities (e.g. in the case of the sense of taste sweet, sour, salty and bitter). The quantity characterises the intensity of a sensory impression. Sensory impressions are characterised by two basic dimensions: the temporality and spatiality. These reflect the temporal determination and the spatial attribution of an environmental or organic stimulus.

4.1.4 Systems Functions of the sensory system

For the following chapter compare Thews, Mutschler, Vaupel (1989, 455-459)

4.1.4.1 Afferent nerves and ascending pathways in the spinal medulla

The sensory system serves for the reception, transmission and processing of information reaching the organism in the form of physical or chemical stimuli. Receptors of the information are the receptors of the skin, the muscles and joints, the inner organs and higher sense organs. The stimulus information is transposed into a series of neural impulses and lead to the central neural system via the neural pathway. The afferent neural fibres of the skin receptors constitute the skin nerves. The impulses transposed via the afferent pathways enter the spinal medulla via the rear root and are lead to the brain. Collaterals of the afferent pathways lead to the stem brain in the back strand without any switchover. They predominately transmit information of the mechanoreceptors of the skin, muscles and joints. It means, they transmit information from pressure and touching stimuli on the skin. The anterolateral funiculus (tractus spinothalamicus) transmits impulses of the pain- and temperature receptors and the cerebral pathways impulses from the mechanoreceptors of the skin, muscles and joints.

4.1.4.2 Central sensory system

The posterior funicle pathways are switched over in the medulla oblongata, cross to the other side and lead with the tractus spinothalamicus to the thalamus, where in the last switchover is effected in specific nuclei. Thereafter the information from the skin-, muscle- and joint receptors are transmitted to the postcentral gyrus. As a total, the pathways for the somatosensory impulses from the receptors to the cerebral cortex consist of three to four series-connected neurons. The first areas in the cortex, which receive the signals triggered by the receptors of each sense, are called “primary sensory areas”. Those for the dermal sense lie in the area of the parietal lobe.

The postcentral gyrus is called somatosensory cortex and is divided into fields of projection. The partition corresponds to a *body schema turned upside down* and is called “homunculus”. The size of the fields to projection responds to the acuteness of the sensitive resolution capacity in the periphery. It becomes evident that some areas of the skin are represented in a disproportionately large area of the cortex. The tongue, lips, finger and toes have the largest areas.

The described „specific sensory system“ whose pathways end in the projection fields of the cortex, serves for the orientation about situations and processes in the environment and inside the body.

Additionally there is an “unspecific system” with the task of activating the cortex. The impulse from every ascending specific sensory pathway is lead to the reticular formation via the collaterals and reaches the medial thalamic nuclei. They are distributed diffusely to the entire cortex. This unspecific system is important for the maintenance of the limpidity of consciousness. It is the ARAS: The ascending reticular activating system.

In vigilambulism it is responsible for humans being able to direct their attention to specific outer appearances. This means that a selection of the flow of agitation rate, because information which does not receive attention is muted.

4.1.4.3 Sensations and perception

Sensations are psychic correlates of information which are constantly transmitted to the cortex. Data processing with the help ARAS is required for the perception – the conscious recognition – of sensations.

Sensations are on one hand object-related and are evaluated subjectively on the other hand. The object-relation serves for the recognition of the stimuli’s characteristics and stimulus localization. The subjective evaluation determines the affective attitude and triggers emotions.

The data processing takes place in the limbic system. In case of occurrence of affective reactions and experiences there are co-determining, educational and sociologic factors.

4.2 PERCEPTION OF OBJECTS

For the following chapter see Goldstein (2008, 346-348) and Grunwald and Beyer (2001, 1-12 and 187)

4.2.1 Active and passive touching:

When perceiving objects through the sense of touch and the proprioception the perceiving person can behave actively or passively. Therefore it is called “passive touching” and “active touching.”

If a person uses his sense of touch actively and controls his tactile simulation, it is called “active touching”. The fingers slide over the surface of an object, they touch and feel. During “passive touching” the person does not move his fingers actively, but lets another person move objects over his skin, whereby the contour and surface of the object is brought into skin contact. The active part of the object identification is called “haptic perception”. It is based on investigating three-dimensional objects manually.

4.2.2 Haptische Wahrnehmung

According to Grunwald and Bayer (2001) the term *haptic* comes from the Greek word „*haptesthai*“ which means gripping or touching and haptic is seen as the “theory of the sense of touch”. Grunwald and Beyer elaborate a definition of the term *haptic* which exceeds the sense of touch:

„Der haptische Sinn kann verstanden werden als eine Erweiterung des Tastsinns. Eingeschlossen wird hierbei der gesamte Körper anstatt nurmehr die `Instrumente des Tastens` wie zum Beispiel die Hände. [...] Das Haptische – betrachtet man es als ein Wahrnehmungssystem – schließt sämtliche Sensationen (Druck, Wärme, Kälte, Schmerz und Kinästhetik) ein, die vorher dem Tastsinn zugeordnet wurden. [...] Kein anderer Sinn hat so unmittelbar mit der dreidimensionalen Welt zu tun. [...] Kein anderer Sinn ist Fühlen und Tun gleichzeitig. Diese Aktion/Reaktion, wie sie charakteristisch für die haptische Wahrnehmung ist, trennt diese von allen anderen Formen der Sinneswahrnehmung. [...]“ (Grunwald und Beyer, 2001, 187)

[“The haptic sense can be seen as an extension of the sense of touch. The whole body is included instead of only the “tools of touching”, such as the hands. [...] The haptic – seeing it as a perceptual system – including every sensation (pressure, warmth, cold, pain and kinaesthetics), which were attributed to the sense of touch before. [...] No other sense deals so closely with the threedimensional world. No other sense means feeling and doing at the same time. The action/reaction which is characteristic for haptic perception separates it from every other form of sensory perception [...]”]

Goldstein (2008) also considers haptic perception a good example for a situation where several perceptual systems interact. The sensory system transmits impulses of the dermal senses such as touch, temperature or texture as well as movements and positions of fingers and hands. The motor system allows the movements of the fingers and hands. Finally, the cognitive system is responsible for information from the two previously mentioned systems is mentally processed. It is a very complex process. The movements of the hands affected during object identifications are called “haptic exploratory movements” (Eps). Lederman & Klatzky (1987) mention four Eps: Lateral motion, pressure, enclosure and contour following.

4.3 PERCEPTION

For the following chapter see Goldstein (2008, 3-20).

Goldstein (2008) mentions a main message of his book in “Sensation and perception” by saying: *„Eine der Botschaften dieses Buches ist, dass Wahrnehmung nicht nur einfach passiert, sondern das Endergebnis komplexer Vorgänge `hinter den Kulissen` ist, von denen viele Ihrem bewussten Erleben nicht zugänglich sind.“* (Goldstein, 2008, 3) [“One of the messages of this book is that perception does not simply happen but it is the result of complex processes behind the scene which are not accessible to your conscious experiences.”] He compares it to a piece in theater.

„Während Ihre Aufmerksamkeit auf das sich entfaltende Drama fokussiert ist, das die Figuren im Stück darstellen, entfaltet sich hinter der Bühne ein anderes Drama. Eine Schauspielerin hetzt zum Umziehen, ein Schauspieler läuft kurz vor seinem Auftritt auf und ab, der Bühnenmanager schaut vorbei, [...] und hinter dem Glasfenster über der letzten Reihe der Zuschauer bereitet sich der Beleuchter auf den nächsten Beleuchtungswechsel vor.

Genauso wie die Zuschauer nur einen kleinen Teil dessen sehen, was während eines Stücks im Theater tatsächlich passiert, ist Ihre ohne Anstrengung stattfindende

Wahrnehmung der Welt um Sie herum nur ein kleiner Teil dessen, was geschieht, während Sie wahrnehmen.“ (Goldstein, 2008, 3-4)

[“While your attention focuses on the developing drama which the characters in the piece represent, another drama evolves behind the stage. One actor hussles to get change, one actor runs up and down shortly before his entry, the stage manager visits [...] an behind the glass window above the last row of visitor the illuminator prepares the next changes of illumination.

Just like the visitors only see a small part of what is actually going one during a piece in the theatre, your effortless perception of the world around you is only a small part of what happens while you are perceiving.”]

4.3.1 The perceptual process

Goldstein (2008) considers perception as a sequence of individual steps and sees it as a possibility of explaining the processes „behind the scenes“. He talks about “perceptual process”. In the following figure the individual steps of these processes are arranged concentrically, whereby the dynamic and the continuous changes in this process are highlighted.

[Figure 1, Goldstein, 2008, 4)

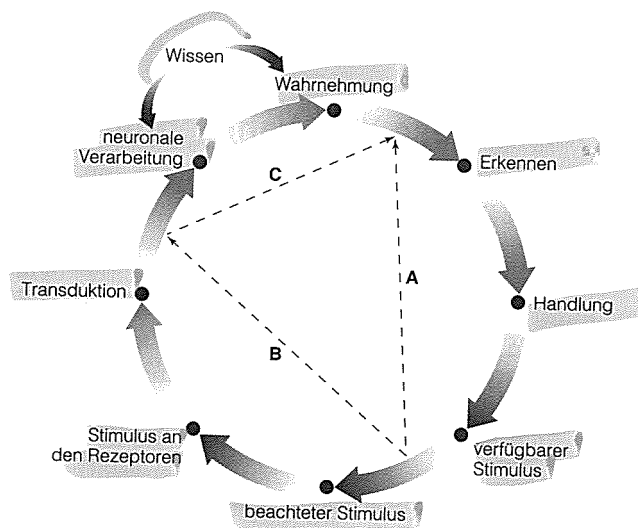


Fig. 1 the perceptual process

The first step is the stimulus. Goldstein distinguishes the environmental stimulus which consists of everything we can perceive from our environment from the attended stimulus. A stimulus becomes an attended stimulus if it becomes the center of attention. The stimulation of the receptors leads to a transformation of the stimulus. Because Goldstein (2008) does not give examples for the sense of touch, his example of the facial sense (sense of sight). If

someone sees a moth on a tree during a walk, “picture of the moth on the retina” is a transformation from “moth on a tree”. The stimulus “moth” is represented in another form. The next transformation is called transduction, because it is a transformation from one form of energy into another. It takes place in the neural system when one environmental energy – e.g. mechanical pressure – is transformed into electrical energy.

During neuronal perception the electric energy, these signals, activate other neurons which themselves activate further neurons. These neurons are interconnected through a system of neuronal pathways, whereby these signals are transmitted firstly from the sense organ to the brain and later distributed inside the brain. During this distribution the electrical signals are subject to processes of neuronal processing: the perception. „*Wahrnehmung ist bewusste sensorische Erfahrung.*“ defines Goldstein (2008). [“Perception is conscious sensory experience.”] He once again mentions the example of the moth. According to his opinion perception takes place when electric signals, which represent the moth, are transformed into the experience of seeing the moth by the brain in some way. Goldstein confirms that as soon as someone has seen the moth, he has perceived it. But he points out that the perceptual process does not end here. Two more steps are important: The recognition and the action. Going back to the example: The moth was recognized as a moth and not as a butterfly. Recognition is our ability, to categorise an object. Scientists such as the neurologist Oliver Sacks (1987) showed that perception and recognition are definitely separate processes.

Sacks (1987) mentions a patient, who could see an object and recognise parts of it, but in his perception he could not piece the components together in a way that allowed him to perceive the object as a whole. The action as a last step in the perceptual processes comprises the environmental motor activities. Someone who sees the moth steps closer to it. Action is an important result of the perceptual process.

The perceptual process is described in single steps, it “starts” with the available environmental information and “ends” with perception, recognition and action, but the process is so dynamic it does not have a real start or ending.

The chart of the perceptual process places the word “knowledge” immediately above “neuronal processing” and “perception”. It stands for every information that the perceiving person brings into a situation. Because “knowledge” is a very important term in this master thesis, it shall be discussed in the next chapter.

4.3.2 Knowledge

Goldstein cites two kinds of knowledge. On one hand it can be knowledge acquired years before and on the other hand knowledge from experiences which have just gone by. An example for knowledge acquired years before is the ability of categorising object. “One knows that a moth is not a butterfly”. Goldstein cites another example from the visual area for knowledge from an immediate experience. See figure “Rat-Man-Picture.” [Figure 2-4, Goldstein, 2008, 8-12]



Fig. 2

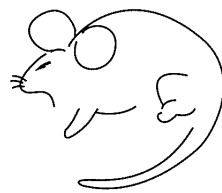


Fig. 3

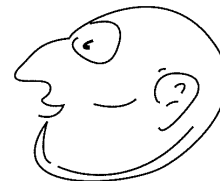


Fig. 4

People, who see 2 before, identify 3 as rat and human and those who see 4 first, see a human respectively a man in 3. This demonstration shows that knowledge which has only just been acquired (“this pattern is a rat”) can influence perception. According to Goldstein (2008) there is another way of describing the effects of information which the perceiving person brings into a situation. These are the “Bottom-up-processes” and the “Top-down-processes” (Goldstein, 2008, 8). The first one is also called stimuli-controlled processing and is based on incoming data. Incoming data are always the beginning of perception. Usually it starts with the stimulation of the receptors. The “top-down-process” or “knowledge-based process” is based on knowledge. Knowledge does not always take part in perception, but quite often and sometimes even without us realising it. Goldstein cites a very illustrative example from the visual sense:

„Wenn also eine Apothekerin liest, was für Sie möglicherweise wie ein unleserliches Gekritzeln auf dem Rezept Ihres Arztes aussieht, so beginnt sie mit Bottom-up-Verarbeitung auf der Grundlage des Musters, das die Handschrift des Arztes auf ihrer Retina hervorruft. Sie benutzt jedoch auch Top-down-Verarbeitung, die auf ihr Wissen über die Namen von Medikamenten und möglicherweise vergangene Erfahrungen mit der Handschrift dieses bestimmten Arztes zurückgreift, die ihr beim Entziffern des Rezeptes helfen.“ (Goldstein, 2008, 8)

[“When a pharmacist reads what you consider an unreadable scribble prescription by your doctor, she starts with the bottom-up-process on the basis of the pattern the doctor’s handwriting recalls on her retina. But she also uses the top-down-processing,

which reaches back to her knowledge about certain names of medicine and possible past experiences with the handwriting of this specific doctor, which help her decipher the prescription.”]

4.3.3 Investigation of perception

Perceptual investigation has set itself the aim to understand every step of the perceptual process, which leads to perception, recognition and action. Perception is seen on two different investigative levels. The first of these levels is the *“psychophysical investigation”* (Goldstein, 2008, 9), which is directed at the connection between stimulus and perception. He investigates who a person’s perception is connected with the environmental stimulation. The term psychophysics is now used in a broader sense to describe any kind of measuring of the connection between stimulus and perception, for quantitative as well as for non-quantitative methods. The second level is the *“physiological investigation”* (Goldstein, 2008, 10), which focuses on the relationship between stimulus and physiology and the connection between physiology and perception. It deals with how a person’s perception is connected to physiological processes, which take place inside a human being.

Furthermore there are factors which influence perception. These are the knowledge, the memories and the expectation a person brings into a situation. They are called *“cognitive perceptual influences”* (Goldstein 2008, 10-11). All three of them can influence relationships. Both levels of investigation, the psychophysical and physiological, give information about different aspects of the perceptual process. On one hand they are different and on the other hand closely related, which becomes manifest in the magnitude of exchange between them. One of the consequences of the close relationship is that one can learn about both levels by investigating one of them. Psychophysical measurements can be used for gaining insights about a person’s inner processes – without have to look inside a person. There are several ways of measuring perception on a psychophysical level. They will be dealt with in the next chapter.

4.3.4 Measuring perception

As stated previously, the psychophysical approach to perception focuses on the relationship between “physical qualities of stimuli“ and the “perceptual answers to these stimuli”. There are many ways of responding to a stimulus. The most important shall be mentioned here: *„das Beschreiben, das Wiedererkennen, das Entdecken, das Wahrnehmen von Ausprägungen und*

das Suchen“ (Goldstein, 2008, 12-18) [“the description, the recognition, the discovery, the perception of specification and the searching”.]

4.3.4.1 Description

It is the specification of characteristics of a stimulus. It is called a “phenomenological method” when a researcher asks a person to describe his perception or to say when a certain perception appears. This method is a first step during the investigation of perception, because it describes what is actually perceived. Such descriptions can be made on a very basic level such as „Das ist *bitter*.“ (Goldstein, 2008, 12) [“This is bitter.”] These are such common and natural observations, but investigation of perception starts here. Basic characteristics are sought to be explained.

The word “phenomenological” comes from “phenomenology”, whose founding stage dates back to the years between 1887 and 1901, according to Waldenfels (1992). Originally it dealt with the „*Beschreibung der Phänomene*“ [“description of phenomena“] (Waldenfels, 1992, 13) – it was called „*deskriptiver Psychologie*“ (Waldenfels, 1992, 13) [“descriptive psychology“].

4.3.4.2 Recognition

Recognition means aligning a stimulus with a certain category. If a stimulus is categorised through terming, in this connection recognising is measured.

Goldstein (2008) points out that the description of perception by means of the phenomenological method and the observation of a person’s ability for object-recognition reveal information about what a certain person perceives. However, he emphasizes, too, that in many cases it is useful to be able to establish a quantitative relation between stimulus and resulting perception. “Discovering” is part of that and shall be described in the following.

4.3.4.3 Discovery

„*Sich eines schwer zu entdeckenden Aspekts eines Stimulus bewusst zu werden.*“ [“Becoming aware of an aspect of stimulus which is hard to discover.”]

Goldstein (2008, 12) refers to Fechner, who describes the “traditional psychophysical methods“. These are the original methods for measuring the connection between stimulus and perception, whereby the amount of stimulus energy is measured, which is necessary for discovering a stimulus. It is called “absolute threshold” when talking about the smallest

necessary amount of stimulus energy in order to discover a stimulus. The term “differential threshold” is important and stands for the smallest possible difference between two stimuli, which can be detected by person. The traditional psychophysical methods were developed in order to measure absolute thresholds and differential thresholds. Later, the chapter about “perception of specification” deals with the perception of above threshold stimuli.

4.3.4.4 *Perceptions of specifications*

„*Sich der Größe oder Intensität eines Stimulus bewusst zu sein.*“ [“Being aware of the extent and intensity of a stimulus.”]

Goldstein (2008, 12) quotes Stevens (1957, 1961, 1962), who developed a technique called “scaling” or “method of direct magnitude estimation”, which could measure the connection between the perceived extent of stimulus and intensity of stimulus. The basic principle of this and similar methods is that the test person assigns numbers to the stimuli which are proportional to the perceived extent of stimuli.

4.3.4.5 *Search*

„*Nach einem bestimmten Stimulus innerhalb einer Menge anderer Stimuli Ausschau halten.*“ [„Searching for a specific stimulus among many other stimuli.“] (Goldstein, 2008, 12)

During “searching“ a person is requested to specify the difference between two stimuli. Thereby the exactitude of the verdict is decisive, more than the speed with which it is given. But there are investigative methods where the response time is measured. It is the time between the start of the rendition of the stimulus and the answer of the test person to the stimulus. It provides important information about the mechanisms responsible for perception.

4.3.5 Further thoughts about perception

4.3.5.1 *The indirectness of perception*

Goldstein (2008, 71-73) describes that one of the most important functions of perceptions is providing us with experiences, which connect us with our environment.

„*Sie vermittelt uns das Gefühl, in direktem Kontakt mit der Umwelt zu stehen. [...] weiß ich auch, dass dieses Gefühl direkten Kontakts größtenteils eine Illusion ist. Wahrnehmung ist, wie wir in diesem Kapitel sehen werden, ein indirekter Prozess.*“ (Goldstein, 2008, 71)

[“It conveys the feeling to be in direct contact with our environment. [...] Even though I know that this feeling of direct contact is largely an illusion. Perception is, as we are going to see in this chapter, an indirect process.”]

What does he mean by the indirectness of perception? He means the mechanisms of perception, the perceptual process. The information for the environment are created by the activity of the receptors, the environmental stimulation is transformed into electric signals, which finally creates in our brain our sensuous impression of the environment. These impressions are so reliable, they guarantee a secure orientation and directed activity. Goldstein (2008) gives an example: taking a coffee cup. He confirms that the fingers are in direct contact with the cup, but the perception, e.g. texture of the ceramic, which is based on the stimulation of pressure-sensitive receptors, which transform pressure in electric impulses. Finally Goldstein expresses his fascination: „*Es ist eine beeindruckende Eigenschaft der Wahrnehmung, dass sie trotz dieser Indirektheit so real erscheint.*“ (Goldstein, 2008, 72) [“It is an impressive quality of perception that is seems so real despite its indirectness“]

4.3.5.2 Plasticity – the specialisation of neurons

How can a specialisation be achieved? Goldstein (2008, 91-94) lists two possibilities: On possibility is the specialization having come pass through evolutionary processes. This means that people are born with selectively answering neurons. The second possibility is that these neurons „*durch einen Prozess unter Beteiligung der individuellen Erfahrung einer Person spezialisiert werden, während die Person alltägliche Dinge in ihrer Umgebung wahrnahm.*“ (Goldstein, 2008, 91) [“are specialised through a process under the participation of the individual experiences of a person, while the person perceived common things in his environment.”] He describes that common experiences specialise neurons. Goldstein refers to Kanwisher (2004) when stating that is difficult to distinguish clearly between the evolutionary implicitness of a certain ability and educational causes. By the specialisation of neurons the sensory systems adapt to the specific environment of a person. This process of adaptation is called “experience-connected plasticity”. It characterises the process in whose course neurons develop in such way that they respond strongly to those forms of stimulation the person was exposed to most frequently. “At least partly” the specialisation of neurons seems to be the result of neuronal plasticity. (Goldstein, 2008, 93)

Later in his book Goldstein gives an example for neuronal plasticity, which corresponds to this master thesis. He comes back to the somatosensory cortex and describes an experiment

by Jens and Merzenich. They prove that increasing stimulation of a specific area of the skin provokes an extension of the cortical area, which receives the corresponding signals. This map of the body in the somatosensory cortex was previously seen as unchangeable. But it became evident that it is not entirely unchangeable, but is able to change. In this experiment, Jenkins and Merzenich (1987) measured the cortical areas which correspond to each fingers of apes. They trained the animals to a certain skill, which required the extensive use of a certain region on the fingertips. The comparison of the cortical map of the fingertips immediately prior to the training and three months later showed, that the area representing the stimulated fingertip had extended strongly during training.

[Figure 5, Plasticity, Goldstein, 2008, 340]

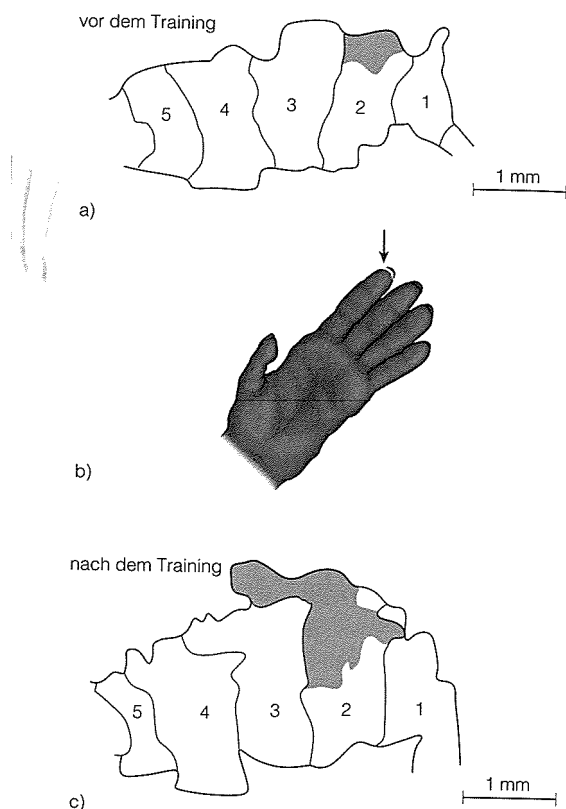


Fig. 5

Among people, predominately musicians were examined. In their case too an above average cortical representation of the used fingers could be observed.

Neuronal plasticity leads to a larger cortical area for frequently used parts of the body.

4.3.5.3 Attention and perception

Goldsteins (2008, 131 – 153) goes into the following matter: “Is attention necessary for perceptions?” and “Does attention improve perception?”

In order to do so, he explains two terms at first: Die first one is „*geteilte Aufmerksamkeit*“ (Goldstein, 2008, 132) [“shared attention”]. It means that attention is distributed to several things at one. The ability to share attention, however, is limited. The „*selektive Aufmerksamkeit*“ (Goldstein, 2008, 132) [“selective attention“] (Goldstein, 2008, 132) on the other hand means focussing on specific things and ignoring others. In his further explanations Goldstein focuses very much on visual sense – and the author will include them due to a lack of examples referring to the sense of touch. Selection is necessary, because our sensory system is not able to process all information at once. The systems built to select a small part of information for processing and analysing. Two mechanisms stand behind selective attention. On one hand the „*Scannen einer Szenerie*“-(Goldstein, 2008, 133-135) [“Scanning of scenery”]. In visual sense it is the eye movements which affect a focus on locations that shall be processed more intensely. On the other hand, mental processes also select. Attention leads to some things step forward. “Scanning of a scenery“, however, depends on several factors. „*Die Eigenschaften der Szenerie, die Bedeutung der Szenerie und das Betrachterwissen*“ and „*die Aufgabe bzw. das Ziel des Betrachters*“ (Goldstein, 2008, 134-135) [“the characteristics of scenery, the importance of the scenery and the knowledge of the observer“ and “the task respectively the aim of the observer“] are cited. About “characteristics of scenery” it can be said: Areas or parts of a thing, be it an object or e.g. a picture, can have a high “stimulus salience” when they are noticeable, when they attract attention due to their characteristics. Concerning the second point it can be said, that scanning is influenced by a person having captured the meaning of a scenery and possesses knowledge about the characteristics about a certain kind of scenery. In experiments it showed that scanning of a scenery was above all dominated by the task. The demand of the task prevails over factors such as stimulus salience. Goldstein concludes that *Aufmerksamkeit einer der Hauptmechanismen der Wahrnehmung* ist (Goldstein, 2008, 135) [“attention is one of the main mechanisms of attention.”]. Attention is not required for perception when only a general experience about the “mood” of a scenery should be achieved. However, focussed attention is required, when specific details of a scenery and details of specific object should be observed. The term “blindness through lack of attention” describes a situation when an ignored stimulus is not perceived, not even when a person looks at it directly.

The “blindness to change“ proves difficulties in observing changes in a scenery. In the first case several stimuli were provided at the simultaneously and in the second case one after the other.

Furthermore experts indicate that attention increases our ability to quickly react to a stimulus. Die information processing of a location which receives the focus of our attention becomes more efficient. If attention is directed to a specific point of an object, the thereby provoked improvement of the information processing spreads to the entire object. This “spreading intensifying” helps detecting hidden objects. Consciousness is extended through the object. Goldstein quotes Carrasco (2004) who discovered that attention highlights the appearance of an object.

Goldstein summarizes the explanation so far:

„Wir haben gesehen, dass Aufmerksamkeit einer unserer primären Mechanismen zur Konzentration auf wichtige Dinge in der Umwelt ist, dass das Beachten eines Objekts dieses in den Vordergrund unseres Bewusstseins rückt und dass dieses beachten sogar das Erscheinungsbild des betreffenden Objekts verändern kann. Weiterhin kann das Nichtbeachten eines Objekts dazu führen, dass es uns komplett entgeht.“ (Goldstein, 2008, 144)

[“We have seen that attention is one of our main mechanisms for concentrating on important objects of the environment, that observing an object moves it into the center of our consciousness and that observation can even change the image of the concerned object. Furthermore, ignoring an object can lead to us totally disregarding it.”]

He deals with another function of attention, „the binding“. This means the process through which individual characteristics of an object are combined, in order to create the perception of a coherent object. Separate cerebral areas specialise in the perception of different qualities. E.g. there are areas for the perception of shapes, others for movement and position and others for colours. When e.g. red ball rolls by, neurons fire in different areas of the cortex, but our perception is an “integrated perception” of a red ball, not one of separate perceptions of shape, movement and colour. How can all these physically separated neuronal signals become a combined perception? This question is called binding problem and can be answered on two different levels. Firstly, on the level of behaviour with the feature integration model. This means, in a simplified manner:

„Die Konzentration von Aufmerksamkeit auf das Objekt setzt die Stufe der aufmerksamkeitsgerichteten Verarbeitung in Gang und diese fokussierte Aufmerksamkeit kombiniert oder `bindet` die Objektmerkmale zu einer kohärenten Wahrnehmung des Objekts“ (Goldstein, 2008, 145)

[„The focus on attention on an object triggers the level of process of directed attention and this focussed attention combines or binds the object’s characteristics to a coherent perception of the object.”]

Traismann (1999), quoted by Goldstein, calls attention „glue“ (Goldstein, 2008, 145).

Secondly, the binding problem is answered on a physiological level. The brain combines information which is contained in neurons of different location? The synchronizing hypothesis. The basis are the anatomical connection between the areas, in order to allow neurons to communicate. The hypothesis says *„dass in dem Fall, dass Neuronen in verschiedenen Teilen des Kortex als Antwort auf dasselbe Objekt feuern, das Muster der Nervenimpulse in diesen Neuronen miteinander synchronisiert wird.“* (Goldstein, 2008, 148) [“in case neurons in different parts of the cortex fire as an answer to the same object, the pattern of neural impulses in these neurons is synchronised.”] Synchronization combines answers to the same objects. Proof exists that attentions increases synchronization.

4.4 SENSORY INTEGRATION

For this chapter compare Ayres (2002) and Kiesling (2006)

Our senses provide information about the physical condition of our body and about the environment around us. Sensations flow into the brain and have to be arranged and ordered, to make people be able to move normally and learn to behave normally. If the sensation reaches the brain in a well-organised, i.e. integrated manner, it can use them to form sensations, behaviour and learning processes. If the low of sensations is not organised, life will be organised too. Sensory intergration is *„die wichtigste Art und Weise sinnlicher Verarbeitung!“* (Ayres, 2002, 7) [“The most important way of sensuous processing.“]

Which senses are they? There are three „basic senses“, Ayres calls them “near senses”, which work with sensory stimuli, which are created by to body or perceived by it. Among them the tactile system, called skin system, the proprioceptive system and the vestibular system, meaning the equilibrium. The far senses include hearing, smelling, tasting, seeing, sense, which receive their stimuli from far away. The sensory intergration *„bringt alles zusammen“*. (Ayres, 2002, 8) [“compiles all“]. All sensory integration is compiled in the brain and thus it is made possible to recognise the object as a whole and also to used hands and fingers coordinatedly. *„Die Integration führt Empfindungen in Wahrnehmung über“* (Ayres, 2002, 8)

[“The integration converts sensations to perception.“] We can perceive something, because our brain converts sensations to meaningful forms and relations.

Child’s play stimulates the sensory integration, because the child combines all senses. Every child is born with a basic ability, but has to develop its sensory integration by constant dealing with many things in environment and has to adapt its body and brain to many physical challenges during childhood. This development happens via adaptive reactions. *„Bei einer Anpassungsreaktion überwinden wir die Herausforderungen, die sich uns stellt, und lernen etwas Neues hinzu. Zur gleichen Zeit hilft diese Anpassungsreaktion dem Gehirn, sich zu entwickeln und weiter zu organisieren.“* (Ayres, 2002, 10) [“During adaptive reaction we overcome the challenges we face and learn something new. At the same the adaptive reaction helps the brain to develop further and to get organised.”]

The first seven years in the life of a child are called the years of „sensomotor development“. The child doesn’t think much about things but is busy feeling and letting its body react. It captures the meaning of things directly through sensations. When a child gets older, mental and social reactions substitute parts of the sensomotor activity. But mental and social reactions are based on sensomotor processes. *„Die sensomotorische Integration, die sich beim Bewegen, Reden und Spielen vollzieht, ist die Grundlage für die komplexere sensorische Integration, die nötig ist für Lesen, Schreiben und gutes Verhalten.“* (Ayres, 2002, 11) [“The sensomotor intergration occurring while moving, talking, playing is the basis for the more complex sensory integration required for reading, writing and good behaviour.”]

The integrational function of the sensuous perception develops in a natural order, whereby each child has to go through the same basic levels. If the ability for sensory integration is sufficiently developed in the brain, the reaction of the child to the challenges of the environment is meaningful, creative and satisfying – it has fun. *„In gewissem Sinn ist Spaßhaben ein Inbegriff für gute sensorische Integration des Kindes“* (Ayres, 2002, 11) [“In a certain way having fun is the epitome for good sensory integration of the child.“] A child grows with its tasks, when sensations can be answered with respective reaction which are more mature and more complex than before.

People have a more or less well-developed sensory integration. If the brain badly processes sensory perception, it leads to different problems. Such people have to struggle more, learn more slowly or have behavioural problem.

4.5 RELEVANCE AND REFERENCE TO THE QUESTION

Sutherland often talks about the sense of touch – see chapter 3 – it is important to define this term. The sense of touch stands for superficial sensitivity and transmits sensations of touch, vibration and pressure. The proprioception on the other hand provides information about sense of posture, strength and movement. It is striking that Sutherland talks more about the sense of touch and less about proprioception. Here one of the few quotations about proprioception: *„Wenn sie sich nicht einmischen, werden ihre Hände von der inneren Bewegung in ausreichendem Maße bewegt, sodass Sie sie über Ihre propriozeptiven sensorischen Bahnen spüren können.“* (Sutherland, 2004, I, 140). [“If you do not interfere your hands are moved sufficiently by the inner movement, so you can feel them through your proprioceptive sensory pathways.”] The sense of touch can provide information about the condition of tissue and their posture: *„Dieser Zustand kann durch unseren Tastsinn leicht diagnostiziert werden.“* (Sutherland, 2004, II, 104) [“This condition can easily be diagnosed by our sense of touch.”]

Sutherland refers often to the sense of touch when talking about mobility of structures and tissues which, in the authors opinion, come from the superficial sensitivity AND the proprioception – compare “sense of movement” at the start of this chapter: *„Es kam eine Zeit, in der [...] die rhythmische Fluktuation der Zerebrospinalen Flüssigkeit ebenfalls durch den Tastsinn beobachtet werden konnte.“* (Sutherland, 2004, IV, 43) [“There was a time when the [...] the rhythmic fluctuation of the cerebrospinal fluid could also be observed by the sense of touch.”] One might conclude that Sutherland uses sense of touch in a broader sense, similarly to Grunwald: *„Der haptische Sinn kann verstanden werden als eine Erweiterung des Tastsinns. Eingeschlossen wird hierbei der gesamte Körper anstatt nurmehr die `Instrumente des Tastens` wie zum Beispiel die Hände.“* (Grunwald, 2001, 187) [“The haptic sense can be understood as an extension of the sense of touch. The whole body is included, instead of only the “tools of touch” such as the hands.”] This means that additionally to superficial sensitivity and proprioception haptic is defined in this chapter. It includes several senses and perceptual systems – among other kinaesthetics. Haptic is mentioned directly by one interviewee – see chapter 6.4.18.3 and it comes up indirectly in several chapters, because it is *„Fühlen und Tun“* [“feeling and doing”] at once (Grunwald, 2001, 187), as it is characteristic for osteopathic fingers.

A major part of these “basics” deals with perception per se. Sutherland also talks about *„wahrnehmenden Fingern“* (Sutherland, 2004, IV, 45) [“perceptive fingers“]. Sensations are

defined as psychic correlates which are constantly transferred the cortex and perception is the active recognition. While perceiving objects the perceiving person can behave actively or passively, which also comes up as topic among the questioned osteopaths – compare chapter 6.4.3.4.

The perceptual process described by Goldstein (2008) provides an option to look behind the scenes of perception – and also behind the scenes of the interviewed osteopaths' perceptions. This processes is provoked by a stimulus, which is processes neuronally, which leads to sensations and finally to perceptions, respectively recognition and triggers a reaction. In the chapter dealing with results it is explained, how and with what kind of preparations the interviewees approach the perceptual process. It shows which knowledge the interviewees bring into this process – previously it was explained, that knowledge influences this process. The perceptions of the interviewed osteopaths can be investigated or measured with psychophysical methods. These perceptual measurements are the basis for being able to communicate about the perceived – see chapter 6.4.7 – 6.4.8.

In this chapter it was laid out that neuronal plasticity is responsible for the specialisation of neurons. Everyday experiences respectively, repeated, similar stimulation specialises neurons, creates abilities. The cited experiment with the apes shows, that the area in the somatosensory context, which represents the stimulated fingers, extended a lot during training. The finger training of the osteopaths and their practising was highlighted as well and the question arises whether the “osteopathic dexterity” is a result of „*evolutionärerem Einbau sind oder lern- und trainingsbedingt*“ (Goldstein, 2008, 91-93) [“built in evolutionarily or provided by training and practising.”] In chapters 6.4.9 and 6.4.10 the question is asked whether this is “nurture” or “nature” – training or talent?

The term of attention explained in this chapter, which is a main mechanism of perception, according to Goldstein, is picked up again in the main chapter when the interviewees give their corresponding opinion.

Finally the chapter about Sensory Integration is a natural sequence, because according to Ayres (2002) it is the sensuous processing and the arrangement of sensations. It is necessary to transform sensations into useful perceptions and constitutes the basis for later abilities, such as reading and writing. It can be assumed, that Sensory Integration is an important basis for the very special abilities of osteopathic fingers. In the chapter about pre-osteopathy it is explained how the interviewees acted out and integrated all their senses already during childhood and later during their spare time and also in a professional area. The factor of „*Spaßhaben!*“ (Ayres, 2002, 11) [“Having fun!“], as stressed by Ayres can be found in the

main part of this master thesis and show how motivated the interviewees are, with how much joy they tackle the challenges of the finger training and how much fun they have.

5 METHODS

For this chapter see Kaufmann (1999)

5.1 Qualitative methods

For this master thesis the qualitative method of the guideline-based interview was used. Additionally, the essence of understanding interviews was used, in order to „um auch das Sich-Einlassen des Befragten zu bewirken “ (Kaufmann, 1999, 25). [“provoke the engagement of the questioned person.”] Kaufmann sees the understanding interview as a counterpart to the impersonal, standardised interview. The latter is characterised as follows:

„Es wird die Fragestellung im wesentlichen in der Anfangsphase [der Untersuchung] formuliert, dann wird das Befragungsprotokoll als Instrument für die Überprüfung der Thesen und für die Datensammlung festgelegt. [...] die Liste der Fragen muss standardisiert und klar festgelegt werden, und die Art und Weise, wie das Interview geführt wird, muss von der Zurückhaltung des Interviewers gekennzeichnet sein. Und schließlich bemüht sich die Inhaltsanalyse, sich so strickt wie möglich an die Daten zu halten, ohne sie zu interpretieren.“ (Kaufmann, 1999, 30)

[“Basically the question is framed in the first period [of the study], then questioning protocol is set as an instrument for the evaluation of the thesis and for the collection of data. [...] the catalogue of questions has to be standardised and clearly defined and the manner, in which the interview is conducted has to be characterised by the restraint of the interviewer. And finally the analysis of content aims to stick as closely to the data without interpreting them.”]

Because of its character being antithetic to the impersonal interview the understanding interview is apt for this study. According to Kaufmann it starts with ideas, continues with field investigation and constructs a theoretical model with this background. In the case of the impersonal or “classical” interview a hypothesis is elaborated which is then assessed using a certain procedure. Understanding interviews turn the elements method and theory around: „Das Untersuchungsterrain ist nicht mehr eine Instanz zur Überprüfung einer vorher formulierten Fragestellung, sondern der Ausgangspunkt für diese Fragestellung. [bzw. für die Theorie].“ (Kaufmann, 1999, 30) [“The field of study is not only an instance to evaluate a primarily formulated question, but the origin for a question [respectively for the theory].] The list of questions is not standardised, but elaborated in the manner of a guideline. The

interview does not remain reserved, but his composure is a „*ein ständiges Hin und Her zwischen Verstehen, aufmerksamem Zuhören, Distanzierung und kritischer Analyse.*“ (Kaufmann, 1999, 32) [“a constant back and forth between understanding, attentive listening, stand-off and critical analysis.”] The content analysis is the theoretical elaboration of the interview contents. Kaufmann calls his process „*Einen Gegenstand konstruieren*“ (1999, 28). [“Constructing a certain matter.”]

The word “guideline-based“ adverts to listed questions, which constitute a „*flexible Orientierungshilfe*“ (Kaufmann, 1999, 65) [“flexible orientation guide”] for the interviewer, in order to make the informant talk about a certain topic.

Subsequently this theory about the guideline-based, understanding interview shall be applied concretely to this study about the perceptual cohesiveness of the osteopathic hands. The way from the initial question of the author to the evaluation of data.

5.1.1 The initial question

„*Eine Forschungsarbeit beginnt mit der Wahl eines Themas. [...] Das ideale Thema ist klar und motivierend: Der Forscher weiß, wohin er sich begibt, und er hat Lust, sich dorthin zu begeben, weil er spürt, dass es dort etwas zu entdecken gibt.*“ (Kaufmann, 1999, 49)

[“A research starts with the choice of a subject. [...] The ideal topic is clear and motivating: The researcher knows where he is going and he is motivated to go there, because he feels that there is something to discover there.”]

The topic of this master thesis is the hands of osteopaths. Already prior to her osteopathic training the author was fascinated by osteopathically working hands – see the chapters “Preface” and “Introduction”. This fascination and curiosity were the main reasons to do an osteopathic training at the WSO. The author wanted to experience herself, how her hands were schooled in feeling and develop themselves. The experience of her own process together with the astonishment of different pace in different phases of development of the sense of touch and feeling, with being at odds with the stops and blockades and the relief over support, made her curious for the process of other osteopaths. The author felt like delving into the experiences of her colleagues.

Kaufmann (1999) advises to restrict the topic through a „*theoretisches Gerüst*“ (Kaufmann, 1999, 49) [“theoretical framework”]. In this study the restriction comes to pass through a focus on the sub-topics: 1. The meaning of hands for the interview partner. 2. The role of the hands prior to the osteopathic training. 3. The training of perception during the osteopathic

training. These three topics play the „*Rolle der Leitlinie*“ (Kaufmann, 1999, 50) [“role of the guideline“]. According to Kaufmann, the topic has to be based upon one or more hypothesis, in order to „*theoretische Gehalt Gestalt annehmen kann*“ (Kaufmann, 1999, 50) [“give the theoretical content a shape.”] The author retrieved these hypothesis form self-reflexion.

5.1.2 Literature

„*Es gibt keine Forschung ohne Lektüre.*“ (Kaufmann, 1999, 53) [“There is no research without literature.“] During the explorative phase in this study, the author dedicates herself intensely to the study of Sutherland’s compendium. The authors considers the term “thinking fingers” very appropriate for osteopathically trained hands. This term describes the function of osteopathically working fingers. A basic question of this study is: How do hands, respectively fingers of osteopaths in training become “thinking fingers”? Therefore Sutherland’s compendium was studied intensely, in order to clarify, what Sutherland himself means. The interpretations are explained in the chapter “Finger description”. The “thinking fingers” were incorporated into the guideline.

Additionally to the compendium Goldstein’s „*Wahrnehmungspsychologie*“ [„Sensation and Perception“] was used as literature for the basis of the senses and the perception. Kaufmann’s “Das verstehende Interview” [“The understanding interview”] brought the author closer to the method of interviewing.

Kaufmann advises not to over-extend the first reading phase, „*weil die Problemdefinition findet anschließend schrittweise in der Konfrontation mit den Fakten statt.*“ (Kaufmann, 1999, 54) [“because the definition takes place later on in the gradual confrontation with facts.”] The data-collection form the interview leads in this study to further reading.

5.1.3 The guideline

Kaufmann recommends „*eine Reihe von wirklichen, präzisen und konkreten Fragen.*“ (Kaufmann, 1999, 65) [“a series of real, precise and concrete questions.“] The sequence has to be logical, arranged in sub-topics and shall form a „*kohärentes Ganzes*“ [“a coherent whole”] (Kaufmann, 1999, 66). The guideline should be memorised, respectively “be forgotten“ in the ideal case in favour of a good conversation dynamic. Kaufmann considers the opening questions important, because „*sie geben für das weitere Gespräch den Ton an.*“ (Kaufmann, 1999, 66) [“they set the tone for the subsequent conversation.“] Question shall be arranged hierarchically and crucial questions shall be asked slightly time-delayed. The guideline can be altered during specific interviews. E.g. in this study the author decided during the first

interview to alter question 6, because it was too complex and a lot of conversational data could already be collected when question 6 was due to be asked. Additionally, the new question was more valuable in regards of content. Die old question was: “What are feeling fingers for you? What are seeing ones? What are thinking ones? What knowing ones? And what are intelligent and clever fingers?” The new question was: “Which of these words describes your hands best? Feeling, seeing, thinking, knowing, intelligent and clever?”

Here follows the complete guideline:

Introduction:

1) What are these – your – hands for you? How do you see them – how would you describe them?

Time prior to the osteopathic training (OT):

2) What role did the hands and the feeling with the hand prior to the OT? Are there any special feeling experiences, stories?

3) How and whereby were your hands trained prior to the OT? In job-related training or further education or just “somehow else”?

Time during the OT:

4) How did you experience feeling craniosacral movements? Was it hard or easy to recognize them?

5) How did you learn to communicate with tissue?

6) Which of the following words describes your hands best? Feeling, seeing, thinking, knowing, intelligent and clever?

7) How quick/slow did your hands/fingers develop? Continuously or in stages of development? Was and is practising important? Is a certain talent required?

After the OT:

8) What and how did your hands learn after the OT with regard to feeling?

Closure:

9) What is your fascination with your hands?

5.1.4 The interviews

„Der Austausch zwischen Interviewer und Interviewtem soll so intensiv wie möglich sein“ (Kaufmann, 1999, 70). [“The exchange between interviewer and interviewee should be as intense as possible“]

In an understanding interview this is achieved by breaking the hierarchy between the two interlocutors. It should be a conversation between two equal individuals, where the interviewee does not automatically subordinate and dutifully answers. The interviewee has to feel that he is taken serious and that he is listened to attentively. He *„ist gefragt, weil er über ein wertvolles Wissen verfügt.“* (Kaufmann, 1999, 71) [“is asked because he possesses valuable knowledge.“] During this relationship in exchange a real balance shall be achieved and the interviewee will *„noch tiefer in sich abtauchen, um noch mehr Wissen hervorzuheben.“* (Kaufmann, 1999, 71) [“dive deeper into himself and bring forth even more knowledge“] The composure of the interviewer should be friendly, positive and open for everything his counterpart says. According to Kaufmann it is *„nicht nur möglich sondern sogar ratsam, sich nicht darauf zu beschränken, Fragen zu stellen, sondern auch zu lachen, herauszuprusten, Komplimente zu machen, kurz: seine eigene Meinung darzutun, einen Aspekt der Hypothesen zu erklären oder unmittelbar zu analysieren, was der Informant gerade gesagt hat, es sogar zu kritisieren [...]“* (Kaufmann, 1999, 78) [“not only possible but advisable not to limit oneself to asking questions, but to smile, laugh out loud, making compliments, in short: giving one’s own opinion, explain an aspect of the hypothesis or analyse directly, what the informant just said or even criticising it [...]”].

Follow the facts regarding the seven conducted interviews:

Six female and one male osteopath were interview who have already completed their OT. Six interviewed persons (IP) have physiotherapy as a basic training, one IP is a medical doctor. IPS were chosen who resemble each other: Osteopaths who according to themselves like to work craniosacrally and do so often, who did a postgraduate training, who do biodynamics or infant-osteopathy and six of them have experience in assisting at the WSO or at the OZK (osteopathic centre for infants). Mainly they are colleagues of the author of whom she knows from conversations or their work or their publications that have dealt with the subject of “hands” or share a similar fascination with hands with the author.

The seven interviews were conducted between March 19, 2007 and May 7, 2007. The longest interview lasted 51 minutes, the shortest 37 minutes. All shared a mean value of about 40 minutes.

The interviewees were contacted personally or over the phone, where the date and place were agreed upon. In order to guarantee a relaxed atmosphere and to limit the effort for the IP, the author responded to the wishes of the IP regarding the choice of place. Five of the interviews were conducted near or in the office of the respective IP, the other two on shared advanced training courses.

The course of the interview was organised as follows: First the author expressed her happiness about their willingness to do an interview by saying “thank you”. Thereafter she explained the topic and the aim of the interview to the IP and guaranteed the anonymisation of the statements. The temporal frame was set to about 45 minutes. The recommendations by Kaufmann regarding the conduction of an interview as mentioned above were carried out as well as possible and classical techniques such as “digging deeper” were used. Short breaks were given, in order to look at the guidelines after a dynamic conversational part. It became obvious that after about half an hour a first fatigue presented itself in the conversation, whereafter the conversation was slowly brought to an end.

5.1.5 The transliteration

The interviews were recorded with an mp3-player and transliterated. According to Dittmar (2004) a faultless sound quality of the recording is a precondition for a reliable transliteration. He requires two basic demands for the recording: firstly *„sollen Hintergrundgeräusche vermieden werden und zweitens sollen Mikrofone an der richtigen Stelle, ganz in der Nähe der aufnehmenden Person, platziert werden.“* (Dittmar, 2004, 54) [“background noise is to be avoided and second the microphones shall be placed at the right spot, very close to the person being recorded.”] Two of the seven interviews do not meet these demands very well. Interview 4 was conducted in an outdoor restaurant, where the background noises of the wind and the streetcar made it hard to understand the voices. It could be transliterated, even though with difficulties. During interview 6 the microphone was placed too far away. This interview has to be remastered on the computer in order to guarantee it could be transliterated.

According to Dittmar, the transliteration or “written outline” is the important step between collection of verbal data and scientific evaluation. The symbols “. , ? !” are used in their usual

application, three dots “...” distinguish a clear break, capital letters identify stressed words and nonverbal elements such as laughing are written in brackets. Affirmative comments are written down as “mh”.

The lines on a page as well as the pages of the interview are numbered in order to be able to relocate quotations.

5.1.6 Scientific data evaluation

„Der eigentliche Beginn der Untersuchung findet erst dann statt, wenn sich der Forscher angesichts der Berge von Kassetten, die sich vor ihm auf türmen, entschließt, sich mit dem, was sie beinhalten, auseinanderzusetzen, um am Ende zu einem ausgearbeiteten soziologischen Text zu gelangen.“ (Kaufmann, 1999, 112) [“The study only actually starts when the researcher, facing a mountain of tapes, decides to dedicate himself to their content in order to achieve an elaborate sociological text in the end.”] This phase is called content analysis. On one hand, the development of theory is the goal, on the other hand it is a *„konkretes Arbeitsinstrument“* (Kaufmann, 1999, 113) [“concrete tool”]. The author should feel into the informant with willingness and energy. *„Der Forscher muss seinen Gefühlen freien Lauf lassen, um verstehen zu können.“* (Kaufmann, 1999, 115) [“The researcher has given free rein to his feeling, in order to be able to understand.”] Especially feelings make him attentive for certain parts of the material. *„Später kommt das leidenschaftslose Ordnen der Konzepte und die Endphase ist geprägt durch Objektivierung.“* (Kaufmann, 1999, 115) [“Subsequently follows the impassionate arranging of the concepts and the final phase is characterised by objectification.”]

Firstly, the present interviews were dealt with and evaluated separately. During the next step, these individual analyses were correlated. Categories were formed, which were on one hand already questions in the guideline and on the other hand showed a new aspect. Relevant quotations of the IP were included in the text.

6 RESULTS

This chapter describes the results of the study regarding the topic “The hands of osteopaths and their special perception training”. They are the results of seven conducted interviews manifested. The first chapter “First thoughts concerning the hands” expresses the first thoughts of the osteopaths. The next chapter “The role of the hands prior to the osteopathic training” (OT) deals with feeling experiences and nice stories surrounding the topic “hands”. The chapter “Pre-osteopathic training of the hands” poses the question in more detail, whereby the ability of the hands was developed already and possibly were prepared for osteopathic work. Chapter four “Osteopathic training of the hands” is the actual main chapter and describes the very special perceptual development of the fingers. By describing the support and blockades the development of the hands is highlighted. Finally chapter five, which is the last chapter, describes the “never-ending fascination” of the osteopaths interviewed concerning their fingers continuously acquiring knowledge.

Quotations from the interviews will underline the results. After each quote, interviewee 1-7, page and line of the interview is cited in brackets, e.g. (IP1, 1,2) stands for interviewee 1 – the persons were anonymised – page 1, line 2.

6.1 FIRST THOUGHT CONCERNING THE HANDS

The first question of interviews was: What are your hands for you? How would you describe them?

The answers, the interviewees’ first thoughts, are reproduced here. Three main topics emerged: the hands’ role on the job, the hands as a sense organ and the evaluation of the hands’ importance.

6.1.1 The hands’ role on the job

These lines are to be found as an introduction to this chapter in Sutherland:

“Das Gebot ‘Nicht anfassen!’ gilt nicht für den Osteopathen. GOTT gab ihm die Werkzeuge zum Fühlen. Lasse ihn also berühren. Verbiete es ihm nicht. Aber bringe ihm zuerst das Fühlen bei. Die berufliche Aufgabe des Osteopathen ist vorrangig eine Aufgabe der Finger.“
(Sutherland, 2004, II, 19)

[“The command “Do not touch!” is not valid for the osteopath. GOD gave him the tools to touch. So let him touch. Don’t forbid it to him. But teach him how to touch first. The professional task of the osteopath is primarily a task of the fingers.”]

A tool is a device for a specific manual occupation. In this case, the hands are THE tool for carrying out osteopathic work, which is described partly by “feeling” and “touching”.

The interviewees express the following thoughts.

Six of the seven interviewees (IP) call the hands a tool, a working tool right at the start of the interviews and talk about the professional use of the hands; contrary to IP5. He mentions the word too, but refers to the use of hands in everyday life. „*Meine Hände sind mein Werkzeug. Ja, mit dem begreife ich die Welt.*“ (IP4, 1, 21 und 25) [“My hands are my tool. Yes, I handle the world with it.”] IP1 is the only one not to mention this word, but stress the importance of the hands throughout the professional career. IP3 expresses his fascination with his osteopathic working tool as follows:

„Meine Hände sind mein wichtigstes Werkzeug. Ahm, fast mein wertvollstes. Sie sind auch extra versichert, sehr hoch. Was ich schon vor, also die Versicherung eigentlich erst zu Osteopathzeiten dann abgeschlossen, weil mir da erst bewusst worden ist, wie, wie wichtig jeder Finger ist. Ahm, ah, ich denk mir, ohne Hände wäre das Arbeiten wirklich sehr schwierig. Das heißt, die Hände sind wirklich das aller- der allerwichtigste Teil, [...]“ (IP3, 1, 20-25)

[“My hands are my most important tool. Eh, nearly my most valuable one. They are separately insured, very highly. I did that prior, well I contracted the insurance during my time as an osteopath, because only then I came to realise, how very important each finger is. Eh, I think without hands working would be very difficult. Meaning, the hands are really the most important part.”]

He talks about „Zeug zum Arbeiten“ [“tools of trade“] and instantly stresses the importance of his hands. Since more statements were made about the importance of hands, they are subsumed in chapter 6.1.4.

IP4 describes his hands as „*mein Schatz*“, „*das ist das `Um und Auf` in meiner Arbeit*“ and „*Das ist das Werkzeug für mich schlechthin, ja*“ (IP4, 1, 12-15 und 36) [“my treasure“, “the bread and butter in my work“, “For me the working tool par excellence, yes“]. He speaks about having a photograph of his hands on his folder. More expressions are mentioned, such as „*Instrument*“ [“armamentarium”] and, with a chuckle, „*große, große Spürfinger*“ [“large, large feeling fingers”] by IP6. (IP6, 1, 26-28). “Armamentarium” is used as a synonym for “tool” and the “feeling fingers” describe the profession.

IP7 is the only one to mention right at the beginning his sports, where he uses his hand quite a lot as well.

6.1.2 The hands as a sense organ

Two IP (1,2) consider the hands important as a sense organ, as locus of the sense of touch, but instantly stress that ever other sense became more important during osteopathic training. For IP1 the hands are now more of an outer symbol of approach and every other sense is just as important as the hands. IP2 says:

[...] „Also die Hände sind mein Arbeitswerkzeug, nur ist das nicht nur auf die Hände, also, im Laufe der letzten Jahre hat sich das verändert und es ist nicht nur auf die Hände bezogen mehr. Also ich hab nicht so das Gefühl, dass die Hände jetzt nur mehr spüren, sondern es sind andere Sinne dazugekommen, die Teile übernehmen.“ (IP2, 1, 6-12)

[“Well, the hands are my working tool, but it’s not only the hands. During the last years this changed a lot and does not only refer to the hands anymore. I don’t think that the hands do all the feeling, but other senses joined which are taking over some parts.”]

IP3 expresses it differently. He does not distinguish between the hands as the locus of one sense and the other senses, but the hands unite more senses:

„Und dann, für mich ist es schon auch immer so dieses, dass die Hände nicht nur fühlen, sondern auch hören, riechen, schmecken, sehen, ahm tasten. Also dass es wirklich einfach von der Art der Sinne wirklich alles abdeckt. Und nicht nur den Tastsinn jetzt. Und die Sensibilität ist so das, das ist so das, was mir als erstes einfällt.“ (IP3, 1, 44-48)

[“And then, for me it’s always been like, that the hands cannot only feel, but hear, smell, taste, see, eh, touch. It really covers all the senses. And not only the sense of touch. And sensibility it’s like, what comes to my mind first.”]

While IP1, 2, and 3 describe their hands primarily in a professional context, interviewee takes a more general approach. For him, hands are responsible for the first sensation in everyday life. He likes to touch „irrsinnig gern“ [“unbelievably so“], always touches everyone and everything, be it people or food. Everything new is touched. He remembers his childhood, were his mother told him „Man schaut mit den Augen!“ (IP5, S1, Z30-43) [“Look with your eyes!“]

IP6 describes his hands special function with the word „Spürfinger“, “feeling fingers”, as mentioned above.

6.1.3 Summary

It can be said that the IP see hands as a tool for establishing contact with patients and collecting information using the sense of touch. Nevertheless, it is only a single sense. There are other senses of equal importance and used for collecting information about a patient during therapy. The patient is observed through all these senses. In a later part of the conversation interviewee 3 calls this „*Gesamtwahrnehmung*“ (IP3, 8, 48), “overall perception”.

6.1.4 The importance of the hands – their significance:

Right at the start of the interviews and later in conversation the IP showed the importance of their hands directly or indirectly.

It can be recognized directly from their wording. Two persons (4,6) called their hands „*Schatz*“, „treasure“, two more see them as „*ein Geschenk*“, “a present”, IP4 adds „*das Um und Auf*“, “the bread and butter” to treasure. In general language “treasure” means an accumulation of valuables – thus the hands have a great value.

IP7 says as a very first sentence „*Meine Hände sind mir sehr wichtig*“. (IP7, 1, 11) [“My hands are very important to me.”] „*Die Hände sind wirklich der allerwichtigste Teil*“ says IP3. (IP3, S1, 24-25) [“The hands are really the most important part.”]

Indirectly, the importance of the hands can be extracted from comments and reports. Two osteopaths have contracted an insurance for their hands. IP2 contracted it many years ago, when he considered it important. Since then he change, because he doesn't consider his hands his only tool anymore. Other senses take over parts of the hands' job. IP3 has a very high insurance for his hands. He contracted the insurance only when working as an osteopath, when it became evident to him, just how important each finger is. Later in conversation he explained, why fingers have an extra meaning to him. His father lost more than one finger when a dud exploded in his hand and his paternal grandmother was born with only one thumb. Says IP3:

„Und ich denk mir und ich setz jetzt diese Reihe irgendwie fort, indem meine Hände mein Kapital, mein Wissen, meine größte Sensibilität, mein größtes Werkzeug sind. Ahm, das, das find ich irgendwie schon sehr faszinierend, dass das genau da in diese Gegenrichtung geht.“ (IP3, 14, 32-45)

[“And I think that I somehow continue this tradition, because my hands are my assets, my knowledge, my biggest sensitivity, my most important tool. Eh, I consider this fascinating that runs contradictory here.”]

He describes his hands using four words: “Assets, knowledge, sensitivity and tool“. The use of the word “asset” shows the great value of the hands for their owner. Synonyms for this term are “money” and “fortune”, which stand for “asset” in a direct and indirect sense. The term “knowledge” refers to the education and training of the hands. Sensitivity stand for the “fifth sense”, the feeling respectively the sense of touch – it stands for the job of the hands. “Tool” is THE noun for hands. The superlative “most important” stresses the significance in connection with sensitivity and tool. The personal value of the hands of IP3 lies in the history and dynamics of his family. His grandmother and father did not have all their fingers, but he has got them and has the chance to train them especially and use them in his job. He wants to keep his hands sensitive tools by using them diligently.

IP3 has strong ties with his hands and to the hands of other people. He was influenced by his father who as a carpenter worked manually. IP3 always wanted to work with him and admired his father’s big hands.

„Ich weiß genau, wie seine Hände, die könnt ich auch, die könnt ich wahrscheinlich aus zig anderen Händen herausfinden. Ich schau auch Leuten auf die Hände, sagen wir mal so. Mach ich, schau ich mir auch gerne an. Eigentlich ja. Ja, also, ich glaub, ich kann mich mehr an die Hände erinnern als an Frisuren oder so irgendwas.“

(IP5, 3, 27-41)

[“I know exactly, how his hands, I would probably be able to recognize them among many other hands. I look at people’s hands, if you say so. I do, I like to look at them. I do. Yes, I think I’d rather be able to recognize hands than hair-dos or anything like it.“

]

It can be said that each interviewee considers hands important. But the change in significance differs. Two osteopaths (1, 2) state that the significance declined with time – because, as mentioned before, other senses became more important. Two other osteopaths (3,7) see it the other way round. IP3 says that only as an osteopath he became aware how important every finger is. Similar to IP7, who says:

„Ich denk, dass die Hände einfach die, ahm, den Stellenwert schon geändert haben, dadurch, einfach durch einen Beruf, wo man ständig die Menschen angreift, ist klar,

dass die, der Stellenwert einer Hand sich verändert. Also die Wichtigkeit ist sicher größer geworden.“ (IP7,S1, Z40-46)

[“I think that the hands, eh, their significance change, simply due to a job, where you always touch people, logically, that the significance of a hand changed. The importance surely increased.”]

6.1.5 Summary

These reports reveal the significance of the hands for every single osteopath. Additionally to the professional appreciation, which can be expected from a profession like an osteopath, the familial, personal and individual aspect becomes evident, where hands have a very high significance. Since the familial system was mentioned several times during the interviews. It will be summarized in chapter 6.4.9.1. Furthermore a certain concern and care for the hands can be observed – the hands are a tool to be looked after. However interesting, that the significance of the hands changes differently with various osteopaths. While for some the importance of the hands increases due to their profession, it declines for others, because other senses seem to be trained as well during OT and thus become more important than the hands.

6.2 THE ROLE OF THE HANDS PRIOR TO THE OSTEOPATHIC TRAINING

The IPs were asked: Which role did your hands and feeling with the hands prior to the osteopathic training.

Two main focuses are to be elaborated here:

- Feeling experiences and other stories surrounding hands, starting in childhood to adulthood.
- Special training of the hands prior to the osteopathic education.

6.2.1 Sensuous feeling experiences and other incidents

This chapter is dedicated to early history, incidents and experiences surrounding hands. The author makes the following case: Someone who chooses a profession where his hands are specially trained in feeling, is prone to having had specific prior feeling experiences. She thinks about colleagues who told her during the preparatory phase of her master thesis, that e.g. digging in the earth was a very special and pleasant experience. Others said that stroking a cat was a special touching and feeling experience.

This chapter focuses on the term “sensory integration” – meaning the interaction of different sensory qualities and systems. It is the condition for perceptual development. The according basic knowledge is explained in the chapter 4.4. The basic idea of sensory integration is a good sensory development during the early years of infancy. A well developed perception is the foundation for further skills, such as reading, writing or cycling, to state a few examples. *„Die sensomotorische Integration, die sich beim Bewegen, Reden und Spielen vollzieht, ist die Grundlage für die komplexere sensorische Integration, die nötig ist für Lesen, Schreiben und gutes Verhalten.“* (Ayres, 2002, 11) [“The sensorymotor integration, carries out while moving, speaking and playing, is the foundation for the more complex sensory integration required for reading, writing and good behaviour.”] The author thinks, this is also a good foundation for acquiring “dexterity” in osteopathy. During the interviews she asked about feeling experiences regarding the hands. Whereby could the sense of touch develop in childhood, what stimulated it? Which sensuously pleasurable materials do the interviewees remember?

What do the IP talk about?

6.2.1.1 During childhood:

IPs 1, 2, 3, 4, 5 and six state, that hands had a special significance during childhood. They liked working with their hands, hands were a tool already and they had a certain skill for handicraft and manual labour. IP7 did not consider his hands so important during childhood and schooldays and was not yet conscious of them. However, he had wanted to work with his hands later on – a manual work where change can be observed. As an example he cites: digging the garden or mowing the lawn. “Doing something” was what he liked best. IP2 grew up on a farm and spoke about his environmental conditioning through physical labour with the hands. He helped on the farm and handled heavy tools.

IP3 talks about a funny experience:

„Ahm, ich hab ein ganz eine, eine witzige Erfahrung. Und zwar hat meine Großmutter eine eigene Box in der Küche gehabt, wo sie Stärkemehl aufbewahrt hat. Und Stärke, und wenn mit dem irgendetwas gemacht worden ist, da hätte ich meine Hände stundenlang drinnen vergraben können von dem Gefühl, das dieses Stärkemehl an den Fingern hinterlassen hat. Also da, wenn wer gesagt hätte, ich muss da jetzt eine Stunde drinnen baden, dann hätt ich das auch gemacht. Also das ist so von, das ist mir so als Kind einfach sehr in Erinnerung. (IP3, 2, 6-12)

[“I had a quite funny experience. My grandmother had a separate box in the kitchen where she stored cornflower. And when something was made with cornflower, I could have dug my hands for hours in it, because of the feeling it left on my hands. If someone had told me, I would have to bathe in it for an hour, I would have done it. This is something I remember well from my childhood.”]

“Bathing“ the hands in cornflower, a soft, powdery material – as a contrast to heavy tools IP2 talks about – strongly resembles therapy material “sphere bath” in Sensory Integration. Similar to the body bathing in soft orbs, IP3 liked to sink her hands in cornflower.

This “pleasurable acting out of the sense of touch” becomes manifest in IP5, who always spent much time outside, in the earth. Additionally to earth the element wood was important to him. He wanted to become a carpenter like his father and stay close to wood, wanted to touch wood and do something with it.

IP6 says, that he had many experiences *„Hunderttausende vielleicht“* (IP6, 3, 7), [“onehundredthousands, maybe”] and considers everything very exciting, including grass. Here he talks about his experiences as a child:

„Also, sehr, sehr oft irritierend und deshalb auch nachdrücklich eindrücklich, sind Berührungen, die, für mich gewesen, wo ich etwas berührt habe, wo ich gedacht habe,

es wird so sein, aber es war dann anders. Also zum Beispiel: Als Kind einen Bart oder Klaviertasten, die nicht kalt und nicht warm sind, solche Sachen. Also so, wo eigentlich das sensorische dann, also der Eindruck, der Fingereindruck eine neue Synapse sich ausbilden lässt oder eine neue Erfahrung.“ (IP6, 2, 11-16)

[“For me often very irritating and therefore insistent meaningful were experiences, when I touched something and thought it would feel a certain way, but was different then. For example: As a child a beard or piano keys that were neither cold nor warm, things like that. When the sensory impression, the impression of the finger creates a new synapse or a new impression.”]

He talks about surprising experiences „[...] *aber es war dann anders*“ [“but then it was different”]. IP6 formulates a basic thought of Sensory Integration by mentioning “finger impression”, “creation of synapses” and “new experience”. A synapse is the gap between nerve cells or between nerve cells and other cells (such as sensory cells). The more stimuli we receive from our environment through our senses, the more synapses can be bridged. Thus our senses can be interwoven with each other (Goldstein, 2008, 29). The word “integration” means that different fields of perception are connected with each other, in order to create a “whole”. Compare chapter 4.4.

Subsequently, an account of "other stories" by IPs is given.

IP4 tells that he considered his father „*schon sehr prägend*“ [“very influencing”] regarding the hands. His father was a doctor following the school of Mayr and massaged bellies with his hands and felt a lot of things. The hands were his basic tool, according to IP4, “healing hands”, he still keeps in mind.

For two IPs (3,5) the hands have a special significance as an “organ with which we touch and grasp”. In the previous chapter 6.1.2. “First thoughts concerning the hands – the hands as a sense organ” it was already mentioned, that IP5 always like “very much” to touch everything – everything including things and people. II 3 refers to people only. He shares a nice memory:

[...]. „Die zweite Erinnerung, die aus der Zeit vor meinem Beruf ist, dass ich immer schon sehr viel mit, also immer die Leut hab angreifen müssen, auch als Kind schon. Also es hat mir nicht genügt sie anzuschauen oder anzusprechen, sondern ich hab immer hingreifen müssen. Vorzugsweise, ja vorzugsweise am Anfang die Ohren, witzigerweise als ganz Kleine. Und später dann, war es mir egal, dann hab ich auch zu den Schultern oder sonst irgendwo hingegriffen. Na, schon Leute aus dem Familien und Freundeskreis. Oder Mitschüler dann im Gymnasium oder so. Also Leute, die mir wichtig waren, sind auch angegriffen worden.“ (IP3, 2, 17-34)

[“The second memory coming from the time prior to my profession that I always liked to touch people, already as a child. I wasn’t satisfied with looking at them or talking to them, I always had to touch. Above all the ears at the start, funnily as a small child. And later I didn’t care anymore, I touched the shoulders or anything else. Well, people from my family or circle of friends. Or fellow students in high school. People who were dear to me were touched.“]

Already as a child the hands were the most important contact with people. He sees it as is trademark that seized with time.

6.2.1.2 During adulthood:

Here osteopaths talk about joyous experiences of the hands in a professional context. Six of the seven interviewees are physiotherapists as a basic profession, one is a medical doctor.

The physiotherapists talk very positively about “touching” and “the massage”. IP1 does this the following way: *„Sei es Massage, sei es Bewegungstherapie, also einfach dieses Berühren von Menschen ist immer sehr was, für mich was sehr was Sinnliches und was Lustvolles und Freudvolles im Arbeitskontext gewesen.“* (IP1, 1, 37-39). [“Be it massage, be it ergotherapy, touching people was always something sensuous and joyful and elating form in a professional context.”] IP4 describes *„das Massieren und das Erfühlen“* [“massaging and feeling“] as something beautiful during physiotherapeutic training and has great memories: *„Das, ich hab einfach gespürt, dass die ah Menschen sehr entspannt reagieren auf meine Hände. Schon als Physiotherapeut, ja. Indem ich, weiß ich, nur die Hand auf den Bauch gelegt hab, ja.“* (IP4, 3, 19-21).[“I simply felt that people react in a very relaxed manner to my hands. Already as a physiotherapist. By simply putting my hands on the belly.”] IP5 says, he simply “liked” touching people. IP7 did a massage course prior to the physiotherapeutic training and stresses that he became very conscious of his hands.

IP6 is a physician and studied arts prior to that. *„Ich hab immer schon viel mit den Händen gemacht, vor der Osteopathie auch.“* (IP6, 1, 33-34). [“I have always done a lot with my hands, already prior to osteopathy.“] During the interview he talks about having worked with hard material, in sculpturing, and on the other hand mainly with soft materials, such as paper, wax, and wool. Using china paper as an example, he describes who his senses playfully collected impressions:

„Oder wenn man zum Beispiel Chinapapier, ein bestimmtes Papier, nimmt, und das Chinapapier ist ja ganz etwas, hat eine raue und eine weichere Seite und ist an und für

sich sehr reißfest. Man kann unendlich daran zerren, weil es eine so dichte Struktur hat. Und wenn man einen kleinen Wasserpinselstrich macht, kann man das genau an der Stelle reißen, dann wird das total weich, dann zerfranst das so, dann wird das an der Seite ganz weich.“ (IP6, 2, 20-25)

[“If you take china paper, a specific paper, and china paper has a rough said and a softer one and is quite tear-resistant. You can forever tear it around, because it has such a dense structure. And if you draw a tiny water-colour line, you can tear it apart at this very strip, it becomes very soft, it frays and gets soft on the sides.”]

Preferably he always worked without intermediate aid. But the only thing he could ever really accept was painting, where he regards the brush as an elongation of the hands and the brush has the advantage of being subtle and not hard at the tip.

IP6, who is a physician, as well as IP7 who prior to the physiotherapeutic training did the first curriculum in medicine, talk about dissection, which is responsible for different sensory impressions. IP6 touched a corpse for the first time during his internship. For him it was a „traumatischer Input“ [“traumatic input”]. The feeling of piercing something was as new as the feeling of cutting something that yields while performing the cut.

IP7 answers the question about what was so special about dissection for him like this: „Dass ich eigentlich lieber mit der Hand wo hineingegriffen hab oder ein Band gelöst hab als mit dem Skalpell. Weil das interessant ist, das zu erspüren“. (IP7, 3, 28-33) [“I preferred touching or loosening a ribbon with my hands than with the scalpel. Because it is interesting to feel something.”] He compares feeling a structure while dissecting with feeling a structure during osteopathic treatment and concludes it to be a similar feeling. He points out he was very careful with his fingers in order not to cut himself.

IP2 also mentioned the vulnerability of the hands briefly. He describes working in hotel and restaurant industry and carried a lot with his hand. By letting slip a hot pan he burned his forearm and the scar is still visible. He talks about failure of his hands.

IP4 connects a pleasant experience with hands – no sensual experience but an experience that makes him proud and stresses the „cosmetic aspect“ of the hands:

„Also das einzige was mir jetzt so ganz spontan einfällt ist, ich war im Gymnasium. Da hab ich eine Freundin gehabt, die ist dann auf die Kunstakademie gegangen in Wien. Die hat gesagt, du hast so schöne Hände, bitte geh mit mir runter, ich brauch was für eine Aufnahme, ein Foto und dann hab ich so ein komisches Dings halten müssen, ewig lang. Und da sind meine Hände fotografiert worden eben. Und dann hab ich mir gedacht: na schau!“ (IP5, 2, 5-10)

[“The only thing that comes to my mind spontaneously is from my time in high school. I had friend who later went to art school in Vienna. And she said, you have such beautiful hands, please come with me, I need something for a picture, a photograph and then I had to hold some strange device for a very long time. And my hands were photographed. And thought: look at you!”]

As a last topic sports shall be mentioned. Two IPs (3, 7) talk about climbing.

IP7 mentions briefly that he needs his hands a lot in doing so. IP3 explains his thoughts further and in more details. He considers various aspects as important. On one hand he stresses the structure, the material that can be felt, perception per se and on the other hand his trust in his perception.

„Und das zweite, dass ich ah, dann auch kurze Zeit bevor ich mit der Osteopathie angefangen hab, noch zum Klettern begonnen hab. Wo es einfach auch sehr viel um Struktur geht, oder um etwas erföhlen und sich auf etwas verlassen können. Oder spür ich das so, dass ist zwar natürlich sehr konträr, weil es ja nicht, nicht unbedingt was mit, was sehr Sensibles ist. Aber es ist für mich trotzdem vom Hingreifen und Spüren noch, war das sicher auch einfach ein Mosaikstein auf dem Weg.“ (IP3, 8, 1-7)

[“And secondly, shortly before I started osteopathy, I began with climbing. It deals a lot with structure and with feeling something and being able to trust something. Or I feel it that way, even though it being contrarian, because it is not something very sensitive. But it sure was a step on the way, regarding grasping and feeling.”]

Naturally, trusting one’s own perception is important while climbing, because it accounts for a person’s security. “Trust in oneself” is mentioned later in the interview, when talking about craniosacral skill – see chapter 6.4.11.

IP3 refers to perception:

„Also nicht nur mechanisch, sondern ich nehme wahr, dass das jetzt, dass der Griff jetzt zu breit ist. Was kann ich daraus machen. Ich nehme wahr, dass das zu klein ist, oder dass mir das, das ist sehr rau. Oder ich nehme wahr, dass es überhaupt nicht rau ist, und das wird eher schwierig. Also einfach diese Dinge. Und das ist ja dann etwas, was nicht bewusst abläuft, sondern das verinnerlichst du ja richtig.“ (IP3, 8, 16-20)

[“Not only mechanically, I realise that the grip is too wide. What can I make of it. I realise it is too small or I think this is very rough. Or I realise it is not rough at all and it will get difficult. Things like hat. And there is something you are not doing consciously, something you internalise.”]

IP3 mentions something that stands for this whole master thesis: „*Und ich denk mir, dass das auch so, irgendwo hinzugreifen und einfach viele Eindrücke zu bekommen, da schon einmal geschult wird. Weil du so viele Entscheidungen in sehr kurzer Zeit dann auch treffen musst.*“ (IP3, 8, 24-26) [“And I think, touching and gaining many impressions is something that has to be trained. Because you have to take decisions in a very short time.”] His statements reminds of the one by IP6, who talks about the finger impression that creates a new synapse. Both stress the importance of gaining many impressions. IP3 additionally mentions the cognitive process as a reaction to perception; the decision for the following action. This action is a further step in the “perceptual process”, as described in the chapter 4.3.1.

It refers to our constant collection of impressions with our senses – in this case mainly with the sense of touch. All these impressions additionally train our senses. It is remarkable that IPs talk about it early into the conversation and express their thoughts. IP6 talks about thousands and hundreds of thousands of impressions, many of them unconscious, other very conscious, that give him the chance to talk about them. He imagines the hands being a kind of memory, a memory of how things feel. And thus make recognition possible. There are things that stick out and make other group around them.

IP6 refers to the step “recognition” in “perceptual process”: Compare chapter 6.4.7.5.

6.2.1.3 Summary:

The author would like to stress that this chapter mainly deals with “stories“. She asked the osteopaths to come up with memories of nice experiences in a kind of “brain-storming”. This stories show a very personal aspect of their relationships with their hands.

The following can be said as a summary:

1. Sensory experiences are accounted. The experiences with various materials during childhood and adulthood are narrated. Hard, heavy tools are listed, soft, light cornflower, muddy earth, grass, “changeable, workable” wood and piano keys. “A hundredthousand impressions”, of which a few stayed in mind. The special sensory experiences of IP6 from his study of arts are based on one hand on hard material such as stone, on the other hand on soft ones, such as paper, wax and wool. The two climbers among the osteopaths talk about the handling if materials with a different condition of surface.

One hand materials from our environment lead people to pleasant feeling experiences, on the other hand the human body does it. IP3 talks about his “trademark” of touching many

people's ears. Other IPs describe touching as a pleasant sensory experience in a professional context, such as massaging.

An unpleasant but nevertheless remarkable experience is mentioned by IP6, who describes touching a corpse as "traumatic input" and considers the subsequent dissection as "new experience."

2. Additionally to the sensory experiences manual activities are mentioned, where various perceptual systems interact, meaning the sensory, the dexterous and the cognitive systems (cf. Chapter 4.4). Handicraft and working in the garden and on the farm are a few examples. Sensory experiences and manual work are this chapter's main subjects.

3. Additionally a personal influence becomes manifest with interviewee 5 through the "healing hands" of his father. The narration of IP5 about the cosmetic aspect of hands closes this chapter.

In the next chapter the author goes into special and professional training, which prepared the hands for osteopathy.

Naturally there are a few statements, which belong to feeling experiences as well as to special training for the sense of touch. The statements of IP3 about climbing were cited as an example of "feeling experience", but in a certain way also belongs to "training" – and will be mentioned briefly in this chapter. There are several interferences, even though the author tries to assign a certain subject to one main chapter.

6.3 PRE-OSTEOPATHIC TRAINING OF THE HANDS

Crucial for the question about “pre-osteopathic“ training of the hands was an experience the author made. It shall be mentioned briefly here.

After her physiotherapeutic training and prior to the osteopathic training the author did the first part of a course in manual therapy, called “Maitland-concept“. It is a manual-therapeutic treatment concept against malfunction in the joint-, muscle- and nerve-system. It focuses on a very detailed subjective and clinical diagnostic finding and a similarly detailed plan of treatment which uses a repeated diagnosis. Above all the hands and the sense of touch were training through this clinical medical investigation. The author remembers that the sense of touch was trained by looking for hot and cold parts above and on the skin. Furthermore, several layers of the body were palpated – above all on the back, in order to evaluate the spine. Assessment criteria were e.g. the mobility of the skin, the swelling of the connective tissue and the tenseness of the musculature. The flexibility of the joints was tested using a suspension test, whereby the pressure of the executing fingers was applied in different levels. Such precise work as continued during treatment. For the author it was the first time she had to assess different layers with her sense of touch. It was a big challenge but also a great pleasure, because this kind of work on the patient with her fingers came very close to her picture of “treatment”.

The sentence by Sutherland „*Seine Finger sollten wie Detektive sein, gewandt in der Kunst, Verstecktes aufzuspüren.*“ (Sutherland, 2004, II, 17) [“His fingers should be like detectives, skilled in the art of discovering the hidden.“] seemed very apt for the author during her time with “Maitland”. She considers her “finger training” through the Maitland-concept as preparatory for later osteopathic techniques.

Continuing with the interviewees. What were their answers to the question:

“How and by what were your hands trained prior to osteopathy – in professional further education or in areas outside the job? What was preparatory for osteopathic work?”

Even though the interviews focus especially on acquiring cranial techniques, they generally refer to osteopathic work.

The answers can be assigned to two scopes of topic:

“Professional training” and “training outside the job”

6.3.1 Professional training respectively points of view

Six of the seven IPs are physiotherapists. Therefore there are many statements regarding aspects and different techniques from physiotherapy. As subareas massage, lymphatic drainage, manual therapy, working on a neurologic ward with PNF [proprioceptive neuromuscular facilitation] and Bobath and treatment in water are mentioned. The IPs also talk about general points of view regarding “touching” and “feeling”.

A “previous cranial training” is mentioned by IP7 as another subject. How it did or not help him will be explained later on in this chapter.

IP6, the only non-physiotherapist, does not mention any job-related education – but another very interesting one – as described in chapter 6.3.2.3.

Later on individual subareas and their reference to the training of the hands will be highlighted.

6.3.1.1 Massage

IP1,4, 5 and 7 mention massage in the framework of physiotherapy. Even though IP7 was the only one to do a massaging course previously, he only mentions it briefly by describing it as a positive contribution to physiotherapeutic education. IP5 mentions that he was able to massage well before, but could not say he was well-prepared for osteopathic work. He indicates, that “feeling” was quite important during physiotherapeutic training: „[...] *Das, ich hab einfach gespürt, dass die ah Menschen sehr entspannt reagieren auf meine Hände. Schon als Physiotherapeut, ja. Indem ich, weiß ich, nur die Hand auf den Bauch gelegt hab, ja.*“ (IP4, 3, 19-25) [“I simply felt that people react in a relaxed way to my hands. Already as a physiotherapist. By simply putting my hands on the belly.”]

IP1 sees massaging as an example for pleasant touching:

„[...] und auch als Physiotherapeutin war mir das Angreifen einfach etwas, was ich immer sehr gern gemacht habe. Egal jetzt in welchem Kontext. Sei es Massage, sei es Bewegungstherapie, also einfach dieses Berühren von Menschen ist immer sehr was, für mich was sehr was Sinnliches und was Lustvolles und Freudvolles im Arbeitskontext gewesen.“ (IP1, 1, 31-39)

[“and even as a physiotherapist touching was something I always liked to do. No matter in what context. Be it in massaging, in ergotherapy, simply touching people has always been something very sensuous and sensual and pleasant in a working context.”]

He doesn't say explicitly, that massaging as a „technique“ was preparatory, but it is one of many ways of touching people and patients. The joy in touching becomes clearly evident, it can be seen as a basic attitude and motivation for a later training of the hands.

Contrary, IP3 states in the following words, way massaging was a “preosteopathic training”:

„Ich muss jetzt einmal sagen, obwohl das Physiotherapeuten nicht so gerne hören, aber das war so, die Massage hat mir, die hat mit, wir haben eine irrsinnig gute Lehrerin gehabt und weil wir da, die hat dann auch gesagt, man, man kriegt da ein gutes Gespür für die Leute einfach, wenn man so über den Rücken drüberstreicht. Ja. Und das hab ich wirklich, hab ich mir gedacht, das taugt mir. Und ich mach es auch heute noch gern, sagen wir mal so, dass man, wenn man, ich tu jetzt nicht massieren in dem Sinn so was, aber manchmal denk ich mir, mh also einen Zugang, dass einmal, was weiß ich, so über den Rücken streichen oder so, so Einzelformen, was weiß ich, dass das ein guter, ein gutes, das ist so was erdiges, so was, jemanden angreifen und mit solchen Techniken, das hat mir getaugt. Und das mach ich auch jetzt noch gerne.“
(IP5, 4, 12-26)

[“I have to say, even though physiotherapists do not like to hear it, but it was like, massaging, we had a very good teacher and she said, you get a good intuition for people, by simply stroking their backs. And I though, I like hat. And I still like doing it, even though I don't give massages right now, but sometimes I think, this kind of approach, simply touching the back or individual actions, I don't know, that is something good and down-to-earth, touching someone with techniques like that, I liked it. And I still like doing that.”]

He talks about a concrete massaging technique „stroking the back“ which are a puzzle piece for developing an “intuition”. *„man kriegt da ein gutes Gespür“* [“one gains a good intuition“] stands for the development of the sense of touch. He still applies it with joy.

Summarisingly it can be said, that massaging is an example for touching in a therapeutic context. Pleasant touching is seen as a basic condition for perceptual development. On the other hand IP4 sees certain massage techniques as a training for his fingers.

6.3.1.2 Lymphatic drainage

IP1 always liked to work with techniques representing a “flow“. He refers to a “flow of movement” or a “flow of time”. For him, lymphatic drainage has many aspects of flowing. In this context “flow” also means that movement does not stop, one movement leads to the

other. IP1 likes techniques which lead him and the patients into a flow of movement. For him it is the simplest way of come into contact with his vis-à-vis in a therapeutic context. He cites a second reason, why lymphatic drainage was preparatory:

„Also, so dieses ganz feine und ganz präzise Arbeiten in einem physiotherapeutischen Kontext das war für mich das erste Mal die Lymphdrainage, weil man da mit ganz minimalen Druckunterschieden auch arbeiten muss. Das kannte ich in der Form nicht.“ (IP1, 3, 27-30)

[“This delicate and precise work in a physiotherapeutic context, that was lymphatic drainage for me, because one has to work with minimal difference in pressure. I didn’t know that until then.”]

There are two reasons lymphatic drainage is considered important for later times. On the one hand it is the “aspect of flowing” as mentioned before, which can be found in osteopathy too. Think of e.g. TGO, where one sequence of movement leads to the other. But also the demand to work with the rhythm of the patient reminds of “flow”. The second reason is the “delicate and precise work” and “working with minimal differences in pressure”. Lymphatic drainage is a way of *„Berührungssinn herunterzuregeln“* (Sutherland, 2004, II, 172) [“toning down the sense of touch“]. Sutherland talks about that in order to explain the handling of the cranial mechanism which he compares with a ladies’ watch.

„Bei diesem Bemühen werden Sie dazu angehalten, Ihren Berührungssinn herunterzuregeln. Sie sind daran gewöhnt, mit der großflächigeren Anatomie der Wirbelsäule umzugehen. Beim kranialen Mechanismus hingegen könnte man sagen, dass Sie es vergleichsweise mit dem Mechanismus einer Damenuhr zu tun haben. [...]“ (Sutherland, 2004, II, 172)

[“In trying to do that you are required to tone down your sense of touch. You are used to handling the large-area anatomy of the spine. With the cranial mechanism however, one could say you are dealing with the mechanism of a ladies’ wrist-watch.”]

Additionally to “delicate work“ lymphatic drainage requires “precise” work. Osteopathy means precise work. Precise in maneuver techniques, in diagnosis and in treatment.

Lymphatic drainage is only mentioned by interviewee 1 and his comments indicate that is was an important step to him. What did exactly train perception? Carrying out delicate, tiny, precise movements with the hands requires an even more delicate perception from surface sensitivity and proprioception as necessary for big, unobtrusive movements.

6.3.1.3 Working on a neurological ward

This subject is mentioned by two of the seven osteopaths – IP2 and 5, who both worked on a neurological ward.

IP2 did that immediately after the physiotherapeutic training and mentions working with hands, „*immer angreifen*“ [“always touching“] and the „*starken Körperkontakt*“ [“strong physical contact”] as an advantage. He sees the „*gesamtheitlichen Ansatz der Neurologie und des neurologischen Behandlungskonzeptes*“ (IP2, 2, 28-32) [“holistic approach of neurology and the neurological treatment concept”] as his interest in those times which lead to work with the hands. After the author stating that already prior to osteopathic work, he always touched, did and lead everything with his hands, he replied „*Nur!!*“ [“Only that!!”]. After his first general statements he indicated a point important to him, referring to the PNF [Proprioceptive neuromuscular facilitation]. This technique is a physiotherapeutic „*Ganzbehandlung auf neurophysiologischer Grundlage unter Ausnutzung der lokalen und temporären Summation von extero- und propriozeptiven Reizen. Verlorengegangene oder noch nicht erlernte Bewegungen sollen angebahnt oder zum Ziel der Normotonisierung koordiniert werden.*“ (Voss, Ionta and Myers, 1988, back cover) [“Holistic treatment on a neurophysiologic basis by using the local and temporary summation of extero- and proprioceptive stimuli. Movements lost or not yet learned shall be initiated or coordinated with the aim for normotension.”] The basis of this technique is the creation of stimuli in order to achieve the desired result. Facilitation is to be understood as “encouragement“. IP2 says:

„Es war insofern sicher vorbereitend, weil es mir gängig war, präzise Kontakte zu setzen durch das PNF. Und präzise in Kontakt mit den Patienten, vorwiegend neurologischen Patienten, zu sein. Plus auch irgendwie so die Grundidee jetzt von PNF, irgendwo einen Reiz zu setzen und eine Veränderung im Gehirn zu kriegen. Hat sicher schon was Verwandtes, sag ich jetzt einmal, zur Osteopathie. Genau. Dass es kein Problem ist zu greifen, gezielt zu greifen oder genau die Hände einzusetzen.“
(IP2, 3, 49-51 und 4,1-11)

[“It was insofar preparatory, because I was used to applying precise contact through the PNF. And staying in precise contact with patients, predominately neurologic patients. Plus, the basic idea of PNF is to set a stimulus somewhere and achieve a reaction in the brain. It is kind of related to osteopathy, I would say. That it is no problem to maneuver directedly and use one’s hand exactly.”]

His choice of words underlines his statement. Two times he uses the word “precise” and then “directed” and “exact”, referring to the hands and maneuvering. For IP2, PNF means the same as lymphatic drainage to interviewee 1. Both call “precise” work preparatory.

Additionally, osteopath 2 compared the basic idea of PNF to osteopathy. Both set a stimulus or an impulse, in order to achieve changes in the brain or in other tissues. PNF is also preparatory concerning the basic idea.

IP5, the second one with a neurologic background talks like this about „facilitation“ and „touching“: *„[...]ich hab viel mit Behinderten gearbeitet, dieses Fazilitieren, eben von Bobath her, dass ich jetzt ohne Worte, jemand nur durchs Angreifen, durch, durch meinen Druck, was bewegen kann.“ (IP5, 4, 35-39) [“I have worked a lot with handicapped people, using facilitation according to Bobath, that I can change something without words, only by maneuvering and applying pressure.”].*

Both IP (2, 5) consider “touching“ an important aspect and while interviewee 2 talks about the “precision” of PNF, IP5 describes touching with the following words:

„Und auch grad eben da in diesem nonverbalen Bereich, die Hände was ganz was Wichtiges ist, wie die Berührung ist. (IP5, 4, 43-44)

Ich muss sagen, da wie ich da [...] gearbeitet hab, da hab ich, da ist mir erst bewusst geworden was, was in den Händen liegt und wie sehr wir eigentlich in unserer Gesellschaft auf das Wort oder auf Sehen aus sind. Aber eben dieses Berühren oder berührt werden, also da steckt viel, viel mehr dahinter. Da kann ich noch viel, viel mehr bewegen als wie durch verbale, oder ... ja Befehle oder so etwas. (IP5, 4, 48-51 und 5,1-2)

Und da [in einem Neuropraktikum in der Ausbildung] hab ich eben auch das gesehen, wie, wie die [eine Kollegin]einfach ohne, ohne dass sie jetzt ein verbales Kommando gegeben hat, einfach nur durch das Angreifen oder wie, wie sie jemanden drückt oder nicht oder was sie halt da gemacht hat, was, was bewirkt hat. Da hab ich mir gedacht, super, ja.“ (IP5, 5, 19-22)

[“And especially in this nonverbal area, hands are very important, as is touching.“

“I have to say, the way [...] I worked there, I only then became aware of what lies in our hands and how much we rely on words and seeing in society. But there is so much more to touching and being touched. I can achieve so much more through that than through verbal, well, orders or something like that.”

“And then [in a neurological internship during training] I saw how a colleague achieved something, without giving verbal orders, simply by touching or hugging someone or not or whatever she did. And I thought, that’s great,”]

This refers to the nonverbal area, where hands play a pivotal role. He describes the advantages of touching and maneuvering in comparison to seeing and language. A more direct and closer contact is possible through touching. In therapy it is often easier and better to lead patients nonverbally.

As a summary it can be said, that it can be considered preparatory for osteopathic work if a person is used to touching and maneuvering. The author would like to indicate that in the large scope of physiotherapy where language and not manoeuvring plays a major role: exercises are explained to one person or a group or a relaxation group.

Techniques in neurology which require precise manoeuvring and exact positioning of the hand and techniques with a lot of physical contact and nonverbal instruction are seen as preparatory. It is facilitating when basics about the mechanisms of effects are resemble each other.

6.3.1.4 *Therapie Manual therapy – Structural therapy*

Statements by osteopath 3 and 7 are added

IP7 mentions it briefly by positively assessing the Structural Training in physiotherapy and considering it an approach to osteopathy. He says: „[...] *Aber die war sehr gut. [...] nein, aber das ist ernsthaft, Strukturelle war das, wo ich damals gefunden hab, das war gut und hat mir Spaß gemacht. Also wollt ich in so eine Richtung auch gehen.*“ (IP7, 4, 3-11) [„But it was very good [...] no, seriously. What I did then was Structural Therapy and it was good and I liked it. So I wanted to go in this direction.”] He doesn’t say directly that he considers Structural Therapy as preparatory, but it is an essential basis for him.

IP3 talks about his work prior to osteopathy and sees manual-therapeutic work in physiotherapy as a contrast to the later “feeling” in osteopathy.

„Da fällt mir jetzt eher ein, dass ich so das Gefühl hab, dass es, dass ich am Anfang ahm eher eine war, die sehr strukturell und sehr straight oder auch vielleicht mit sehr viel Kraft oder sehr viel ah, ja, die eher von der Seite gekommen ist. Ich war jetzt nicht die große Spürerin, das war ich überhaupt nicht, sondern bin eher von der pragmatischen Seite gekommen und hab auch lange im unfallchirurgischen Bereich gearbeitet, wo es einfach wirklich um Hingreifen, Mobilisieren, Ziehen, um sehr, sehr

direkte Dinge da gegangen ist. Kräftige Dinge eigentlich. Ja genau. Ahm, und hab dann ahm, hab auch immer, muss ich vielleicht dazusagen, parallel so das Gefühl gehabt, dass ich nicht, oder dass andere viel sensibler waren, was das Spüren anbelangt hat. Das ist mir damals irgendwie nicht das war nicht so meins, meine Schiene. Meins war hinzugreifen, zu sagen: das ist blockiert. Wie kann ich das mobilisieren. So hab ich's mobilisiert, jetzt geht es besser. Punkt. Ahm ... die Richtung der Osteopathie ist jetzt nicht von dem beeinflusst worden. Weil ich mir denk, ich bin wirklich, ich hab's eigentlich erst im Nachhinein realisiert, wie sehr das, wie sehr sich das dann verändert hat. (IP3, 3,18 -39)

Also mit irgendwie Bobath, das, mit dem hab ich nicht so ghabt. (IP3, 4, 19)

Na, sondern wirklich Manualtherapie, also so in die Richtung.“ (IP3, 4, 23)

[“I remember that I had the feeling, that at the beginning I was one to work structurally and very straight and with a lot of strength and who came very much from this side. I was a very feeling person, not at all, but I came from the pragmatic side and I worked in an orthopaedic surgery field for a long time, which dealt with manoeuvring, mobilising, pulling and very direct things. Forceful things. But additionally to that, I have to say, I had the feeling that others were much more sensitive, concerning feeling. That wasn't my thing. Mine was to maneuver and to say: that's blocked. How can I mobilise it. And I mobilised it and it got better. Full-stop. Osteopathy wasn't influenced by that. Because I think I realised only later, how much that changed.“

„Working according to Bobath wasn't my thing.“

“Really rather something with manual-therapy, that way.”]

IP3 also refers to maneuvering and uses the words “very structural, very straight, a lot of strength. Maneuvering, mobilising, pulling and very direct things.” The “active and forceful work” with the hands becomes evident. He mentions this kind of work as a counterpart to “feeling.”

Actually, there are very direct and active elements in osteopathic work, e.g. the active mobilisation of a structure and the chiropractic maneuvers. IP3 means cranial work when talking about “feeling” – where “the sense of touch is tones down”, according to Sutherland (2004). Asked by the author whether he considers this active work as preparatory he answers very clearly “No!!!” (IP3, 5, 13) – with three exclamation marks. But he immediately qualifies his statement by agreeing with the existence of similar structural techniques in osteopathy and says: „Das hat sich dort getroffen und ich bin aber eigentlich parallel dann

erst darauf gekommen.“ [“It intersected there and but I discovered it parallely.”] The clear “No!!!” referred to the cranial techniques and expresses his personal opinion, whereby others might see it as preparatory on a larger scale. The subject coming up in this quotation illustrates the interviewee’s personal doubts in his feeling skills and will be highlighted in chapter.6.4.11.1.

As a summary it can be said that structural work can be seen as basis for further osteopathic work, because structural Therapy can be found in osteopathic training. “Structural, cranial and visceral work” are the three main pillars of osteopathy. When IP3 expresses a clear “No”, he means that structural therapy was not preparatory for cranial therapy. And this leads back to the situation mentioned at the beginning of this chapter: The interviewees were asked what they consider instructive and preparatory for osteopathy – generally for osteopathy and not only for a subarea such as cranial therapy.

6.3.1.5 *Treatment in water*

IP1 gives a little insight to treatment in water. In chapter 6.3.1.2 his points of view regarding lymphatic drainage were outlined. Upon the author insisting on which kind of work could also have been important and preparatory, he gave the following answer:

„Ja, auch, aber mir war immer dieses Spiel mit dem Gewebe wichtig. Immer sehr lustvoll, damit zu arbeiten. (IP1, 4, 7-11)

Es waren eine Menge interessante Sachen, aber es war nix, das genau diesen Aspekt gehabt hat [Fließaspekt wie bei der Lymphdrainage] sonst. ... Am ehesten vielleicht noch Arbeit im Wasser. Da gab’s, da gab’s einige Konzepte, die sehr in Bewegung waren und nicht so fix und fertig waren und ich hab, ich hab im Wasser sehr viel einfach gespielt mit Mobilisationen und mit solchen Sachen. (IP1, 4, 18-22)

Ah, ich bin über viele Jahre mit einfach Einzelpatienten nach Oberlaa gegangen.“ (IP1, 4, 30)

[“I always liked playing with tissue. Very pleasant, working with it.”

“There were many interesting things, but nothing else had this aspect [flowing aspect as in lymphatic drainage] Maybe work in water. There were some concepts dealing with movement and not so stable and finished and I kind of played in water with mobilisation and else.”

“Throughout many years I went to Oberlaa with individual patients.”]

IP1 likes to use “sensuous“ words which describe his joy and motivation about working with his hands. Using “playing with tissue” and “sensuous” prove it. The word “play” takes the burden of work and stresses the readiness to experiment during work in water. He prefers concepts which allow that. What is preparatory for osteopathic work about it? On one hand it is the “flowing aspect” of movements in water – as mentioned in the chapter about lymphatic drainage. Because of the flotation in water the body becomes less heavy and movements become easier, “more flowing” and softer. On the other hand there is another aspect: According to Sutherland (2004) the contact with tissue is very important in osteopathy. It is called dialogue or communication with tissue. During the interviews this was brought up by the question “What is communication with tissue for you?” and the answers will be mentioned in chapter 6.4.15. Gaining information from tissue is a special ability of osteopathically working hands, to react to it with more or less active action and then wait for more information – it is a constant “back and forth”. Thus the word “play” describes it well.

6.3.1.6 Early cranial training

IP7 mentions the “early cranial training“ not while answering the question about the preosteopathic training of the hands, but when asked about his experiences during the first cranial lessons of osteopathy. He did well, in answer with the following explanation.

„Mir ist es sehr gut gegangen, weil ich vorher schon eine kleine Cranio-Ausbildung gemacht habe. Vor der Osteopathie. Die hieß, diese Ausbildung hieß ahm auch Craniosacraltherapie. Und haben gemacht Kinesiologen, die, im Rahmen der Kinesiologie-Ausbildung. (IP7, 4, 40-51)

Und daher hab ich gewusst, was in etwa, das war natürlich sehr unprofessionell im Vergleich dazu. [...] Jedenfalls ahm ... hab ich da schon gelernt, was es heißt, das zu spüren und das hat mich auch wahnsinnig interessiert.“ (IP7, 5, 3-9)

[“I did well, because I had done a short cranial training previously. Prior to osteopathy. This training was craniosacral-therapy. It was carried out by kinesiologists during a kinesiology training.“

“And because of that I knew, what it was all about, this was quite non-professional compared to now. [...] Anyway,...I already learned what it means to sense and I was really interested in it.”]

For him it was an advantage having felt craniosacral movements already before. Asked by the author whether it was easy for him feeling craniosacral movements in osteopathy he says: *„Nein. Weil ich irgendwie schon etwas sehr Deutliches im Kopf gehabt hab, wie es sein*

könnte. Das hat mich ein bisschen blockiert. ... Aber es ist einfach mit der Zeit, irgendwann ist es, ist das Spüren gekommen und dann, seitdem ist es da.“ (IP7, 7, 35-41) [“No, because I had a very clear idea of what I could be. That blocked me a little. But feeling came with time and since then it stayed.”] In order to explain it more specifically: On one hand it was an advantage having felt craniosacral movements already before, in order to know what was about to come. But it was a disadvantage as well, it was a blockade. He had an idea in his head that kept him from feeling.

Chapter 6.4.11.3 about blockades within sensing will refer to it.

As a summary it can be said, that the „short cranial training“ was preparatory and schooled his hand, because it trained him to feel such tiny movements. But the disadvantage was that he *had a very clear idea in his head, of what it could be* – he wasn't unprejudiced anymore, which led to a blockade.

6.3.1.7 Summary

Here the statements of the interviewed osteopaths are summed up. It will be listed, what the individual interviewees considered educating or supportive – and preparatory – for osteopathic techniques prior to osteopathic training.

1. TRAINING: When hands generally received many stimuli through touching and maneuvering people in a therapeutic context, be it during a massage, lymphatic drainage, neurological work, in manual therapy or by putting the hands onto someone's body.
2. TRAINING: When hands were required in special techniques through a stronger attention to perceptual process – as can be seen in every subarea.
3. TRAINING: When hands learned to be precise and exact, be it manual positions or manual performance. Lymphatic drainage and PNF are good examples, even though it generally stands for all subareas.
4. TRAINING: When hands are already used to “small, delicate things”, contrary to “big, unsubtle” things – when, according to Sutherland (2004) the “sense of touch was toned down”. Compare lymphatic drainage and early cranial training.
5. TRAINING: When hands are able to work in a flow, keeping up a rhythmic movement without stops, as in lymphatic drainage.
6. TRAINING: When hands have already experience communication with tissue.
7. SUPPORTIVE: When the osteopath works with joy and motivation.

8. SUPPORTIVE: When osteopaths already have been engaged with concepts with the same or similar basic idea or philosophy.

6.3.2 Non-professional training

Statements come from IP3, 6, and 7. IP 6 talks about contact with animals and trees, IP3 about playing the piano and IP7 about climbing.

6.3.2.1 Climbing

IP7 considers climbing as a training for the sense of touch and the proprioception:

„Auf der anderen Seite ah, sind sie [die Hände] aber sehr stark beim Klettern zum Beispiel, dass ich mich oft an sehr kleinen Dingen anhalten kann. Das mir zeigt, oder das einfach auch interessant ist, dass eine kräftige Hand, oder ein Sport, den man macht, in keinster Weise kontraproduktiv ist. Sondern sogar positiv. Weil ich da immer wieder auch spüre, aha das ist scharf, das ist nicht scharf. Das ist klein, das ist stärker. Das ist eine Kante. Das ist ein ständiges Auseinandersetzen mit der, mit dem emotionalen, mit dem, nicht emotionalen, mit dem, mit dem Thema Spüren. (IP7, 20, 34-44)

[“On hand my hands are very strong while climbing, I can cling to very small things. It shows that strong hands are in no way counterproductive in sports. Because I always feel, that is rough, this is not rough. That’s small, that’s stronger. There is an edge. It means constantly dealing with the emotional, non-emotional, with the subject of feeling.“]

Two abilities of his hands are described: Firstly, the ability of a strong – muscularly strong – hand, to cling on to small things. It is able to grip precisely and exactly. And on the other hand to assess a material’s extension and surface structure quite well.

The statements by IP3 regarding climbing were mentioned in chapter 6.2.1.2 referring to feeling experiences, but are summed up here as well. IP3 describes the perceptual process during climbing: from feeling a structure, whether something is rough, broad or narrow, to the thought *„Was mach ich daraus?“* [“What am I to do with it?”] to action. Interestingly, he says that this process becomes internalised: *„Und das ist ja dann etwas, was nicht bewusst abläuft, sondern das verinnerlichst du ja richtig.“* (IP3, 8, 20) [“This is something that does not happens consciously, you internalise it.“]

As a summary it can be said: Climbing is prolific for perception!

6.3.2.2 *Playing piano*

IP3 mentions playing piano. He speaks about it later into the interview and would like to talk about it:

„Ja genau. Und zu vorher fällt mir noch ein, was sicher, ich sag jetzt einmal, meine Hände auch ... ist zwar sehr konträr, aber was sicher meine Hände auch sehr geschult, war einerseits, dass ich, dass ich mit 10 Jahren angefangen hab, Klavier zu spielen, wo einfach Finger und Hände eine sehr große Rolle spielen und wo es auch sehr viel um Anschlag, um diese Dinge geht, die du sonst im normalen Leben nicht so hast. Und natürlich auch was Koordination, was verlassen sich auf gewisse Druckarten anbelangt, da sicher das auch geschult hat in der Richtung.(IP3, 7, 38-48)
[“And about what was said before, I can said, that my hands, even though it is contrary, were trained by starting to play the piano at the age of ten, where fingers and hands play a major role and which deals a lot with keystrokes and things like that you don’t have in everyday life. And certainly also concerning coordination, relying on certain forms of pressure, that helped with training in this direction.”]

“Playing piano“ is a big challenge for the hands. Ten fingers have to be coordinated in their mechanical function. And the sensory function is required as well.

6.3.2.3 *Contact with animals and trees*

IP6 talks about another aspect of the preosteopathic training of the hands. He is a physician as a basic profession and is not as manually influenced by his profession as his colleagues, who are physiotherapists. His answer to the question: How and by what means have your hands been trained before the OT:

„Am ehesten vielleicht noch Kontakt mit Tieren. Weil man, wenn man Tiere berührt oder streichelt oder pflegt, oder irgendwie eine Katze zum Beispiel streichelt [...]man dann in eine Empfindung reinkommt, die man nicht mehr steuern kann und die man bewusst nicht kontrolliert, und wo andere Erfahrungen in die Hände kommen als sie normalerweise in die Hände kommen. (lächeln)

Also, ich sage es so, ich hab zum Beispiel, ich hab Katzen, ich kenne Tiere, seit ich auch ganz klein bin, auch Katzen und so,[...] und ich hab natürlich irrsinnig oft Katzen angegriffen und dadurch spürt man natürlich, also durch das Schnurren wird eine Vibration ausgelöst und diese Vibration ist etwas, was die Katze beruhigt, aber ist auch etwas, was mit den Händen von einem etwas macht. Wenn man zum Beispiel

ganz kleine, neugeborene Tiere angreift [...]dann berührt man eine Information, die jenseits von allen möglichen anderen haptischen Qualitäten ist. Und die berührt man aber immer, wenn das Bewusstsein weghebt, wenn du ein Tier berührst, so wie wenn du ein Baby berührst. Aber ich glaube bei Tieren war es bei mir eher so als bei Babys. Früher halt. Vor der Osteopathie. Ich kann mich nicht erinnern, dass ich beim Babysitten je weggekippt wäre, zum Beispiel, als Studentin oder Schülerin. Aber bei Tieren kenn ich das gut. Oder bei Bäumen.“ (IP6, 3, 21 -51)

The author: „Dass du wegkippst heißt jetzt, dass du dir nicht mehr bewusst bist, was passiert?“ (IP6, 4, 2)

„Genau, dass man einfach die Erfahrungen in seine Hände kommen lässt, ohne dass man jetzt mehr beschreiben kann, ob das irgendwie rau oder weich ist oder ... , da kriegt man, glaube ich, schon Erfahrungen in die Hände, die dann später in der Osteopathie wieder auftauchen.“ (IP6, 4, 4-7)

[“Maybe mostly through contact with animals. If you touch an animal or stroke it or groom it, or stroking a cat, [...] then you get into a feeling you can’t control anymore, you don’t control it consciously and other experiences get into your hands than usually (smiles).

I’ll say for example, I’ve got cats [...] and I touched cats very often and through it you feel, the purring triggers a vibration and this vibration is something that calms down the cat, but it also does something to the hands. If you touch very small, new-born animals, [...] you touch information which is beyond every other haptic quality. And you always touch them if you leave the consciousness outside, if you touch an animal, if you touch a baby, but for me it was like this rather with animals than with babies. Previously. Prior to osteopathy. I don’t remember that I got carried away while baby-sitting as a student. I know that with animals. Or with trees. (IP6, 3, 21 -51)

The author: “Getting carried away means you are not conscious of what is happening anymore? (IP6, 4, 2)

“Exactly, that you get an experience in your hands where you cannot describe anymore whether something is soft or rough or,... I think you’re getting experiences in your hands that later surface in osteopathy.”] (IP6, 4, 4-7)

IP6 talks about an unusual experience. The gist lies in it being a feeling “you can’t control anymore, you don’t control it consciously”, that while touching animals you “you touch information which is beyond every other haptic qualities” and that one simply lets “the experiences simply come into your hands.”

This deals with “object identification through passive touching.” In chapter 4 in active and passive touching was defined and the term “haptic perception” was explained. In order to guarantee clarity, it shall be repeated that active touching is characterised by the active use of the sense of touch for the distinction of objects. It is called “haptic perception”, if an object is investigated with the hands and impressions are transmitted through the sensory system, which lead to cognitive processes. Contrary, passive touching refers to the person staying passive and objects are brought in contact with the skin or the hands in order to make them recognizable.

IP6 talks about this passivity. He refers to passive investigation when he speaks about “beyond all haptic qualities”. “Letting get into your hands” underlines passivity. One doesn’t search or control consciously – „*das Bewusstsein hebt weg*“ [“consciousness lifts off”]. These are “perceptual experiences” which later surface in osteopathy, according to IP6. Osteopathic work actually deals with “active and passive approach”. For several interviewees the question about approach is a personal subject and will be highlighted in chapter 6.4.3.4.

6.3.2.4 Summary

Here shall be summarized what the interviewees in their point of view consider as a training for osteopathic techniques from their non-professional activities.

1. TRAINING: When hands are trained e.g. in sports, in climbing or in a hobby, like playing the piano. The interviewees extended the “perceptual treasure” regarding the surface sensitivity and proprioception – additionally to manual capability.
2. TRAINING: When hands are used to “passive touching“, meaning “letting feelings happen“. Chapter 6.4.3.4 goes further into “being passive.”

6.4 THE OSTEOPATHIC TRAINING OF THE HAND

The following chapter is structured as follows:

6.4.1 **The access to osteopathy:** This shall be a kind of “warm-up chapter”, in which shall be investigated whether the hands and the opportunity for the hands’ perception training were the motivation for the osteopathic training.

Subsequently four chapters follow, which shall build the basis for “perception”. These chapters shall investigate the “knowledge” that osteopaths bring in, the “personal condition” of the osteopaths, the “preparation of the therapeutic situation” and the “personal attitude of the osteopaths”.

6.4.2 **The knowledge:** This chapter includes the four main topics: the anatomic-physiological knowledge, knowledge from technical literature, intuitive knowledge, personal knowledge and specific prior knowledge.

6.4.3 **The personal condition of the osteopath** means in this chapter 1. “health care”, as IP1 calls it, 2. the personal way of healing, 3. the osteopath’s present condition and 4. the personal preparations.

6.4.4 **The preparation of the therapeutic situation:** This chapter shall deal with the question how osteopaths establish contact to their patients.

6.4.5 **The personal attitude of the osteopath:** In this chapter the IPs describe how they get free from the pressure of “having to feel something”.

After the basis for perception has been provided, perception per se shall be described.

6.4.6 **Attention:** Attention as the main mechanism for perception converts an available stimulus into an attended one. Here the IPs talk about “directing attention” within the framework of their osteopathic profession.

6.4.7 **Measuring perception:** By means of psychophysical methods such as describing, discovering, perceiving of specifications, searching and recognising, inner processes of the osteopaths during perception are deduced. In an excursion about “sensing” the way from feeling by means of the tactical sense right up to perception via the entire body are illuminated.

6.4.8 **Communication and exchange:** The psychophysical methods are the basis for comparing what is sensed and exchanging what is perceived. Thus communication in the narrow and broader sense plays an important role here.

6.4.9 **Talent:** This chapter shall show in how far talent and the same familial interests are important for the osteopathic perception development.

6.4.10. **Training:** The finger training of an osteopath consist in „Tun! Arbeiten damit! Sofort umsetzen! Üben und Übungen!“ [“Doing! Work with it! Use it immediately! Excercise and exercises!“]

In the subsequent chapter important principles are presented.

6.4.11 **Self-confidence:** The way from skepticism and doubt, which are impedimental for the perceptual process, via confirmation right up to trust in one’s own perceptual ability is described.

6.4.12 **Visualization:** This is an important support for the osteopaths.

6.4.13 **Having fun:** Fun, happiness and motivation are on the one hand auxiliary to and on the other hand they are the quintessence for a good sensory integration of new sensory perceptions.

The next chapters deal with the “Output“.

6.4.14 **Developmental steps and treatment repertoire:** By means of the example of IP1 it shall be described how an osteopath learns to feel the tissues of the body by means of structural, cranial and visceral techniques.

6.4.15 **Dialogue with the tissue:** The dialogue with the tissue, which consists of three components, is a complex and learned ability.

6.4.16 **Thinking Fingers:** The personal interpretation of the thinking fingers describes “dexterities” learned by other means.

The chapter it shall look back once again on the way of perceptual training and thereby some of this way’s characteristics shall be described and some of the companions shall be presented.

6.4.17 **The way:** This chapter shall examine certain characteristics of the osteopaths' way in order to gain osteopathic abilities and furthermore deal with the question whether this way is a continuous or rather stepped one.

6.4.18 **The companions:** The question of "Who was why important as a companion?" shall be answered".

6.4.1 Access to osteopathy

„Unbemerkt war ein Samen gesät worden.“ (Sutherland, 2004, IV, 11) [“Unnoticed a seed was sown.”]

In 1897 Sutherland hears from his friend Conner about osteopathy for the first time. Conner tells him respectfully and approvingly about Dr. Still who has discovered the basic principles of osteopathy. Sutherland's interest is awakened and he repeats many times „erzähle mir mehr“ [“tell me more“]. As a journalist he attends one of Dr. Still junior' lectures. After his brother's health significantly improved through osteopathy and Sutherland talked to several students and patients, he resolved upon starting the study of osteopathy.

In short this is the story of how Sutherland came into contact with osteopathy. In the chapter “Access to osteopathy”, the author tries to find out which factors played an important role for the interviewee's decision for the osteopathic training (OT). Mainly she wants to find out whether their hands and the abilities of their played a role. This interest can be traced back to the author's own personal story. Two incidents awakened her interest in becoming an osteopath. The first of these two incidents was that one of her colleagues told her about an osteopath's ability of feeling, by means of his hands, that she was pregnant in the fifth week of her pregnancy. And the second incident was when the author could observe how an osteopath treated a child by means of cranial osteopathy. She was so fascinated by these osteopathically working hands that she wanted to have such “seeing” and “feeling” hands as well in order to treat patients in the best possible way.

Barral, too, talks about his personal access to osteopathy in an interview. He worked as a physiotherapist and preferred to massage his patients instead of letting them exercise on their own. He loved to follow and feel the tissues with his hands. Finally one of his patients called his attention to a new form of therapy:

„Eines Tages kam jemand mit einer Lumbalgie und eine oder zwei Wochen später erzählte er mir: `Es geht mir besser, ich fühle mich gut – aber nicht wegen ihnen! Sondern weil ich jemand in den Bergen aufgesucht habe. Und der machte etwas an meinem Magen, so dass die Rückenschmerzen verschwanden.`“ (Barral, 2007, 4)

[“One day someone with a lumbalgy came to me and one or two weeks later he told me: ‘I am better, I feel good – but not because of you! But because I visited someone in the mountains. And he did something with my stomach so that my backache disappeared.]

So this showed him that there is a certain connection between organs and back. And he took a decision: „[...] *aber irgendetwas sagte mir, dass musst du tun! So beschloss ich Osteopathie zu studieren. Ich wollte die notwendige Feinfühligkeit erlernen. [...] Ich ging also auf eine Osteopathieschule und versuchte meine Finger zu trainieren.*“ (Barral, 2007, 4) [“[...] but something told me, you have to do it! And thus I decided to study osteopathy. I wanted to learn the necessary delicacy of feeling. [...] So I went to a school of osteopathy and tried to train my fingers.]

Thus in both cases, in the case of Barral and in the case of the author, one important factor for the decision for osteopathy was the possibility of training one’s hands’ sensitiveness which seemed to be possible in osteopathy.

Now, which are the reasons the interviewees give? Although the question about their personal access to osteopathy was not part of the guidelines, it somehow emerged naturally as soon as the interviewees started talking about earlier feeling experiences and their experiences as osteopaths.

All interviewees, except for IP6 talk about it. Similar to the author, also in the case of IP4 two experiences were crucial. On the one hand he was fascinated how long-lasting the healing effects of osteopathic techniques were after he was treated osteopathically himself and on the other hand he was fascinated by the hands of an osteopath who treated her son after a ventous birth. „*Das hat mich gewundert, das hat mich fasziniert, ja, dass man in den Schädel hineinspüren kann bei einem Kind, ja!*“ (IP4, 5, 30-38) [“I was surprised, that fascinated me that one can feel into the skull of a child, yes!”] he says and thereby gives utterance to his fascination. His astonishment becomes obvious by the following statement as well: „*Genau. Was die können und was die erfüllen!*“ (IP4, 6, 1) [Exactly! What they are able to do and what they feel!”].

IP1 is also very glad to have decided in favour of osteopathy. „*Aber für die Hände war`s genau das, was ich gesucht hab!*“ (IP1, 5, 50) [“But concerning my hands it was exactly what I was looking for!“]. He looked for „*feinerem Handwerkzeug*“ [“a more delicate armamentarium“], in order to „*wirklich mit, mit dem Gewebe ganz präzise zu arbeiten, passiv.*“ (IP1, 3, 43-49) [“really work with, with the tissue more precisely, passively.”]. He had never found the traditional physiotherapeutic techniques that fascinating and decided in

favour of osteopathy after he had attended an AORTE seminar and the introductory seminar. IP3 does not regard his hands as the main reason why he wanted to learn osteopathy, but he wanted to enlarge his „*Werkzeugkasten*“ (IP3, 5, 1) [“tool kit”] after he had reached certain limits in physiotherapy. Finally one of his colleagues called his attention to osteopathy and as it sounded „*total spannend*“ (IP3, 4, 2) [“absolutely exciting”] he started the osteopathic training.

IPs 2,5 and 7 did not have explicitly their hands in mind when they chose osteopathy. IP2 wanted to follow a „*gesamtheitlicheres Konzept*“ [“holistic concept”] and never wanted to attend individual classes. „[...] für mich war klar, ich will keine Stromtherapie machen oder sonst irgendwas, ja, sondern schon das Arbeiten mit den Händen, wobei ich das nie so im Kopf gehabt hab.“ (IP2, 19-22) [“[...] for me it was clear I did not want to do electro-therapy or something, yes, but I wanted to work with my hands, although I really never had that in my mind like that”]. Thus the hands were unconsciously the „*Mittel*“ (IP2, 3, 26) [“means”] for her holistic concept.

IP5 and 7 regard the “structural” as their access to osteopathy. IP5, who worked at a neurological ward, needed „*irgendeine strukturelle Technik*“ (IP5, 5, 46) [“some kind of structural technique”] and thus chose the osteopathic training, because it sounded good. To the author’s question whether such stories about osteopathically working hands were any kind of motivation he answered: „*Nein, überhaupt nicht!*“ (IP5, 6, 31) [“No, absolutely not!”]. IP7 regards the good structural training in osteopathy as decisive for his choice of the OT.

6.4.1.1 Summary

It becomes apparent that for four of the six interviewed osteopaths the hands were more or less the main reason for their decision for osteopathy. In case of IP1 and 4 it was their fascination for osteopathically working hands, as it was in the case of Barral and the author. IP2 wanted to work with his hands, but mainly looked for a holistic concept. IP3 wanted to enlarge the tool kit for his hands. IP5 and 7 came to osteopathy via the “structural”.

6.4.2 Knowledge

This chapter deals with the “knowledge” that the osteopaths bring in. “Knowledge” has been mentioned already twice in this paper. For one thing concerning the basics of perception in chapter 4.3.2 and for another thing concerning the finger description, based on Sutherland, in chapter 3.3.

As mentioned in the chapter about fundamentals, knowledge influences the perceptual process. Knowledge is a “cognitive influence on perception”. It is not part of the perceptual circuit but is exterior to it and thus can influence it. In this case knowledge means that kind of information the perceiving person brings in. According to Goldstein (2008) there are two kinds of knowledge: such knowledge the perceiving person has had for a long time and another kind of knowledge that comes from recently experienced incidents. The former includes the ability of categorizing objects. Furthermore “bottom-up“ and “top-down“ processing show how information, i.e. knowledge, is brought into perception. While „bottom-up“ processing is stimulus-controlled and based on the incoming data of the stimulus, “top down” processing has knowledge as its basis. This chapter shall show that osteopaths bring in knowledge they have gained a “more or less“ long time before by means of activities such as learning or reading. Of course the perceptual training of the hands of osteopaths is partly based on “bottom-up” processing, as it has to do with the stimulation of receptors and thus with surface sensitivity and proprioception. But on the other hand “top-down” processing plays an important role as well.

In finger-description it becomes clear from the metaphor „wissende Finger“ [“knowing fingers“] which knowledge osteopaths should bring in according to Sutherland (2004). He means the “cognitive knowledge“, based on anatomy and physiology, the “intuitive knowledge“, which „vom physischen Sinn entfernt und sich ohne Zutun des Geistes ausdrückt“ [“moves away from physical sense and is expressed without any contribution of the mind.”] and finally the “personal knowledge”, which led Sutherland via self-experiments to practical knowledge about lesions and their releases. As will be shown in the following, osteopaths bring in such a knowledge.

The knowledge brought in can be categorized as follows: 1. anatomic and physiological knowledge gained by learning, 2. knowledge gained by means of reading technical literature, 3. Intuitive knowledge, which stands for “knowing fingers” for the majority of the osteopaths inquired and 4. personal knowledge, gained from experiences in which the osteopath was a patient himself.

6.4.2.1 Anatomic-physiological knowledge and the cranial model

Six of the seven interviewees talk about this topic. In case of IP2 there are no such statements, probably because it was not explicitly asked for them.

The corresponding statements result from answers to the questions in the guideline concerning the support for perceptual training. Several areas were mentioned in which learning was important. These areas are anatomy, physiology, embryology and biomechanics. In addition to the traditional subjects, furthermore the knowledge about the biomechanical model from craniosacral tuition is mentioned. All six interviewees think it is important to have some background knowledge in these areas and affirm this by means of very similar statements. IP4 stresses this with the words „Ja, ja. Unbedingt!“ (IP4, 16, 40) [“Yes, yes. Certainly!“] and adds the word „Absolut“ (IP4, 16, 44) [“Absolutely!“]. IP5 and 7 react similarly „Ja, absolut“ (IP5, 20, 23 und IP7, 11, 4) [“Yes, absolutely!“]. IP7 points out that studying is absolutely:

„Ich mein, das sind Dinge, die, die musst du schon lernen. Gewisse Dinge muss man lernen, weil sonst kann man's gar nicht verstehen. Und wenn ich das nicht gelernt hätte, hätte ich nicht gewusst, einen Zusammenhang. Weil sie einfach anatomische oder schon, sagen wir einmal, mechanische Zusammenhänge gibt, die man einfach wissen muss. Um das zu verstehen. Und vielleicht, zuerst ist schon oft das Verstehen bei mir. Also ein Lernen, ums Lernen kommt man ja nicht herum. Also komm ich nicht herum. Andere weiß ich nicht. Aber zumindest in der Osteopathie habe ich schon viel gelernt, sehr viel gelernt.“ (IP7, 10, 14-31)

[“I mean those are things that you have to study. You have to study certain things, because otherwise you're not able to understand it. And if I had not studied them, I would not have known the connections. Because they are anatomic, or let's say because there are mechanical connections you absolutely have to know. In order to understand. And maybe, I mean, understanding often comes first for me. That means there's no avoiding of studying. I mean, I can't avoid it. Others I don't know. But at least I've studied a lot in osteopathy.]

According to IP7 it is important to gain knowledge in order to theoretically understand anatomic or mechanic connections. Studying these things can be very exciting, as IP1 states. And he has the following words for expressing his joy and interest in studying:

„Es war auch unglaublich faszinierend. Na, gar nicht so sehr das System, einfach auch nur die, schlicht und ergreifend die Anatomie und Physiologie vom Schädel und vor allem was drinnen ist und der Sinnesorgane. Und das dann mit diesem biomechanischem Modell auch noch mal verbunden zu kriegen, das war einfach total spannend!“ (IP1, 8, 37 und 45-48) und weiters: „Na, also wir haben in der Lerngruppe, in der Trainingsgruppe in der wir gearbeitet haben, irrsinnig viel

getüftelt mit dem. Es war auch sehr vergnüglich, das zu tun. Also das war keine Strafe!“ (IP1, 9, 14-19)

[“It was extremely fascinating, too. I mean not the system itself, also simply anatomy and physiology of the skull and above all all that is inside and of the sensory organs. And to get that connected with the biomechanical model, that was really exciting!” (IP1, 8, 37 and 45-48) and she continues: “Well, in our study group, in the training group we have worked a lot, we really fiddled about with it. It was really pleasurable to do so. It was no punishment at all!”].

IP1 talks about a general and a specific anatomy of the skull. “Specific” anatomy is called this way, because it is based on the research of Sutherland and is the basis for the cranial model of mobility.

IP6 talks about positive motivation as well: *„Ja. Das ist ja auch was Schönes, die Anatomie, das ist ja was Tolles. Macht ja auch Spaß, also zum Beispiel kraniale Anatomie oder so.“* (IP6, 9, 46-50) [“Yes. That is something good, too, anatomy, that is something great. It’s fun, I mean, for example cranial anatomy or so.”] That studying requires a lot of time and energy becomes clear from the following utterances. IP1 talks about an “extreme” engagement (IP1, 9,5) with the biomechanical model of the cranial system:

„Ich glaube, das hat uns das erste halbe Jahr Cranio beschäftigt, bevor uns sonst irgendetwas beschäftigt hat, also da waren die Hände, die Hände irgendwie einmal nicht wichtig. Und wir haben’s gelernt über dieses mechanische Modell. Und das war mir sehr plausibel, auch in den Händen. Es war mir damals so plausibel wie es mir jetzt schon seit langem überhaupt nicht mehr plausibel ist (lacht).“ (IP1, 8, 20-24)

[“I think that occupied us for the first half year of Cranio, before we did anything else, I mean at that time the hands were somehow not that important. And we learned about this mechanical model. And it was very clear for me, also in the hands. It was so clear for me then, it has not been that clear for me ever since (laughs)”]

These words show that it was intense and “head-related“ as the hands, and thus feeling, were not that important at that time. IP1 takes even one more step forward. On the one hand he describes gaining cognitive knowledge and on the other hand connects it to feeling with the hands: *„plausibel in den Händen“* [“clear in the hands”]. IP7 is even more precise when he explains why knowledge is important: *„Aber man muss es auch wissen, um zu spüren und man muss spüren können, um das Wissen umzusetzen.“* (IP7, 10, 37-38) [“But you also have to know it in order to be able to feel it, in order to be able to put this knowledge into practice.”]. IP4 creates a similar relation between knowledge, perception and feeling.

„Ja. Ich denk jetzt, wenn du da einen Hintergrund hast, lernst du auch diese Ebenen wahrzunehmen, ja. Man kann nur das wahrnehmen, wo man eine Vorstellung von etwas hat. [...], wenn du etwas weißt, kann es irgendwann in deine Hände kommen. Nein. Wenn du, wenn du nix, kein Hintergrundwissen hast, was soll dann ins Bewusstsein kommen, nicht? Also wenn du in Kontakt bist. Ja. Ich glaub trotzdem, auch wenn dir nicht alles ins Bewusstsein kommt, dass trotzdem viel passiert so in der Weise, wie wir heute arbeiten. Aber es ist schon spannend zu wissen, was passiert, ja. Und drum bin ich eigentlich jetzt, nachdem ich wirklich meine, meine Hände und meine Wahrnehmung so geschult hab, wirklich jetzt geh ich wieder auf die Ebene Anatomiebuch, Physiologiebuch und das wieder her zu nehmen mehr.“ (IP4, 17, 1-34)

[“Yes. I think if you have such a background, you learn to perceive those levels. Because you can only perceive what you have an idea of [...], if you know something it can come to your hands some time. If you don’t, if you don’t have any background knowledge, what should come to your consciousness, isn’t it? I mean if you are in contact. Yes. Nevertheless I believe that even if not all comes to your consciousness, very much happens in the way we work today. But it is exciting to know what is happening, yes. And this is why that now, after my, my hands and my perception have been trained this way, that now I go back to the level of anatomy book, physiology book and to take that more again.”]

Knowledge is important. It means having an idea of the structures of the body on many different levels, be it on the level of anatomy or physiology, on a functional or on any other level. You can only learn to feel those structures or tissues that you know that exist. Vice versa, according to IP7, feeling and perception are the basis for implementing knowledge. “Implementing” seems to refer to an action that is the result of perception. According to Goldstein (2008) action can be also a “mere“ rise of attention that makes one noting further stimuli and thus leads to new perceptions. The perceptual process is a dynamic one. However, perception is not always followed by recognition. According to Goldstein (2008) recognition is the ability to categorize objects. With regard to osteopathy that means, according to IP4, that some perceptions do not reach the consciousness, although they are there and others do so and are recognized. Precondition for awareness is knowledge.

The small side-effect that anatomy has to be studied again and again becomes clear from the statement of osteopath 4 quoted above. „Ich hab es halt wieder gelernt und wieder gelernt“ (IP6, 9, 32) [“I mean I have studied it again and again.“] is what interviewee 6 says about it.

IP5 and 7 point out that they need knowledge as a certain “structure behind”. IP5 gains security and confidence from it.

„Genau. Ich könnte jetzt nicht, ich hätte nicht so viel Vertrauen, sagen wir einmal so, in mich gehabt, dass ich sage, ich spüre jetzt einfach, ... dazu wäre ich dann zu unsicher gewesen. Es gibt mir sicher die Anatomie die Sicherheit: ja, da ist das und das und das. Das kann flüssig sein, das darf flüssig sein, ja. Das darf fester sein oder so was.“ (IP5, 20, 28-32)

[“Exactly. I couldn’t, I wouldn’t have that much confidence, let’s say it this way, in myself, that I say, I can feel that now,... I would have been too insecure for that. Anatomy definitely gives me self-confidence: yes here is this and this and that. That can be liquid that may be liquid, yes. That may be more solid or something like that.”]

By means of such utterances, IP5 reveals that he wants to term and describe the structures he perceives. He wants to have knowledge about a healthy tissue’s location and condition in order to be able to recognize modified conditions. He talks about qualities such as liquid or solid. In chapter 3.1., in which the “feeling fingers” were described, it has been dealt qualities. The knowledge of modified conditions of the tissue leads to diagnosis. One essential aspect that plays an important role here is “description”. It means “terming the characteristics of a stimulus” (cf. chapter 4.3.4.1) – and is one method of examining perception. This phenomenological approach is very significant for osteopaths and therefore shall be investigated in more detail in this paper.

IP7 also regards a precise anatomic basis as crucial and alleges the following example from the visceral area: *„Na, einfach sehr zielgenau. Darum geht es. Zu wissen, da ist das und da ist das. Und da gibt es kein Wenn und Aber. Das, der Dünndarm beginnt da und nicht wo anders.“* (IP7, 12, 30-32) [“Well, really accurate. That’s what it is about. To know here is this and there ist hat. And there is no ifs, ands or buts. This, the small bowel and it’s not somewhere else.”] Thus he talks about precise anatomic knowledge of the visceral structures. By means of “accurate” he refers to precise practical work, which shall be investigated in more detail in chapter 6.4.18.3.

IP7 considers “gaining knowledge” as quality assurance for the osteopathic work.

„Weil sonst könnte ich ja genauso als ah, als Straßenbahnfahrer auch cranial arbeiten, wenn ich will, ja. Und der braucht aber auch eine Ausbildung sonst ... und das ist mir wichtig, zu sagen, ich habe das gelernt, dadurch kann ich das. Nicht nur für mich sondern auch für Außen, damit man dem ganzen Beruf ein bisschen, nicht ein

bisschen sondern damit man dem Beruf eine, sagen wir mal, seinen Platz gibt in unserem System. (IP7, 13, 22-27)

[“Because otherwise I could work cranially as a streetcar driver, if I want, yes. But he would need training, too, otherwise... and it is important for me to say, I’ve learned that and this is why I’m able to do it. Not only for me, also for the outside world, for giving this profession its own, let’s say, a place within our system.”]

6.4.2.2 Summary

It becomes apparent that the osteopaths inquired, consider knowledge as something very important and that they have spent a lot of time for gaining such knowledge and that they have done so with a lot of enthusiasm and motivation. It is important for two reasons: on the one hand knowledge is the necessary background for feeling and perceiving: „*Was soll sonst in die Hände kommen?*“ [“What shall come to the hands otherwise?”] is a statement of IP4 that confirms this. And on the other hand it is the basis for making diagnoses, as knowledge enables osteopaths to describe tissues and thus to distinguish healthy tissues from modified conditions. The description of perception makes comparison possible, as will be highlighted in chapter 6.4.8 on communication.

Barral's words shall complete this chapter: „*Für mich bedeutet Osteopathie: Finger auf der Anatomie, auf präziser Anatomie*“ und: „*Wenn ich einen Rat an Osteopathieschüler weitergeben kann, besteht er darin, die Anatomie von Grund auf zu erlernen, sie bildet die Basis der Osteopathie.*“ (Barral, 2007, 5)

[“For me osteopathy means the following: fingers on anatomy, on precise anatomy.” “If I may pass on one advice to students of osteopathy it would be that one has to study anatomy rootedly as it is the basis of osteopathy.”]

6.4.2.3 Knowledge from technical literature

Gaining knowledge from technical literature is mentioned by only two osteopaths. They consider it important for their personal “osteopathic perceptual process”. IP7 briefly mentions that he read Still for his master thesis and states that one of Sutherland’s book facilitated his access to craniosacral osteopathy, as classes left him in „*so ein Durcheinander*“ (IP7, 19, 20-23) [“in such a confusion”]. IP2 mentions classes as well and states a certain discontentment:

„Also, ... ich glaub, das Manko, das, ahm, Manko? also es war einfach zu wenig Hintergrundwissen. Ich hab keinen Sutherland gelesen, ich hab keinen Becker gelesen oder so. Also, was immer wieder empfohlen. In der Ausbildung. Wo ich mir denk, das

wär sicher ein wesentlicher Aspekt, sich mit den Dingen schon früher auseinanderzusetzen“. (IP2, 9, 27-34)

Die Autorin: Weils im Unterricht jetzt nicht geht? Weil es komprimiert ist, und dass man das einfach selber macht?

„Genau. Damit man einfach eine Grundidee hat, worum es geht.“ (IP2, 9, 43)

[IP2: “Well... I think the shortcoming, the, ahm, shortcoming? well, it was simply not enough background knowledge. I did not read any Sutherland, any Becker or so. I mean what they always recommend. During the training. Where I think it would be an important aspect to deal with these things much earlier.”

The author: “Because that is not possible in class? Because it is compressed and that one should do that by himself?

IP2: “Exactly! In order to gain a basic idea of what it is all about.”]

Thus IP thinks that background knowledge is important, here he means, however, a better understanding of the ideas of Still and Sutherland. To him it has always seemed somehow *„immer suspekt, die Dinge von A nach B zu schieben. Also die Idee, dass das Sphenoid so ist und man muss es dort hinschieben.“* (IP2, 9, 47-48) [“strange to move these things from A to B. I mean the idea that that is the sphenoid and so on and that you have to move it towards somewhere.”]. He talks about the different “approaches to and realizations of” the craniosacral therapy here. There is a rather active version where clearly active impulses are set for the release of lesions, i.e. “things are moved“ around, according to IP2 and a rather passive version, in which the osteopath acts more passively. This “rather active or passive” behavior can be referred to the perceptual process of diagnose finding as well as to therapy, the osteopath’s action. The terms “active and passive touch“ come up here, therefore see also the chapter on . The question arises: shall the osteopaths’ touch be active or passive? Shall he use his tactile sense actively and achieve perception by means of haptic finger movements or shall he let perception come up passively? Fact is that both things occur in osteopathy and this is rather a question of craniosacral osteopathy. However, this is an aspect that shall not be dealt with here.

It is important for IP2 to find out what Still and Sutherland actually meant.

6.4.2.4 Intuitive knowledge

This subchapter deals with a further kind of knowledge the osteopaths bring in: the intuitive knowledge. In the chapter “finger description” it becomes clear that according to Sutherland (2004) “knowing fingers” can be interpreted as intuitively knowing fingers. A knowledge,

which according to Sutherland (2004), „vom physischen Sinn, dem Tastsinn, entfernt“ [“moves away from the physical sense, the tactile sense”] and expresses itself without any contribution of the mind, i.e. unconsciously.

The results that are described here are the answers to the question from the guideline: “Which of the following words describes your hands best? Feeling, seeing, thinking, knowing, intelligent and clever?” The author was very surprised by the answers, because all IPs answered “knowing”. IP1,2,3 and 4 spontaneously answered only “knowing“. IP5, 6 and 7 thought that “knowing” was most important but found “feeling” very appropriate as well. IP5 was the only one who chose “thinking” as well. Concerning “intelligent” IPs6 and 7 had contradictory thoughts, as IP6 was strictly against “intelligent” whereas IP7 found it quite adequate. All of them explained why they had chosen “knowing” and what “knowing” fingers meant to them. IPs 1-5 think that “knowing” fingers correspond to intuitive knowledge, IPs 6 and 7, on the other hand, explain that the term “knowing” fingers stands for intuitive as well as cognitive knowledge. Later in chapter 6.4.16 “thinking fingers“, the explanations of all adjectives are compiled.

What follows are the concrete statements of the IPs:

IP1, 2, 3, 4 and 5 explain knowing fingers with very similar words. They all stress that this is a kind of knowledge that comes via the hands and not via the head. Thus, it is a kind of unconscious knowledge. IP1 knows situations in which he knows: „*Des is jetzt genau des!*“ (IP1, 20, 28-51) [“This is what it is exactly!“. He gets a clear, not inducible information that does not come via the „*Großhirn*“ [“cerebrum”] (IP1, 20, 28-51). IP2 thinks that there are „*wissende Ebenen gibt*“ [“knowing levels“] on the part of the patient as well as on the part of the therapist and these „*verbinden sich, ohne dass man es unbedingt im Kopf hat.*“ (IP2, 16, 37-45) [“get connected without having it on one’s mind.“] IP3 also has the feeling that his „*Finger schon vorher wissen, bevor er es zu Ende realisiert hat.*“ (IP3, 13, 45-51) [“fingers know it before he even has realized it“]. Meanwhile he trusts very much on the knowledge of his fingers and does not mind the skepticism in his head any longer. IP4 says sententiously the same: „*[...] weil die Finger, ohne das Hirn einzuschalten, genau wissen.*“ (IP4, 20, 30-41) [“[...] because the fingers know exactly even without activating the brain.”]. In his explanation IP5 does not use the words hands or head, but describes it as follows: „*Es ist irgendein Wissen in mir. [...] dass ich einfach weiß, dass ich da jetzt hin muss.*“ (IP5, 13, 43-50) [“It is some knowledge inside of me, [...] that I simply know, that I have to go there now.”]. Sutherland’s words „...eine Berührung, die weiß“ (Sutherland, 2004, II, 190) [“... a touch that knows.“] describe this demarcation from “consciousness”.

The first part of the statement of IP6 hints at cognitive, conscious as well as at intuitive, unconscious knowledge. He thinks that osteopaths construct a memory, like a data base and compares their knowledge to books on a shelf. But then he adds a sentence that makes one think of intuitive knowledge: *„Wissend heißt, dass du vieles in den Händen hast, was du gar nicht benennen kannst und was du trotzdem weißt, also was du vielleicht einmal erfahren hast.“* (IP6, 13, 1-8) [“Knowing means that you have so much in your hands that you cannot even name but that you nevertheless know, thus that you have experienced once.”]. This statement is reminiscent of Traufetter’s definition of intuition: *„Es ist Wissen, von dem wir nicht wissen, dass wir es überhaupt erworben haben. Dieses Wissen liegt wie in der Bibliothek vor, in der nach Stichworten gesucht wird.“* (Traufetter, 2007, 131) [“It is knowledge of which we don’t even know that we have acquired at all. This knowledge lies somehow in a sort of library in which we search for key words.”]. Traufetter proceeds from the assumption that very much of our perception is stored automatically and subconsciously. *„Erkennt das innere Radar ein bekanntes Muster, dann setzt es Gefühle frei, die den Geist in seinen weiteren Handlungen leiten. Nicht zwangsweise müssen Wissen und Gefühle dabei in das Bewusstsein treten.“* (Traufetter, 2007, 131) [“If our inner radar recognises a well-known pattern, it sets free certain feelings that lead the mind in its subsequent actions. Thereby knowledge and feelings do not necessarily have to reach the consciousness.”]. According to Traufetter, very often not much more than a hazy notion appears on the surface of the alert mind. It is striking that IP6 and Traufetter talk about books on a shelf or in a library, respectively.

IP7 defines “knowing fingers” mainly via a *„eine Grundlage, die dahinter steht“* (IP7, 19, 10-12) [“a basis that is behind”] and thereby means the basis of anatomy and physiology and is thus following the slogan of Still that says: *„Die Osteopathie ist Wissen oder sie ist gar nichts.“* (Sutherland, 2004, III, 47) [“Osteopathy is knowledge or is nothing.”]

However, he points out that he becomes more sensitive via work and thus gains certain sensuous skill: *„Dass man spürt, wie es einem Menschen geht, ohne dass du jetzt ihn angreifst. Oder er braucht auch gar nichts sagen. Das sind halt Dinge die sich entwickeln.“* (IP7, 17, 21-44) [“To sense how a person feels without even having to touch him. Or he doesn’t even have to say something. These are things that develop.”]. One can say that he talks about an intuitive feeling towards the patient and his condition and he does not even need direct mechanical contact via the hands in order to achieve it.

Fulford calls intuition one of the most important aspects of osteopathy:

„Für mich kommt sie [die Intuition] in zahlreichen Fällen ins Spiel und sie ist tatsächlich ein wichtiger Grund, warum ich in der Lage bin, so viele ungewöhnliche Krankheiten zu positiv zu beeinflussen. Ich kann Intuition nicht erklären: es ist keine Stimme in meinem Kopf, noch steht sie für Worte an der Wand oder Schriften im Himmel. Sie ist nur ein unerklärliches Gefühl, eines, das mich irgendwie zu richtigen Diagnosen führt.“ (Fulford, 2005, 80)

[“For me it [intuition] plays an important part in many cases and is actually one very important reason why I am able to positively influence that many unusual diseases. I cannot explain intuition: it is not a voice in my head, nor does it stand for words on the wall or writings in sky. It is only an inexplicable feeling that somehow leads me to the correct diagnosis.]

Thus Fulford demarcates his intuition from “head“.

Now, let us turn briefly to *intelligent fingers*, which are often associated to the *knowing fingers*; cf. Chapter 3. IP6 stresses the unconscious process via the hands as opposed to the “thinking process”. The reason why he would not associate intelligent with his fingers is that he connects intelligent with cognition. IP7 thinks that intelligent is appropriate, because new perceptions are compared to already acquired ones. Thus he comes close Ayres’ (2002) definition of intelligence, who regards intelligence as the ability to establish contacts, to connect thoughts and to recognise connections. Therefore see also chapter 3.

6.4.2.5 Summary

Intuitive knowledge is opposed to cognitive knowledge. The IPs confirm this intuitive, unconscious knowledge with their own words. Over the course of the osteopathic training osteopaths develop fingers that know intuitively. Thus they work exactly how Sutherland recommended it.

6.4.2.6 Personal knowledge

Chapter 3.3.3. explained which form of personal knowledge Sutherland gained. By means of being his own guinea pig, he inflicted himself with lesions, which he was able to release subsequently. Thus he could sense how lesions and their release feel like. He wanted to have first-hand experience in order to better understand the cranial mechanism. Sutherland was aware of the problem of the transfer of knowledge to his students. In this chapter the interviewees talk about their experiences of being treated by another osteopath and that thereby they could gain some personal knowledge. Also practicing on one another during the

osteopathic training is basically a sort of treatment. Now, what do the interviewees think of being patients themselves?

IPs 4,5,6 and 7 make statements about this. The most precise statement is expressed by IP6. His words are quite similar to those of Sutherland:

„Na ja, ich finde zum Beispiel, was ganz Wichtiges ist, also, bei diesen ganzen Fähigkeiten, die man mit den Händen erlernt, gibt es ja auch immer diese andere Seite, dass man auch, was andere erlernen, an sich spürt.[...] Ansonsten gab's das eigentlich nicht. Und dadurch hat man natürlich viel gespürt, was verschiedene Techniken mit einem machen oder was verschiedene Verbindungen im Kopf, zwischen Hypophyse - Epiphyse, dieses Dreieck oder so, was das macht auch mit einem. Mhm. Das war eine Empfindung, die man irgendwie gehabt hat, und wenn man das dann auch gemacht hat oder das, was man vorher gemacht hat, konnte man damit irgendwie. Da hatte man noch einen Referenzpunkt mehr, quasi. (IP6, 7, 29-48)

[“Well, I think, for example, something very important concerning all these abilities that one learns with the hands, there is always this other side that we all on ourselves what the others learn. [...] Apart from that that was not really there. And of course thereby one felt a lot what the different techniques do with oneself or what certain connections in the head, between hypophysis and epiphysis, this triangle or something, what that can do with oneself. That was an experience that one had somehow and one has done that too before, one could somehow. One had somehow another additional point of reference.”]

Thus the core statement, which is similar to Sutherland's statement is that *„verschiedene Techniken mit einem etwas machen“* [“the different techniques do something with oneself”]. As a patient the osteopath perceives certain sensations which can help him in applying the different techniques. He experiences reactions that provide him access to a better understanding of the cranial mechanism or the mechanisms of the human body in general. Thus he has this personal experience as an additional point of reference. As the techniques have to be practiced, the question arises how the “guinea pigs”, which means the osteopaths who “act as patients”, thereby feel like. Was the technique applied well to him or not? Does he benefit from practicing or does it rather harm him? This is an important question for IP6 and he expresses criticism that in his opinion only one of the lecturers “cared for that”. IP4 is also aware of the fact that it is important to practice the techniques before they are mastered and that that is possibly not always “convenient” for the patient. But he stresses that he has rather benefitted from practicing and did not experience it as something negative or

inconvenient. „Und ahm, für den Patienten, ich hoffe, dass er halbwegs (lachen) verarbeitet hat, wobei ich selbst als Klient dann das nicht als unangenehm empfunden hab, wenn wer anderer bei mir gespürt hat.“ (IP4, 8, 8-10) [“And, ahm, for the patient I hope that he has somehow (laughs) come to terms with it, although I, when I was a client, I did not conceive it as something inconvenient if someone else sensed me.”]. This personal experienced knowledge increases the respect for the patient.

IP4 had been treated before the osteopathic training very successfully by a well-known osteopath. Due to the healing success this incident was so fascinating to him that it became his motivation for starting the osteopathic training; therefore refer to chapter ... concerning access to osteopathy. IP7 states that he was treated several times by a lecturer that he had considered his idol.

For IP5 a treatment by one of the lecturers in the sixth year of his training was decisive. This incident showed him the “powerful” possibilities of osteopathic techniques. Furthermore it showed him the great possibilities of our senses. IP5 was treated by this lecturer: „[...] *der hat auf einmal mich bewegt nur mit zwei Fingern. Irgendwo hat er sie hingehalten, und ich bin so ganz tief weg gesunken.*“ (IP5, 20, 50-51) [“ [...] and he suddenly maneuvered me with only two fingers. He put them someplace and I was really out of fit.”]. The lecturer thought that in third or fourth month something must have happened intrauterinely. IP5 asked his mother and found out what had really happened. He was astonished: „*Wo ich mir denk, wie hat der das jetzt gespürt?*“ (IP5, 21, 26) [“When I think how on earth could he have sensed that?”]. IP 5 considers this treatment as highly important.

To be treated during the osteopathic training gives the students useful ideas of an osteopathic treatment and its process. Furthermore they come into contact with the immense perceptual ability of the osteopath.

6.4.2.7 *Specific prior knowledge*

Two of the interviewees had prior knowledge concerning cranial techniques. IP7 has been already quoted in chapter 3.3.1.6. He had felt craniosacral mobility already once before the OT, which on the one hand was an advantage. On the other hand this knowledge was a disadvantage, because he „*schon etwas sehr Deutliches im Kopf gehabt hab, wie es sein könnte.*“ (IP7, 7, 35-41) [„had already had a clear idea in his head of how it could be like“]. Concerning sensing, this prior knowledge was a blockade for him. IP5 was shown craniosacral techniques by a colleague who teaches at the Upledger institute and was furthermore treated by her. This prior knowledge did not correspond with teachings in the OT.

„Also ein bisschen etwas hab ich gewusst, aber natürlich wird an der WSO etwas ganz anderes gelehrt als wie im Uppledger. Darum, nach wie vor, wenn ich mich mit ihr unterhalt, sprechen wir eine verkehrte Sprache. Nicht das gleiche, was ein großes Manko ist.“ (IP5, 8, 12-15) [“I mean I knew a little bit, but of course at the WSO other things are taught than at the Uppledger. This is why we still, if I talk to her, speak different languages. Not the same which is a deficiency.“]. Thus this knowledge was not supportive.

6.4.2.8 Summary: Knowledge

Knowledge takes a lot of space and significance in this master thesis. As can be read in chapter 4.3.2 dedicated to basics, according to Goldstein (2008) knowledge is any amount of information the perceiving person brings into a situation and influences the perceptual process. In chapter 3.3 dedicated to finger description it was explained that Sutherland demands of the osteopaths to contribute knowledge. Sutherlands *thinking fingers*, which can be interpreted as *knowing fingers* as well, stand for this knowledge: the cognitive, intuitive and personal knowledge. Sutherland demands to contribute mainly cognitive, conscious knowledge based on anatomy and physiology and further intuitive, unconscious knowledge. The personal knowledge, which can only arise by personally sensing lesions and release of lesions and which Sutherland acquired by self-examination, is not demanded, but seen as helpful.

The osteopaths, who on one hand nearly unanimously decided for knowing finger during the description of their fingers and on the other hand kept coming back to talking about knowledge during the interviews, give their points of view in this chapter.

An accordance with Sutherland becomes evident. Similarly to Sutherland, the knowledge contributed by the IPs can be categorized: 1. anatomic and physiological knowledge acquired by learning, 2. knowledge acquired by reading technical literature and furthermore, 3. intuitive knowledge, which stand for “knowing fingers”, according to the majority of the interviewed osteopaths and 4. “personal knowledge”, experienced by treatments where the osteopath was the patient himself. Only the second knowing, the knowledge acquired by reading technical literature, is not described by Sutherland, in the author’s opinion – no corresponding passage could be found, which could be due to the fact that hardly any osteopathic literature existed at that time.

Furthermore it can be observed, that the knowledge contributed by the osteopaths can be described scientifically using the words of Goldstein (2008). Osteopaths chiefly contribute knowledge which they acquired “previously” – days, months or “*Jahre zuvor erworben*“

(Goldstein, 2008, 8).[“acquired years before”]. We are talking about knowledge from class, like anatomy, physiology, among others. On the other hand, Goldstein (2008, 8) talks about “*Wissen, das gerade vorher erworben wurde*“ [“knowledge acquired immediately before“] – compare the example about the “Rat-Man-Picture” in the chapter dedicated to basics. In the author’s opinion it is imaginable, that osteopaths contribute this knowledge, but this is no subject in this master thesis.

The osteopaths’ perception is as much a „*bottom-up-processing*“, because it is stimulus-controlled and based on incoming data, as a “*top-down-processing*”, a “knowledge-based processing.” (Goldstein, 2008, 8)

6.4.3 Personal condition of the osteopath

Interviewees 1,2,3,4,5 and 7 make the following statements concerning this aspect.

What can osteopaths personally do with themselves in order to learn better how to feel and how to perceive? That it is important to do something seems to be unquestionable, according to interviewee 2 who says, „*dass sein Körper und sein Befinden das Instrument sind, also der Maßstab für das, wie gut er spüren kann. Und wie gut er wahrnehmen kann.*“ (IP2, 8, 5)

[“that his body and his condition are the instrument, I means, the parameter for how well he is able to sense. And how well he is able to perceive.”]

In this chapter some measures necessary for “body and condition” are described.

6.4.3.1 Health care

Due to the reasons mentioned above it has become important for IP2, already during the OT and in particular afterwards to work on himself. From the following words his point of view and a certain criticism concerning the training phase become apparent:

„Und das ist, also der Kritikpunkt an der Ausbildung, wo ich so das Gefühl hab, die Arbeit mit einem selbst kommt zu kurz. Das heißt, für mich ist es im Lauf der Jahre immer wichtiger oder immer offensichtlicher geworden, dass es ganz wichtig ist, wie zentriert bin ich, wie geht es mir, um zu spüren und zu behandeln. Und ... ich hab keinen Vorschlag, wie man es anders machen könnte. Aber, also ich glaub, dass es wichtiger wäre, besser bei sich zu sein, um das spüren, um das Vertrauen auch das, was ich spür. Na. Sie [die Cranio-Vortragende] hat’s zwar immer wieder probiert, durch so kleine Meditationen. Aber das ist einfach der Rahmen dazu.“ (IP2, 4, 29-45)

[“And this is, well, a point of criticism concerning the training, where I have the feeling that the work on myself gets a raw deal. That means for me it has become more

and more important over the years, or it has become ever more obvious that for me it is really important how centered I am, how I feel, in order to sense and to treat. And... I have no suggestion of how it could be done any better. But I think that it would be more important to be nearer to myself, in order to feel, for the confidence of what I feel. Right. She [the cranio-lecturer] has tried sometimes by means of such little mediations. But that is simply the frame for it.”]

And he continues:

„Also das sind zwei so, also man kann nicht gut spüren, wenn man nicht gut bei sich ist und nicht gut geerdet ist.“ (IP2, 8, 25-27)

[“Well that are two such, I mean you cannot really sense well if you are not near to yourself and if you are not grounded well.”]

To work on oneself means in his case to care for one’s own well-being and to be centered and well grounded. Centering and grounding are fostered by means of, e.g. meditation, which is partly offered during the OT. (Turner und Nusselein, 1997-2000)

Dunshirn (2006, 164) comes to the same conclusion that regular meditations are useful for osteopaths, in her case for midline osteopaths. “Useful” because they can lead the osteopath to a “calm spirit”. Thereby she refers to the osteopaths she had interviewed and to Fulford who confirms this idea in his book „Puls des Lebens“ [“Pulse of life”], in which he dedicates one chapter to meditation. *„Wenn mich die Leute fragen, ob ich noch andere Geheimnisse kenne, um einen guten Gesundheitszustand zu erlangen, sage ich ihnen, ich kenne eins: ein ruhiger Geist. Diejenigen, die immer noch interessiert sind, fragen dann wie man den Geist dazu bringen kann, ruhig zu sein. Die Antwort darauf ist Meditation.“* (Fulford, 2005, 115) [“If people ask me whether I know any further secrets for reaching a good state of health, I tell them that I know only one: a calm spirit. And to those, who are still interested and ask how one can achieve such a calm spirit I use to say: the answer is meditation.”] Another chapter is dedicated to health care and is entitled *„Pass gut auf Dich auf!“* (Fulford, 2005, 85) [“Take good care for yourself!”] *„Ein Ort, mit dessen Berücksichtigung du beginnen könntest, ist der Blick in Dich selbst hinein. Dort findest du möglicherweise mehr Hilfe, als Du Dir jemals vorgestellt hast“* (Fulford, 2005, 85) [“One place you could take into consideration is looking inside yourself. Probably there you will find more help than you have ever imagined.”].

IP1 has got similar thoughts. For him health care is the most efficient method in order to further develop sensing and perception. *„[...] wenn ich mich stabil oder wenn ich einfach, wenn ich mich gesund fühle und kraftvoll fühle, dann passieren diese Dinge. Diese Lernschritte. Das heißt, das was für mich zunehmend wichtig geworden ist, ist darauf zu*

achten, dass es mir gut geht (lachen)“ (IP1, 12,31-38) [“ [...] when I feel stable or, simply when I feel good and when I feel powerful, then those things happen. These steps in learning. That means what has become more and more important for me is to take care for myself (laughs)”].

IP4 and 5 affirm as well that they always try to get centered and grounded.

6.4.3.2 *Personal way of healing*

IP4 talks about his development concerning his entire personality in and with osteopathy. In his opinion osteopathy advances into a much more subtle and healing area than physiotherapy, which fosters his development. Furthermore he explains what this has to do with perception:

„Ja schon. Ja schon. Meine eigenen Entwicklungs- ah –prozesse haben die Entwicklung meiner Wahrnehmung ah verändert. Ja. Das, was ich in mir entwickelt hab, konnt ich auch beim Patienten wahrnehmen. Z.B. war, was ich gelernt hab, war, dass die, - ich hab sehr viel im systemischen Bereich gearbeitet an mir in meinem Familiensystem. Seit ich das in meinen Familien dabei bin aufzulösen, ist schon fast erledigt – ah kann ich das System in meinen Patienten wahrnehmen. Mit Unterstützung vom Vortragenden der Biodynamik. Der dann so klar sagt: So und so könnt ihr die Systeme wahrnehmen. Und wenn ich das in mir ah entwickelt und aufgelöst hab, dann nehm ich es eben wahr im Patienten. Und das, was ich wahrnehmen kann im Patienten, kann sich dort auch harmonisieren oder heilen. Ja.
(IP4, 12, 39-50 und 13,1-14)

Autorin: Was wäre das beste Wort für das, was du mir da jetzt beschrieben hast?

„Meinen eigenen Heilweg.“

„Mh. Und das muss, also was ich dem Patienten dadurch beschenke insofern, dass sie, dass ich meine Heilwege sehr bewusst mache und bei Patienten muss es nicht mehr so bewusst ablaufen wie bei mir.“ (13,24 -34)

[“Yes, yes of course. My own process, ah, process of development has changed the development of my perception. Yes, I could perceive on patients what I have developed inside myself. For example what I have learned that the, I have worked a lot in the systemic field, on me and my family system. Since I’m solving that with my family, it’ nearly done – ah, I can perceive the system in my patients. With the support of the biodynamics lecturer. Who says clearly: this and that way you can perceive the systems. An when I have developed that inside of me, when I have solved that, then I

can perceive it in the patients. And what I can perceive in the patient can be harmonised or cured there. Yes.”

Author: “And what would be the best word for what you’ve described just now?”

IP: “My own way of healing.” “Mh. And that has to be, I mean what I’m giving to the patients is that I’m trying to be aware of my healing processes. And in the patients it doesn’t have to happen that consciously.”]

Basically this is some kind of knowledge that IP4 brings in here. It is some kind of expanded knowledge about the family system that makes its perception possible. Additionally one could conclude from this utterance that it is not only knowledge that leads to perception but that the osteopath has to be healthy in the sense of “whole” in order to be able to perceive certain things at all. In combination these two aspects lead to an easier healing of the patient.

IP4 has explained that in very much detail and IP2 agrees by stating that *„die Arbeit an sich selbst, Prozesse und Therapien“* (IP2, 12, 39-40) [“the work on oneself, the processes and therapies”] are highly important for him. While training in Germany IP2 has found further support: *„Die Bewusstheit in meinen Händen“* [“the consciousness in my hands“] with Uta Marie Reinbach. Reinbach’s thoughts are reminiscent of IP4 who proceeds from the idea that whatever has developed inside of him and whatever he had solved for himself is what he can perceive in his patients, too: *„Heilerin zu sein bedeutet für mich auch, ständig an mir selbst zu arbeiten. Ich kann in meinem Gegenüber nur öffnen, was in mir selbst geöffnet, am Bewusstsein und integriert ist.“* (Reinbach, 2008, <http://www.heilhaende.de/index.html>)

[“For me being a healer means to constantly work on myself, too. I can only open in my counterpart what is open inside myself, what is conscious and integrated.”]

6.4.3.3 Present condition

Does, and if yes, how does the osteopath’s present condition influence his sensuous ability? In the following IP7 expresses what he thinks about this topic:

„Spüren etwas ist, das wir ja sicher alle haben. Das man lernt, zu ..., das sich im Rahmen der Ausbildung oder der Jahre des Arbeitens verbessert. Und das man aber sehr wohl hat oder nicht hat und es aber auch bestimmen kann. Wenn ich schlecht drauf bin und mich nicht bemühe, kann ich nicht gut arbeiten. Das weiß ich. Wenn ich aufmerksam bin und es zulasse, bin ich jemand, der, denke ich, gut arbeitet.

Es muss mir jetzt nicht unbedingt gut gehen, aber ich denke mir, ich bin automatisch aufmerksamer, wenn es mir gut geht. Sonst muss ich mich natürlich zwingen, weil mir geht es auch nicht jeden Tag gut. Es ist nicht immer lustig, jeden Tag in der Früh,

oder wenn ich weiß, ich habe 12 Leute und hab Kopfweg, dann ist es nicht lustig. Aber dann geht es trotzdem.“ (IP7, 18, 26-46)

[“Sensing is something that we all have. That one learns to..., but that improves in training and over the course of the years of working. And that you have got or you haven’t got but that you can influence as well. When I have a bad day or I don’t try hard, I cannot really work well. I know that. If I’m alert and allow it, I think, I am somebody who works well. I mean I don’t always have to feel good, but I think I’m automatically more attentive when I feel good. Otherwise I have to force myself, because I don’t feel good every day. It’s not always fun, everyday in the morning or when I know I have twelve patients that day when I have a headache, then it’s no fun. But it still works.”]

All people have the sensorium to feel. However, osteopaths improve it during their training. But if someone is more talented and the other has to practice more - *„das man aber sehr wohl hat oder nicht hat“* [“and that you have got or you haven’t got”] shall be discussed in more detail in chapter 6.4.9. That sensing and perceiving is sometimes easier and sometimes harder may depend, according to IP7, on the osteopath’s present condition. There are “bad days” without any reason and there are some which are bad for a certain reason, may it be an emotional reason, tiredness, physical pain or anything else. Provided with a bad condition it is certainly harder to be attentive and one has to *„bemühen“* [“try harder”] or even to *„muss ich mich zwingen“* [“have to force my[one-]self”].

In the chapter on attentiveness was defined as being the main mechanism for perception. It is a primary mechanism for concentrating on certain important things. It requires selective, i.e. directed attention if specific details of a scenery and the details of specific objects have to be recognised. Attention is like glue. *„Aufmerksamkeit kombiniert oder `bindet` die Objektmerkmale zu einer kohärenten Wahrnehmung des Objekts“* (Goldstein, 2008, 145) [“Attention combines or ‘binds’ the different features of the object to a coherent perception of the object.”]. Thus attention is crucial for the “perceiving osteopath” – how else shall he be able to sense and judge the different tissues and structures?

His present condition influences the osteopath in such a way as it alleviates or impedes his perceptual process.

Furthermore IP3 points out that it can also change perception qualitatively:

„Ahm, dann kann ich mich auch eine Übung auch erinnern während der Kinderausbildung, wo es dann auch einfach darum gegangen ist nicht nur hart oder weich sondern auch, dass vielleicht einmal irgendwelche Töne kommen. Weil ich taste

oder dass ein Geruch oder Geschmack auftaucht ahm, oder eine Farbe. Und das ist, das ist dann ganz unterschiedlich. Das ist auch tageweise. Manchmal kommen Farben, manchmal kommt irgendeine Musik, ahm von dem, wie sich das halt anfühlt.“(IP3, 10, 46-51)

[“Ahm, I can also remember an exercise we took during we learned how to treat children and here the point was not only to tell whether it felt hard or soft but we should also try to feel notes. Sometime a smell or taste or even colours occur because I touch somebody. And that is very different every time. It’s also on a daily basis. From time to time I can see colours, sometimes I hear music and this is up to what I feel.”]

Osteopaths sense the tissue and describe the condition in which the tissue is. Therefore they use many adjectives that can be associated with the different senses. IP3 points to such a kind of description by saying that it feels differently on a “daily basis”.

6.4.3.4 Personal preparation

IP2 uses the metaphor “tool” for the osteopath, respectively for the osteopath’s body. The author considers this picture very beautiful and harmonious. The perceptual ability depends from the status of the tool. Metaphorically speaking the previously described points “health care, personal way of healing and present condition” are the care and maintenance, whereas the “personal preparation” is the tuning of the instrument.

Which preparation, which facilitates feeling to them, do the IPs talk about? These are: 1. grounding and centering themselves, 2. relaxing and opening their hearts and 3. Being passive.

1. Grounding and centering are essential parts of health care, as described before, but are concretely used as a preparation for feeling for the therapeutic situation by IP2, 4 and 5.

2. IP5 opens his heart to be able to perceive better:

„Vor allem, wie ich am Patienten loslasse, quasi. Und ich glaub, das das da war, dass mir da das irgendwer gesagt hat, dass ich mein, mein Herz aufmachen soll. Wenn ich mir denk, so jetzt lehn ich mich zurück und jetzt mach ich mein Herz auf, frag mich nicht, wie ich mein Herz aufmache, ich kann es dir nicht sagen. Das geht nicht. Und seltsamerweise kommt dann, da kommt so eine Reihenfolge irgendwie. Und dann weiß ich genau, was zu machen ist. Als wie wenn ich angeleitet werde.“ (IP5, 10, 47-50)

[“Especially how I let go while with a patient, quasi. And I think, that there was, that someone told me that, that I should open my, my heart. When I think, now I’m laying back and now I’m opening my heart, don’t ask me, how I open my heart, I can’t tell

you. That doesn't work. And strangely enough, somehow a sequence manifests itself.

And then I know exactly what to do. As if I was somehow guided.“]

IP5 gets himself into a state of relaxation and openness for information from the patient, which arrives automatically, according to himself. In another passage he explains, that by opening his heart his hands also open themselves. IP5 can't say how he opens his heart, but is is a great support.

Even Becker was once asked by a patient: „*Sie fühlen mit dem Herzen, nicht wahr?*“ (Becker, 2004, 22) [“You're feeling with your heart, don't you?”] He confirmed it. Milne (1999) wrote a book about craniosacral work with the title “Aus der Mitte des Herzens lauschen” – “Listening from the centre of the heart” and answers the question what the heart is about.

„`Heart` (Herz) enthält vier Wörter: Ear (Ohr), Hear (hören), Heat (Hitze) und Art (Kunst). `Aus der Mitte des Herzens lauschen` verlangt von uns, dass wir nicht nur ein Ohr haben, sondern mit unserem ganzen Wesen hören; es ist Energiearbeit, und die Hitze in den Händen einer Heilerin ist eine mächtige Form von Energie. Mit realen, ganzen Menschen zu arbeiten ist ein heißblütiges Unterfangen, das heißt, es ist vor allem anderen, eine Kunst.

Wahrnehmung ist der visuelle, äußere Anteil der Intuition, Einsicht ist der kontemplative, innere Anteil der Intuition. Es ist `Ein-Sicht`; es ist das innere Sehen des Selbst und des anderen. Ein visionärer Mensch ist jemand, der dem vertraut, was er außen wahrnimmt und was er innen fühlt, und beides gleichermaßen achtet. Viele Menschen können der Teile gewahr sein; andere können das ganze im Bewusstsein halten; doch sehr wenige Menschen können der Teile und des Ganzen gewahr sein.“ (Milne, 1999, 7)

[“‘Heart’ contains four words; Ear, Hear, Heat and Art. ‘Listening from the centre of the heart’ requires us to not only to have an ear, but to listen with all of our being; it is energetic work, and the heat in the hands of a healer is a potent form of energy. Working with real, whole people is a hot-blooded job, is means, it is above all an art. Perception is the visual, exterior part of intuition, insight is the contemplative, inner part of intuition. It is ‘in-sight’; it is the inner sight of the self and the others. A visionary person is someone, who trusts what he perceives from the outside and what he feels inside and pays attention to both equally. Many people notice the parts, others can keep the whole in mind, but only a few people can be aware of parts and the whole.”]

This quotation stands essentially for osteopathy. It shall be highlighted, that we “listen with our whole being”. Maybe this is what IP5 does when he opens his heart: not only feeling with his fingers, limited to the tactile sense, but sensing with his entire being.

3. “Being passive“ has a special meaning for IP6:

„Na, das, was ich hab schon lernen müssen, ist, sie [die Hände] passiv werden zu lassen. (Lachen). Also, einfach in die Perzeptionen zu gehen, war schon ein Lernprozess, weil ... ich eigentlich ja auch früher immer sehr viel geformt und gemacht habe und überhaupt wahnsinnig viel mache mit meinen Händen, und deshalb war es am Anfang schon schwierig, einfach wirklich der Versuchung zu widerstehen, einen Impuls irgendwie zu setzen, einfach wirklich wahrzunehmen und das habe ich lernen müssen. Aber das war eher, glaub ich, was im Kopf war. Also, ich hab den Kopf auch einfach zurücknehmen müssen, das Wollen von etwas.“

(IP6, 8, 46 und 9,1-7)

[“What I had to learn is letting my hands become passive.(laughs). Simply entering perception, was a learning process, because ... previously moulded and created and generally I do a lot of things with my hands and therefore at the beginning it was quite hard, resisting the temptation of setting an impulse, simply perceive and I had to learn that. But I think, that was rather something in my head. So I had to hold back my head, hold back wanting something.”]

IP6 describes passivity during perception – see passive touch in chapter 4.2.1 The perceiving person can act actively or passively. Due to his prior education, sculptury and medicine, IP6 was used to be active with his hands and now sees it as a challenge “let the hands become passive”, in order to sense better. IP5 explains in three words, what he does after his personal preparation: “dann wart ich.“ (IP5, 11, 47) [“then I’m waiting”] The IPs stress that they do not “search actively” for information from the tissue, but they wait for it to come.

6.4.3.5 Summary

From the IPs’ statements it can be observed that the perceptual ability and their developmental possibility depend very much from the condition and the state of the perceiving person, meaning the osteopath. The metaphor of the instrument shows that by care, maintenance and tuning a nice sound can be achieved. The interviewed osteopaths do this by caring for their health and stability by grounding, centering and meditation and by developing further on their own way of healing. The IPs are aware that their perceptual ability can fluctuate due to their present condition and mustering the necessary attention is easier or

harder. The personal preparations in the presence of the patient tune the osteopath for the perceptual process. These are grounding, relaxation, opening of all sensory channels, such as the heart according to IP5 and becoming passive.

6.4.4 Preparation of therapeutic situation

Additionally to the personal preparation of the osteopath, a preparation of the therapeutic situation by establishing a good contact with the patients seems to be of advantage. IP4 places value on establishing contact: He is convinced: *“Den Patienten in eine gute vertraute, in einen guten vertrauten Kontakt, einen entspannten vertrauten Kontakt [bringen]. Das ist es“*. (IP4, 15, 28-29) [“Bringing the patient into a good, familiar contact, in a relaxed, familiar contact. That’s it.“]. All six IP think that hand establish contact with the patient. They are *“das äußere Symbol der Kontaktaufnahme“* (IP1, 1, 11). [“the outer symbol of establishing contact.“] *„Die Hände sind die, die berühren“* (IP4, 6, 29-30). [“It is the hands that touch.“] IP5 considers it appropriate to establish direct contact via the hands as osteopathy is body work. It is for him the key to connect with the patient. IP7 considers this direct mechanic contact important, but points out that sensing is also possible without placing the hands somewhere. He refers to intuitive feeling, as described in chapter 6.4.2.4. IP3 considers the hands the “most important part”, which establish contact and which receives information. He thinks *“dass es für den Patienten ein Unterschied ist, ob er angegriffen wird oder ob irgendwer die Hände in der Per-, also irgendwo hat.“* (IP3, 14, 27) [“that it is a difference for the patient whether he is touched or if someone has his hand on the per-, well, somewhere.”] IP1 considers it an advantage to establish good contact, but also sees it as necessity to relax the tissue to enable it to give information:

„Na ja der erste Teil ist schon, dass der Patient von mir eine Information, die Information kriegt, dass er sich so entspannt und so wohl wie möglich fühlt. Das ist der erste Teil der Kommunikation. Also ich ... (lacht) ich glaub einer der wichtigsten Aspekte ist, den Körper oder das Gewebe überhaupt einmal da hin zu bringen, dass es diese Information überhaupt einmal geben kann. Und zwar nicht, nicht sozusagen dieser Wirbel, der die ganze Zeit so in unseren Geweben los ist, sondern so dieses wirklich zur Ruhe kommen und dann so auf einer sehr tiefen Ebene überhaupt mal ausdrücken zu können, was ist los mit mir. So, sagt das Gewebe. Also das ist, das ist schon eine, das ist eigentlich, na ja, das ist, ohne dem geht einmal gar nix. Also das ist schon sehr, sehr viel an Kommunikation, das da passiert, bis es einmal dort ist.“ (IP1, 18,21-50 und 19,1-2)

[“Well, the first part is already, that the patient receives the information from me, that he relaxes and feels as well as possible. That is the first part of communication. Well, I ... (laughs) I think that one of the most important aspects is to get the body and the tissue to be able to give this information. And not, as to say the mess, which takes place in our body, but really calming down and then being able to express on a very deep level what is going on with me. Like this, says the tissue. Well this is, actually, without that nothing is possible. A lot of communication happens until that becomes possible.”]

IP1 thinks here, that is not natural to receive information from the tissue. He sees the relaxation of the patient, respectively of the tissue as one of the main tasks of this osteopath in order to be able to start a treatment.

6.4.4.1 Summary

The necessity of a physical contact through the hands is described. From the statements of the IPs it shows that the patient, similarly to the osteopath in the previous chapter, has to be brought into a relaxed condition in order to make an interaction between the perceiving person and the person that should be perceived. IP1 expresses this his relaxed condition of both like this: *“Also, dass es keine Kraft braucht, dass es am besten ist, es wenn es total stimmig ist für beide, also wenn ich mich nicht anstrenge, der Patient es ganz fein hat, das am ehesten.”* (IP1, 7, 5-11) [“That no force is necessary, that it is best if it is perfectly harmonious for both, if I don’t push myself, the patient is entirely comfortable, that’s what’s best.”]

6.4.5 Personal attitude of the osteopath

In the previous chapter it was explained how the “condition of the osteopath” influences his ability to sense and perceive. Subjects like “health care”, “personality development”, “present condition” and “personal preparation” were dealt with. This chapter continues to deal with the osteopath: What can the osteopath himself do for his attitude in order to sense and perceive better? Staying with the metaphor of the instrument: The osteopath should not play the instrument with grimness, but with lightness – this is what IP2, 3, 4, 5, 6 and 7 say.

The keyword thereby is: “Not to want anything while feeling!”

A key experience by IP2 shows what this is about:

„Was da für mich so ein Schlüsselerlebnis war, ist: Das im Spüren nichts zu wollen. Also ... und die Erdung. Also das sind zwei so, also man kann nicht gut spüren, wenn

man nicht gut bei sich ist und nicht gut geerdet ist. Und man kann noch viel weniger spüren, wenn man das unbedingt will. [...]Es war klar beim Vortragenden der Biodynamik, weil es da ein Schlüsselerlebnis gegeben hat, dass ich so extrem Kopfweg gekriegt hab, dann eine Zeit. Weil ich so mit dem Wollen war. Irgendwo da in der Stille des Raumes in Zone D hinterm Horizont. (lachen) Und das hat dann so viel Druck im Kopf gemacht, dass ich genau erfahren hab, so kann das nicht funktionieren“ (IP2, 8, 23 -46)

[„A key experience for me was this: Not wanting anything while feeling. Well... and grounding. These are two things, well, one cannot sense well, if one doesn't feel well with oneself and if one is not grounded. And one can sense much less, if one tries too hard. [...] This became clear during a speech of the lecturer in biodynamics, because there was a key experience that I had strong headaches over a certain time. Because I tried too hard. Somewhere there in the quietness of space in zone D behind the horizon. (laughs) And that did a lot to the pressure inside my head, when I experienced, it cannot work like this.”]

This deals with “cognitively wanting something”. IP2 had the experience that he could sense a lot less if you wanted it really hard. “Wanting” created such pressure that he got headaches. The way out of this dilemma was the realisation that his body and his condition where the norm for the feeling ability – see chapter 6.4.3. The way out was “caring for himself”, respectively “health care” and “not wanting too hard”.

IP4 says instead of “not wanting too much while feeling” simply “*sich selber den Druck nehmen!*“ (IP4, 15, 24) [“to take away the pressure from oneself.”] He considers it equally important that one should not be pressurized by the patient to achieve quick improvement:

„Ich hab, ahm, Probleme hab ich mit Patienten, die auf mich versuchen, viel Druck auszuüben. Ja, dass was weitergeht und dass – ja – ich weiß nicht. Sie machen sich selbst Druck und mir Druck und da hab ich das Gefühl, die sind schwierig. Aber das ist auch eine Herausforderung. Also diesem Druck standzuhalten und sich nicht unter Druck setzen zu lassen.“ (IP4, 15, 33-41)

[“I have problems with patients who try to pressurise me. That something should be achieved and that – yes – I don't know. They pressurise themselves and myself and then I have the feeling that they are difficult. But that is also a challenge. Withstanding the pressure and don't letting oneself being pressurised.”]

Similarly to IP2, IP3, 6 and 7 see the head as the place where and through which pressure arises. Accordingly they express their opinion like this: “*Nicht so sehr im Kopf sondern beim*

Fühlen sein!“ [“Not keeping so much with the head, but keeping with feeling”] is what IP7 calls it. (IP7, 7, 49-51 und 8, 3) “*Den Kopf auch einfach zurücknehmen vom Wollen von etwas*“ (IP6, 9, 7) [“Holding back the head from wanting something.“] IP3 doesn’t listen to his mind’s doubt “*spür ich das, weil ich es spüren soll?*“ [“am I feeling that because I am supposed to feel it?”] but listens to his knowing fingers. (IP3, 13, 50-51 und 14, 1-6) “*Also, ich hab den Kopf auch einfach zurücknehmen müssen, das Wollen von etwas.*“ (IP6, 8, 46 und 9, 1-7) [“Well, I had to hold back my head, hold back wanting something.”]

IP5 doesn’t mention the head, but means the same: “*Während ich so, so versuch zu spüren, dann spür ich gar nichts.*“ (IP5, 10,4 2-43). [“When I’m trying to feel, I feel nothing.“] All this statements have in common that the head is held back in favour of the fingers. The fingers stand for feeling, for perception.

6.4.5.1 Summary

The interviewed osteopaths made the experience to liberate themselves from the pressure of “I have to feel”. Pressure from the osteopath himself and from the patients who want to feel success immediately, is obstructive from some. They overcome this obstacle if they liberate themselves from “voices in their heads” and approach perception with calmness.

6.4.6 Attention

For the following chapter compare 4.3.5.3 in the fundamentals, where attention is described as the main mechanism of perception (Goldstein, 2008, 135). During perception a selection has to take place, because our sensory system cannot process all information at once. The systems are designed to select only a small proportion of the information for processing and analysing. Via the „*selektive Aufmerksamkeit*“ (Goldstein, 2008, 132) [“selective attention”] the perceiving person focuses on specific things and ignores others. Focussed attention is required when specific details of a scenery and the details of specific objects should be recognized. If attention is directed to a certain spot of a certain object, the hereby triggered improvement of the information processing extends to the entire object. This “extending intensification” helps in detecting hidden objects. The consciousness extends through the object.

What does that mean for the perceiving osteopath? In Sutherland a passage can be found where he describes attention as essential: „*Diese lebendigen Vorgänge [im Inneren der Körpers] werden spürbar, wenn ihre Hände ruhig sind und Ihre Aufmerksamkeit darauf*

gerichtet ist, was es wahrzunehmen gilt.“ (Sutherland, 2004, I, 140) [“These living processes [inside the body] are palpable when your hands are calm and your attention is directed at what it is supposed to perceive.”] According to Sutherland, calm hands and a directed attention are necessary to be able to perceive movements respectively processes inside the patient’s body.

To Liem (1998) attention is even the most important thing: *„Insbesondere von Alan Becker [...] habe ich gelernt, dass das Wichtigste ist, mit sanfter Aufmerksamkeit zu warten, bis das Gewebe zu sprechen beginnt [...].“* (Liem, 1998, XIII)

[“Especially from Alan Becker [...] I have learned that the most important thing is to wait with soft attention for the tissue to begin to talk.”]

The osteopaths of the WSO are urged to direct their attention to different tissues, structures and levels whereby hands remain gently applied to the same spot on the outside. (Turner und Husselein, 1997-2000, text book)

During the interviews two IPs (1 and 7) speak about attention, whereby only IP7 directly uses the word “attention“. IP7 says that he does not only receive information from the patient’s tissue through his hands. Answering the question of the authors “how he receives additional information”, he says *„Ich würde sagen durch, über meine Aufmerksamkeit.“* (IP7, 18, 6) [“I would say through my attention.”] In his statement IP7 emphasises, much as Sutherland, the *hands* and *attention* – both are important for perception. IP1 doesn’t use the word attention, but refers to it. IP says that he uses his hands for establishing contact with his patients and applies them to different tissues. In order to retrieve information from the body *„was er denn jetzt möchte“* (IP1, 17, 32-33) [“what it would like to have“] IP1 says: *„Dass ich die Wahrnehmung halt unterschiedlich richte.“* (IP1, 17, 27-28) [“I direct my attention to different parts of the body.”]

Summarizingly it can be said that attention, which is essential for perception, has only been mentioned briefly by these two IPs - but they consider it important.

6.4.7 Measuring perception

According to Goldstein (2008) psychophysical measurements can be used to get an indication of what is happening inside a person. The psychophysical access to participation focuses on the relation between “physical characteristics of stimuli” and “perceptual responses to this stimuli”. There are many different ways to respond to a stimulus: describing, discovering, perceiving specifications, recognizing and searching. See chapter 4.3.4.

What does that mean for the perception training of osteopaths? It means that you can conclude to one’s “inner processes” meaning his cognitive ability via this five measuring

methods. You can find references to all these methods and the results are described in the following part.

Within the next step meaning the following chapter, I will show that these methods form the basis to talk about and compare perception with others and this is a very good support for perception training.

6.4.7.1 Describing

Following Goldstein (2008) describing is “characterising the features of a stimulus”. On one hand the perception itself is described and on the other hand it is specified when a certain perception occurs. You call this “phenomenological method”. This method is a first step to explain fundamental characteristics.

In this present examination on perception training of osteopathic finger describing is very important. In this case the patient's body with all his different kinds of tissues is the stimulus. The osteopath is urged to perceive and describe those tissues. Describing the features provides a basis for diagnosis. It is also important to describe when a certain perception occurs since it marks for example the loosening of tissue during the therapy.

On one hand this chapter deals with adjectives – HOW? – and on the other hand with nouns - WHO? How does who feel to the touch?

„Die adjektivische Welt ist die einzige Welt, von der wir unmittelbar durch unsere Sinne erfahren; alle Sinnesdaten sind adjektivische; adjektivisch sind übrigens auch alle unsere seelischen Empfindungen, unsere Werturteile, alles was wir recht gut, schön usw. nennen.“

(Mauthe, 1997, I, 18 zitiert nach Wagner 2002, 6)

[“The adjective world is the only world that we can explore because of our senses; all sense-related data is adjective; even all our emotions, our value judgements, everything we call good, beautiful and so on is adjective.”]

The IP name the adjectives following: *„healthy, powerful, energetic, liquid, firm, salty, loud, hard, soft, tensed, not tensed, happy, sad, good supplied with blood, bad supplied with blood, good innervated, bad innervated, stressed, pulsating, tough, sticky“*

Sutherland calls the osteopathic education a *„Studium des ‚Erfühlen der Gewebe‘“* [“study of ‘sensing tissues’”]. (Sutherland, 2004, IV, 22) and he also adds examples to his quote: *„dry, pasty and loose.“*

Also remember Wagner, chapter 3.1, who compiled a list of 432 adjectives to sum up the connection between perception and language:

„Die Sprache dieser osteopathischen Wahrnehmung muss die Sprache der Eigenschaften sein, denn was wir mit unseren Sinnen erfahren, ist zuerst das Wie, das Adjektiv, und nicht das Was, also das Substantiv oder gar eine Tätigkeit, also das Verb. [...] Und wir nehmen Qualität ja auch mit unserem vielfältigsten Sinnesorgan, der Haut, wahr. Wobei ich davon ausgehe, dass Wahrnehmung die Bewusstwerdung des Gespürten, mit den Sinnen Wahrgenommen, ist. Die wahrgenommene Sinnesempfindung ist also, weil bewusst, in Sprache umsetzbar.“ (Wagner, 2002, 6-7)

[“The language of this osteopathic perception has to be the language of characteristics because what we perceive is first of all always the “How” i.e. the adjective and not the “What” i.e. the substantive or even an action i.e. the verb. [...] And we also perceive quality by means of our most manifold sense organ, the skin. Whereas I assume that perception is the mental manifestation of sensation via senses. This means the perceived sensation can be transformed into language since it happens deliberately.”]

There is another peculiarity concerning the utilized adjectives: they are characteristics not only used in connection with tactile sense although information is communicated via hands – at least in general! *„Die Hände sind ... einfach der Teil, wo der größte Teil an Informationen zu mir kommt.“ (IP1, 17, 32-33)* [“Hands are...just the part from where I get the majority of information”] is also confirmed by IP1. Nevertheless there are adjectives like “salty” which are allocated to taste or “loud” to the aural sense and “bright” to the sense of sight and for example “sad”, that is an emotional adjective. IP3 remembers a certain exercise:

„Ahm, dann kann ich mich auch eine Übung auch erinnern während der Kinderausbildung, wo es dann auch einfach darum gegangen ist nicht nur hart oder weich sondern auch, dass vielleicht einmal irgendwelche Töne kommen. Weil ich taste oder dass ein Geruch oder Geschmack auftaucht ahm, oder eine Farbe. Und das ist, das ist dann ganz unterschiedlich. Das ist auch tageweise. Manchmal kommen Farben, manchmal kommt irgendeine Musik, ahm von dem, wie sich das halt anfühlt. [...]Also es ist, es kommt eine Vielfalt an Informationen aus dem Gewebe zurück auf verschiedensten Ebenen.“ (IP3, 10, 44-51 und-1, 11-9)

[“Ahm, I can also remember an exercise we took during we learned how to treat children and here the point was not only to tell whether it felt hard or soft but we should also try to feel notes. Sometime a smell or taste or even colours occur because I touch somebody. And that is very different every time. It also depends on the daily basis. From time to time I can see colours, sometimes I hear music and this is up to

what I feel. [...] There is a kind of diversity of information appearing from the tissue back to different levels.”]

This phenomenon is called “synaesthesia”. What IP3 said is very similar to what Villoldo words:

„Um die natürliche Wahrnehmung zu trainieren, haben die Schamanen eine Art `Allgemeinsinn` entwickelt, der all die unterschiedlichen Sinne miteinander verbindet. Dadurch sind sie in der Lage, Feuer zu schmecken, den Duft einer Blume zu berühren und ein Bild zu riechen. Sie empfangen eine unmittelbare Wahrnehmung, bevor eine bestimmte Erfahrung den Sinneseindruck in einzelne Sinne aufteilt. Dieses Phänomen ist als Synästhesie bekannt. Die Vermischung sensorischer Empfindungen wirkt nur auf diejenigen fremd, der sich schon von der ursprünglichen, unmittelbaren Erfahrung der natürlichen Welt abgeschnitten hat.“ (Villoldo, 2001, 158-159)

[“To train the natural perception shamans have developed a kind of ‘general sense’ which connects all senses. Thus they are able to taste fire, to touch the scent of a flower and to smell a picture. They receive an immediate perception before a certain experience divides the sensation into the different kinds of senses. This phenomenon is known as synaesthesia. The mixture of sensorial perception is only strange for those who have already separated themselves from the original, immediate experience of the natural world.”]

The philosopher Maurice Merleau-Ponty writes in his work *Phenomenology of Perception* also about synaesthesia:

„Die synästhetische Wahrnehmung ist vielmehr die Regel, und wenn wir uns dessen selten bewusst sind, so weil das Wissen der Wissenschaft unsere Erfahrung verschoben hat und wir zu sehen, zu hören und überhaupt zu empfinden verlernt haben, vielmehr aus der Organisation unseres Körpers und der Welt, so wie die Physik sie auffasst, deduziert, was wir sehen, hören und empfinden müssen.“

(Merleau-Ponty quoted by Villoldo, 2001, 159)

[“The synaesthetic perception is more or less standard and we are aware of this fact rarely since the knowledge of science disarranged our experience and we have forgotten how to see, to hear and to feel in general and that physics with its conception of the organisation of our body deduces how we have to sense.”]

Synaesthesia seems to be the “magic word” to describe this phenomenon and also explains what IP6 said: „[...] da sind unsere Finger, die haben also diese Fähigkeit zu spüren, zu

riechen, zu hören und zu schmecken, und das nehmen wir irgendwie auf und diese Info kommt irgendwie in unser Hirn (IP6, 10, 46-48) [“[...] : there are our fingers and they have the ability to feel, to smell, to hear and to taste and we kind of gather this information and transfer it into our brain.”]

Could you claim that osteopaths return during the perception training back to an “original, immediate perception” on the basis of this explanations?

6.4.7.2 *Excursus about Sensing*

The author wants to insert a “small excursus” at this point. From the qualities of tissue, which are described by means of adjectives to the variety of adjectives that can be assigned to different senses, she ends up to a highly important question: how and wherewith are those different qualities perceived? Are we still talking about tactile sense, about hands, about skin in general? Which sense is it?

In chapter 6.1.2 it has already been mentioned that several IP evaluate other senses in addition to the tactile sense are “getting more important” since they are instructing their fingers during perception training in OT. All of the six IP have more or less the same point of view. *„Ich hab nicht so das Gefühl, dass die Hände jetzt nur mehr spüren, sondern es sind andere Sinne dazugekommen, die Teile übernehmen.* (IP2, 1, 6-12) [“I do not feel that my hands are becoming more sensitive but other senses came up and took over some parts.”]. For IP2 it is no longer limited to the hands. The *„Aspekt des Sehens“* [“Aspect of seeing”] came up which means a patients tension became visible and also *„Spüren mit dem ganzen Körper“* [“feeling with the entire body”] came up (IP2, 13, 20 und 12). IP2 is the only one who names a singular other sense, seeing. IP3 talks about a “holistic perception idea”, whereat “visualisation” plays an important role but this does not correlate with “real seeing” described by IP2. All of the others name similar words like the “body” (IP2): *„mit dem ganzen Sein“* [“with the whole being”] (IP4, 6, 19), or *„mit dem Rest des Körpers Schwingungen aufnehmen“* [“to receive vibrations with the rest of the body”] (IP5, 16, 47-48). IP7 answers “attention” when asked with which sensory organ he gathers information from his patient but he cannot concretizes his statement: *„Aber, ... welcher Teil von mir das ist, der das spürt ... ich mein, ich weiß es nicht. Das kann ich nicht sagen.“* [“But...I cannot really tell which part of my body senses this...I mean, I do not know. I really cannot tell.”] (IP7, 18, 6-11). Also Sutherland talks about several senses: *„Es dauert Stunden, Tage Wochen und Jahre, um die Hände, Augen, Ohren und den Geist des Behandlers derart zu schulen.“* [“It takes hours, days, weeks and years to train hands, eyes, ears and mind of the therapist to this extent.”] (Sutherland, 2004, II, X)

IP1 gets to the point by using the word “sensing”:

„Ich hab auch nur das englische Wort `sense`, `sensing` dafür. Also es ist, es ist was Passives. Also ich gehe nicht mehr in die Gewebe hinein, sondern ich versuche eine Ausgangsposition zu finden, wo die Information zu mir kommt. Aber sie kommt zu einem Großteil über die Hände.“ [“I suppose the English words ‘sense’ and ‘sensing’ are the only appropriate ones. I do not enter the tissue anymore but I try to search an initial point where information comes to me. But most of this information is received via hands.”] (IP1, 18 , 11-14)

Also Wagner talks about sensing. She calls her work a *„Besprechung von Berührung, der osteopathischen Berührung, wo die Hände spüren, wo Sensing also das Erfassen von Gewebequalität zugrundeliegendes Thema ist.“* [“a kind of conference of touching, of osteopathic touching where hands can feel which means that the sensing, the comprising of the quality of tissue is the most important issue.”] (Wagner, 2002, 2). Wagner calls the “description of quality” a perception via tactile sense whereby in this case it is realized in terms of feeling, of sensing. Wagner does not define sensing accurately. In the following statement it refers to Gibson, 1973:

„Es ist eine Kunst die Osteopathen entwickeln, ja lernen. Lernen, ohne, dass sie explizit unterrichtet wird. Eine Gabe, die wieder-entsteht. Wenn wir spüren, den Tastsinn im Sinne von Sensing einsetzen, dann nehmen wir mit all unseren Sinnen wahr. Welchen Sinnen dies folgt, ist unklar, welche Nerven welche Sinneseindrücke ist nicht erforscht. Eines nur weiß man: Mechanorezeptoren, Temperaturrezeptoren,... reichen nicht aus, im Tastsinn zu erklären.“

[“It is an art osteopaths develop, they have to learn. Learning without being taught explicitly. A gift that redevelops. When we are feeling, using our tactile sense in terms of sensing, then we perceive with all our senses. Which senses this follows is unknown, which nerves what kind of sensation transfers is unexplored. But we know one thing: mechanoreceptors, thermoreceptors,... are not enough to explain the tactile sense.”] (Wagner, 2002, 4)

Wagner calls the development of the skin as a fact that can explain the “diversity full of nuances” of perception whereby she refers to Montagu (1982).

„Die Haut entfaltet also eine Sensibilität, die ´die Sinnesorgane bilden Knoten, singuläre Orte, die sich wie ein Hochrelief über dieser vielgestaltigen Zeichnung erheben, spezialisierte Verdichtungen, Berg oder Tal oder Brunnen in einer Ebene. Sie

bewässern die gesamte Haut mit Begehren, mit Gehör, mit Sehvermögen, mit Geruch; die Haut fließt wie Wasser, variabler Zusammenfluß der Sinnesqualitäten.“

[“The skin displays a sensitivity, the sensory organs generate knobs, singular spots that rise like a high relief over this multiform picture, specialized compaction, mountain or valley or spring in a plain. They water the entire skin with desire, hearing, sight, smell: the skin flows like water, variable confluence of sensory qualities.”] (Serres, 1998, 61 quoted Wagner, 2002, 4)

Wagner supposes that all sensations are recorded in a network similar to the brain that has steady plastic forming concerning nervous contacts and according to Wagner this means that the tactile sense has access to every other intersection. This way of sensing is more distinct when you are a child, an adult has to learn it with lots of effort.

And so we have come full circle. The author questions whether the osteopath regains a “original, immediate perception” because of perception training since he or she educates the fingers not only to feel but also to smell, to hear and to taste. – This question can clearly be affirmed. Osteopaths “become children” again as they relearn to feel and sense like children. *„einfach mehr darauf zu vertrauen, dass das Spüren eh da ist, das man das einfach nur wieder lernen muss.“* (IP7) [“you have to trust that this kind of sensing is still within you, you just have to relearn it.”].

Now we are returning to the chapter “describing” to go into detail regarding the substantives.

Substantives get characteristics assigned. They are the different tissues respectively structures and levels of the body. IP1 gathers information for example by means of *„Stoffwechsel, Dichte, über Zustand des Nervensystems, autonomes Nervensystem.“* (IP1, 17, 46-47) [“metabolism, density, condition of the nervous system, autonomous nervous system.”] IP3 recalls an exercise within the OT that showed those different levels:

„Oder, an das kann ich mich auch noch erinnern, wie, wie sozusagen das erste Mal die Aufgabe war, sich dann durch den Liquor durch wirklich an das zentrale Nervensystem zu tasten. Wo ich so wirklich das Gefühl gehabt hab so, ah, ja, so mit höchster Vorsicht und, dass sich dann aber trotzdem wieder anders angefühlt hat, als jetzt diese Flüssigkeit, durch die ich jetzt da durchgegangen bin, dass das dann wieder fester geworden ist, aber trotzdem sehr weich und sehr ah ... also an das kann ich mich auch noch sehr gut erinnern.“ (IP3, 9, 37-49)

[“What’s more, I can remember when we were supposed to approach the central nervous system whereby we should work through the liquor for the first time. I felt to work very cautious and what I sensed was different every time. I mean, I kind of walked through this liquor and sometimes it felt firmer but still very soft, yes, I can remember that still very clearly.”]

IP3 lists the levels of liquor and nervous system – WHO – and their characteristics: firm, very soft – HOW.

IP6 talks about the “classical structural levels” like bones, cerebral membranes and ventricles, fascia- and fluid levels.

6.4.7.3 *Discovering*

According to Goldstein (2008) discovering means: „to become aware of a hardly discoverable aspect of a stimulus.“ This relation between stimulus and perception is measured. How much (stimulus) energy is necessary to discover a stimulus? This method has been developed to measure absolute thresholds and differential thresholds.

What does that mean for osteopaths? There are hardly any sources for the chapter “discovering” within the interviews. The author wants to explain that on the basis of an example. IP1 says: „*Ich versuch herauszufinden ... was ist in diesen Geweben physiologisch, gesund, kraftvoll, vital... und was nicht.*“ (IP1, 17, 1-3) [“I can try to find out what is physiological, healthy, powerful, energetic within this tissue and what is not like that.”]

It is quite difficult to define the amount of stimulus energy that is necessary to discover the “healthy”. Perhaps it would be a possibility to measure the time for doing so? This would mean the absolute threshold needed fewest time to discover the “healthy”. But that is not what osteopathy is about according to the author. It is not about quantity, to discover as rapid as possible, the point is to discover unhurriedly and to describe it afterwards – see previous chapter. The “differential threshold” is the smallest difference between two stimuli that can be discovered by a person. That is not always easy to determine.

Later on in chapter “perception of specification” the main issue is perception of stimuli above threshold.

6.4.7.4 *Perception of specification*

According to Goldstein (2008) this means, „*Sich der Größe oder Intensität eines Stimulus bewusst zu sein.*“ [“the be aware of the extent and intensity of a stimulus.”]. It is about

valuing the extent of a stimulus. According to this principle a person has to assign the stimuli different numbers proportional to their perceived intensity. See chapter 4.3.4.4.

Normally you do not assign numbers within osteopathy but extent evaluation is common like the following words show: „*schlecht durchblutet, gut durchblutet, gut innerviert, schlecht innerviert*“ (IP7, 15, 39-41) [“bad blood supply, good blood supply, well innervated, badly innervated”] „*fester, sehr weich*“ (IP3, 9, 39-41) [“firmer, very soft”] *schön weich* (IP3, 10, 44-50) [“pleasurable soft”] „*Und nicht nur in hart und weich, sondern in verschiedensten Abstufungen.*“ (IP3, 11, 31-37) [“Not only hard and soft, there are many gradations in between.”].

Generally spoken the “extent” is expressed in words like “good, bad, very, pleasurable” and by using the comparative degree like “firmer” and the superlative e.g. “tensest” (example from author).

6.4.7.5 Search

In accordance with Goldstein (2008) this means, “to search for a certain kind of stimulus within a lot of different stimuli.”; see chapter 4.3.4.5. A person is requested to specify the difference between two kinds of stimuli.

IP1 gave an example therefore: „*Ich versuch herauszufinden ... was ist in diesen Geweben physiologisch, gesund, kraftvoll, vital... und was nicht.*“ (IP1, 17, 1-2) [“I can try to find out what is physiological, healthy, powerful, energetic within this tissue and what is not like that.”]

6.4.7.6 Recognition

„*Es ist das Einordnen eines Stimulus in eine bestimmte Kategorie. Wird ein Stimulus durch seine Benennung kategorisiert, so misst man in diesem Zusammenhang das Erkennen.*“ (Goldstein, 2008) [“It is assigning a stimulus to a certain category. If a stimulus is categorised because of its nomination, one can measure recognition in this regard.”]

IP2 explains arrestingly how important “categorization by means of nomination” is for him. Cognition and recognition is “the crucial point” for him in regard of perception training: „[...] *aber unterm Strich muss ich für mich einmal spüren: das ist Flüssigkeit und muss es als Flüssigkeit sehen, um dann die Flüssigkeit wieder zu erkennen. Und ich glaub, das ist ein Prozess, den man machen muss.* (IP2, 10, 15-20) [“...but summarisingly I have to feel: that is liquid and I have to see it as a liquid to recognize it. In my opinion that is a process you have to undergo.”] He is talking about a “very personal” process where you have to get into

perception, describe ones own perception, experience a lot and after all you have to compare the older and the new sensations to be able to categorize them. So first of all you have to compare your own perceptions before comparing them to perceptions of other people. This support from outside because of experience exchange is very important but the own development is even more essential since you gain trust partly because of your perception.

Also IP3 knows this categorization. He says that he „*dann eh eigentlich nur mehr zuordnen braucht.*“ (IP3, 11, 7) [“only has to assign”] the variety of information he gets from the tissue. IP7 describes this “assignment process” like this:

„Du hast das Gefühl, ah so ist das, das ist das. Jetzt versteh ich das. Das zu Spüren, wenn du es einmal gespürt hast, spüren wichtig, gespürt hast, kannst du das besser zuordnen und dann beim nächsten Mal, wenn du es wieder, wenn du weißt, aha, dann weißt du, jetzt bin ich richtig.“ (IP7, 9, 17-20) [“You have got the feeling that now you have got it. That moment you understand. If you really felt it one time you can categorise it easier and when you are sensing the next time, then you know, you are on the right track.”]

IP6 not only focuses on osteopathic perception training but refers to perception in general:

„Nein, was sehr, also, ich denke, dass die Hände so eine Art Gedächtnis bilden, ein Gedächtnis von wie die verschiedenen Dingen sich angreifen, und dann ist es halt oft ein Wiedererkennen, und da gibt's halt ein paar Dinge, die so irgendwie sehr herausstehen, um die herum sich dann andere gruppieren quasi, sensorische Empfindungen.[...]“. (IP6, 2, 46-51 und 3,1-3) [“I suppose that hands develop a kind of memory of how certain things feel like and often it is like recognition. There are some things that are very remarkable group around those things as it were sensations.”]

6.4.7.7 Summary

The phenomenological method “describing” plays a huge role within osteopathy. The “stimulus tissue” is particularly described via adjectives and substantives. In succession “synaesthesia” has been explained since the adjectives used can be assigned to the different sensory organs. Finally “sensing” shows the extended levels of perception of osteopaths.

It has been shown that “discovering” is not that important but the “perception of specification” is often used to evaluate the extent of a stimulus. The “search” indicates the osteopathic “look-out” for healthy respectively altered tissues. “Recognition” shows arrestingly the inner processes of a perceptive osteopath. First of all it is the very personal

process of categorization of stimuli and only later on you can talk with others about this issue – see the following chapter.

6.4.8 Communication and exchange

The just described methods “describing, discovering, perception of specifications, recognition and searching” are the base for the further communication about the perceived sensations. The quantitative and qualitative perceiving of tissues leads to learning processes. According to Wagner this means the perception of many different tissues and also “the search for varied qualities”. *„Aber die Bedeutung des Erfahrenen, die Diskussion des Erkannten, das Vergleichen von Erspürtem, das Austauschen von Wahrgenommenen, die Wortfindungssuche für Gefühltes – das alles können lehrbare Inhalte sein.“* (Wagner, 2002, 5) [“But the meaning of the experiences, the discussion about the identified qualities, the comparison and exchange of the sensations, the word-finding to describe the feelings – all of those issues are learnable.”] Thereby Wagner describes exactly the way the author sees as well. First perception and experiencing have to take place and afterwards there should be discussions and exchange. *„Hier vermitteltes Wissen und berichtete Erfahrungen sind mögliche Grundlage für Austausch und Weiterentwicklung dieser Fähigkeit, dieses Sensoriums“* (Wagner, 2002, 5) [“Knowledge and reported experiences are a potential base for exchange and development of this abilities, this sensorium.”]

This chapter is devoted to exchange about the perceived. Which significance has this exchange for the interviewed osteopaths? Who benefits from this communication? Is it a support for their perception training? To whom did they talk during the OT?

6.4.8.1 Communication more specifically

IP1 firstly names a reason why exchange is important:

„Ein anderer Punkt ist äh, Austausch. Über das was man wahrnimmt. ... Das verändert die Wahrnehmung auch. Die Kommunikation drüber. Und die Interpretation der Wahrnehmung. Und ... macht es auch, ... macht die Wahrnehmung auch feiner. Also für mich ist das OZK [OsteopathieZentrumKinder] eine, also wirklich eine unglaublich gute Möglichkeit des Weiterlernens, des immer feineren Spürens, einfach über diese Kommunikation, die da einfach möglich ist.“ (IP1, 13, 4-16) [“Another point is exchange. Communication also changes perception. It somehow also refines perception. For me the OZK is an especially useful opportunity for improvement, to refine sensing just because of communication which is possible.”]

Exchange alters perception, refines it and is a good opportunity for improvement. This means IP1 confirms the statement of Wagner regarding the furthering of the development of the sensorium. Only after the OT IP1 found this so called „Austauschraum“ [“room for exchange”] (IP1, 13, 21). IP2 also felt this “*wirkliche Veränderung*” [“concrete change”] meaning a great development of her perceptive abilities not until the OZK (IP2, 6, 11-13). But there were also possibilities to do so before and even a crucial experience took place before that:

„Ich glaub schon, dass die Vortragende der Cranio. Ich kann mich noch erinnern an die erste Supervision, die ich gemacht hab mit dieser Vortragenden. Die war sehr prägend. Das war Anfang 4. Jahr. Ja, ja. Das war nett, weil sie mit so einer, also ich voller Zweifel, einen Patienten behandelt, sie hat mit gespürt und hat mich da mit geführt, oder, es war mehr ein Miteinander und hat mir dann so wirklich das Gefühl gegeben, ich bin eh am richtigen Weg. Also das war ein sehr einschneidendes Erlebnis. (IP2, 7,23-32) [“I can remember the first supervision during the cranial schooling during the fourth year. This was very formative for me. I had to treat a patient and I was quite insecure and so the supervisor helped me, sensed together with me and it was rather a cooperation and I had the feeling to be on the right track. This was very crucial for me.”]

IP2 reports this incident after he confirmed that „*die Kommunikation über das, was man spürt.*“ [“communication about what one feels”] is important (IP2, 7, 13). On the contrary to IP1 who did not come up with the supervision because of the aspect of evaluation, for IP2 a supervision within the OT had been the suitable room for communication. Within his statement one can see the second reason why “exchange can be supportive”. It boosts the faith in ones own ability of perception. „*Genau, und mehr Selbstvertrauen in der Arbeit. Einfach mehr Vertrauen in das, was ich spür und was ich tu.*“ (IP2, 7, 40-41) [“Exactly, and more self-confidence concerning work. Simply more faith in what I am sensing and what I am doing.”] IP2 feels a good support in exchange but also remarks that exchange is “well and good” but the largest support you get from faith in the “personal process of recognition”. See chapter 6.4.7.6 above.

6.4.8.2 Communication in the broader sense - reflexions

IP1 and 2 comprehend when talking about exchange the concrete exchange about perception. IP4, 5, 6, and 7 also talk about exchange and mean on the one hand also this concrete dialog, on the other hand also communication about reflexions in general. Both are very significant.

IP7 had „*sein ganzes Arbeiten immer selber mit relativ wenig feed back mit anderen. Das hat ihn auch nicht so interessiert. Er wollte eigentlich immer seinen eigenen Weg gehen.*“ (IP7, 5, 18-21) [“most of the time very little feedback from others concerning his work. He was not that much interested in such things. He only wanted to do it his way.”]. Only a certain supervisor during cranial schooling, a superior with an osteopathical education and his best friend were communication partner. It really „*geholffen, mit denen auch zu sprechen.*“ (IP7, 5, 25-26) [“helped him to talk to them as well.”]. Exchange within a group never emerged for him. For IP1, 2, 4, and 6 exchange within the trainings group was very important.

More specific communication about perception and communication in a broader sense about general reflexions took place within the study groups and with single colleagues. It took place with “equals”, colleagues that were at the same OT level and also with “superiors” meaning lecturers. Within chapter 6.4.18 the role of the attendant persons is going to be outlined.

6.4.8.3 *Watching*

Another important aspect that belongs to exchange in a broader sense is “watching”. IP1, 2 and 7 descend to this issue. IP2 sees a chance for gaining more trust in her own perception ability in exchange as well as in watching:

„Genau, genau. Ahm. Also am ehesten glaub ich war wirklich der Austausch, der Austausch ein wesentlicher Aspekt. Was mir dann auch einfällt, so wie ich dann bei einer Kollegin gearbeitet hab, wo ich immer wieder bei ihr zugeschaut hab, sie bei mir zugeschaut hat. Wir auch zum Teil gemeinsam behandelt haben.“ (IP2, 6, 47-50) [“Exactly, I suppose exchange is an essential aspect. I can remember working with a colleague where I watched her and she watched me while treatments. Sometimes we applied treatments together.”]

IP7 watched the already mentioned superior and even travelled abroad to watch a lecturer. IP1 also considers “watching” lecturers as supportive insofar as he discovered aspects for himself while watching them perceiving and treating.

6.4.8.4 *Summary*

Communication is important for most of the interviewed osteopaths. Exchange about perception with using comparison and word finding offers an opportunity to develop perception and to further self-confidence. According to Wagner this exchange could be a “learnable aspect” of the osteopathic education. Pursuant to the IP this was not really possible

during OT but became more important within the osteopathic training for treating children. Furthermore reflexion and watching aids the development of perception.

6.4.9 Talent

„Meist wird angenommen, dass herausragende menschliche Leistungen auf der einen Seite auf einem Talent, das heißt auf einer besonders günstigen genetischen Veranlagung (englisch nature) und auf der anderen Seite auf konsequentem Training in einer günstigen Umgebung (englisch nurture) beruhen.“ (Altenmüller, 2005, 97) [“Mostly it is assumed that outstanding human achievements depend on talent on the one hand meaning a very beneficial genetic disposition (nature) and on consistent training within an advantageous surrounding (nurture) on the other hand.”]

Altenmüller refers to a psychological area of research that deals with the criteria to breed a prodigy. At this point it should be noted that osteopaths are normally not considered as prodigies (!) but still there is this question about nature and nurture. This question comes up every now and then when patients note : ”Do you need a certain gift for what you’re doing?” This sentence shows that sometimes patients are astonished because of the osteopaths abilities. According to many experiences most of the time they refer to craniosacral therapy since there is hardly any performing action visible are sensible and it resembles “lying hands on the sick” – and so this treatment is barely traceable.

How do osteopaths view this question about nature and nurture?

Here the answers concerning talent are reported and within the following chapter answers about training respectively practising.

While questioning IP1, 4, 5 and 7 talent becomes an issue. Addressing to the question “Do osteopaths need a certain talent?” IP1 is the only one who answers with a stern “no”. *„Nein, nein. Wir haben einfach das Sensorium dafür.“* (IP1, 19, 47) [“No, we just have the sensorium therefore.”] IP7 did not deny but describes it similar to IP1:

„Spüren etwas ist, das wir ja sicher alle haben. Das man lernt, zu ..., das sich im Rahmen der Ausbildung oder der Jahre des Arbeitens verbessert. Und das man aber sehr wohl hat oder nicht hat und es aber auch bestimmen kann. Wenn ich schlecht drauf bin und mich nicht bemühe, kann ich nicht gut arbeiten. Das weiß ich. Wenn ich aufmerksam bin und es zulasse, bin ich jemand, der, denke ich, gut arbeitet.“ (IP7, 18, 28-33) [“Sensing is an ability all of us have. This ability refines during education or years of practising. And one has that or he hasn’t and it is also something you can

influence. If I am in a bad mood and not trying hard enough, I cannot work well. I know that. If I am attentive and allow to let it in, I am working well I think.”]

Osteopaths all have the sensorium to sense and are able to develop it by means of education and he said. The abilities to perceive is naturally connected to the condition of the osteopath – more about this issue has already been mentioned in chapter 6.4.3. The part “*and one has that or he hasn’t*” is not very precise concerning the question about talent.

IP4 approves the question and explains it using a comparison with a piano player and so he tries to explain that in his opinion there are osteopaths with and without talent:

„Ja. Ja. Ich glaub so wie es bei einem Klavierspieler ah, ah ist, der also die, die, weiß ich, die Tonleitern übt. Und der eine bleibt bei den Tonleitern, und der andere wird Virtuose, setzt sich ans Klavier, ah verbindet sich mit Himmel und Erde und spielt. Ja. Und genau dasselbe glaube ich beim Osteopathen. Also entweder bleibst du bei so den Grund- ah -Strukturen oder du fangst an, einfach Kanal zu werden. Wenn du so willst.“ (IP4, 13,3 21-33) [“I suppose it is similar to a piano player practising scales. And one rests at the scales but the other one becomes a virtuoso, gets behind the piano, connects himself with heaven and earth and starts to play. And I think it is the same with osteopaths. Either you rest at the basis structures or you become a channel if you want to.”]

In his opinion it is possible to learn osteopathic techniques without talent but the talented osteopath is always superior.

IP5 also uses a comparison with a musician. He claims that an osteopath is like a violinist who knows after years of what to do to produce a beautiful sound. In addition to that a *„ein gewisses Talent oder Begabung mit dazu.“* (IP5, 7, 32) [“a certain talent of gift”] is necessary as well.

6.4.9.1 Family – “nature”

Feldman (1997), who is recited by Altenmüller and who dealt with research on prodigies, pointed out some characteristics that found during examination of 20 prodigies. He stated that *„Ausnahmeleistungen selten aus dem Nichts heraus auftreten, sondern dass meist eine Familiengeschichte von Interessen auf demselben Gebiet existiert.“* (Altenmüller, 2005, 96) [“extraordinary achievements seldom arise from nothing but most of the time you can already spot interests within the same area in family history.”]. Osteopaths are no prodigies – but the issue of genetic disposition respectively family history occurs within the interviews. Every IP except IP1 talks about family history. Parts of this have already been reported in chapter 6.2.

IP2 and 5 feel influenced because of the manual labour of their parents. IP2 talks a lot about manual work at the farm of his parents where hands have already been tools. IP5 emulated his dad who is carpenter and he loves to touch wood. Both of the IP early had intensive manual contact to hard materials. IP3 has a strong connection to his family, especially his father and grandmother. In chapter 6.1.4 his story is already mentioned. His father as well as his grandmother did not have all ten fingers for different reasons. IP3 views it as a privilege to be able to train the sensitivity of his fingers and to work with them.

IP4 describes what Feldmann (1997) calls “interests within the same area”:

„Ja, ich bin erblich belastet, weil mein Vater Arzt ist und er mit den Händen auch gearbeitet hat. Er, er ist Mayer-Arzt. Ja, also er hat also mit seinen Händen die Bäuche massiert und sehr viel erspürt. Und ich hab die Hände meines Vaters nach wie vor auch vor Augen, ja. [...] Es waren heilende Hände genauso, ja. [...] Die Hände waren für meinen Vater das wesentliche Werkzeug, weil er also, ah, praktischer Arzt war, aber mit seinen Händen nur gearbeitet hat. Er hat keine Geräte gehabt, er hat seine Hände gehabt. Ja, schon, das ist schon sehr prägend, ja.

Ja, und auch das Massieren und das Erfühlen schon in der Ausbildung. Das, ich hab einfach gespürt, dass die ah Menschen sehr entspannt reagieren auf meine Hände. Schon als Physiotherapeutin, ja. Indem ich, weiß ich, nur die Hand auf den Bauch gelegt hab, ja.“

(IP4, 2, 18-51 und 3, 4-25) [“Yes, I am hereditary loaded since my father is a medical and he already worked with his hands. He used the techniques of Dr. Mayer. He used to massage bellies and he sensed a lot. I still can see my fathers hands in front of me. [...] They were healing hands. [...] Hands have been the essential tools for my father and although he was a medical practitioner he only worked with his hands. He never used any tools, just his hands. That was quite formative. And also during my education I felt people reacted very relaxed towards my hands, already during my time as physiotherapist I could feel that for example when I only laid my hands on the patients belly.”]

In this case the same interests are healing with hands. Sometimes this “family interest” even continues to the next generation as the son of IP4 had similar experiences with his hands.

IP7 reports the opposite. There are *„lauter Rechtsanwälte in der Familie“* [“only lawyers in the family.”] and kiddingly adds: *„Das ist ein super Zugang zur Osteopathie.“* [“That’s a perfect access to osteopathy.”] Furthermore: *„Ich bin also ein Außenseiter und das macht mir Spaß.“* (IP7, 21, 3-11) [“This means I’m an outsider and I like it.”]

IP6 does not tell the story of her family but stresses the hands of her ancestors:

„Wenn man sich die, wenn man die Hände, wenn man sich an die Hände erinnert aus seiner Familie, Mutter, Vater, Großvater, Großmutter und so weiter, dann finde ich, das sollte man einmal machen, weil da gibt es ganz, ganz viel, was man dann in den eigenen Händen wieder findet und plötzlich ein Potential entdeckt, das man vielleicht noch gar nicht gekannt hat, nur wenn man sich einmal zum Beispiel auch diese Hand zu Hilfe holt. (IP6, 14, 47-50 und-15, 1-2) [“When you remember the hands of your family, your mother, your father, grandfather, grandmother and so on you can recognise a lot of them in your own hands. Perhaps you’ll discover a potential you weren’t aware of when you make use this “aspect” of your hand.”]

He does not use the word “interest” but “potential” meaning ability. How he makes use of this hand is still unexpressed.

6.4.9.2 Summary

Talent definitely is an issue for the IPs. It is an “especial genetic disposition (nature)” and spots in “interests within the same area in family history” in regard of what the IP said. All IP come relating to their feeling-fingers from very different familiar backgrounds except IP7 who has only lawyers inside the family and enjoys being an outsider. The reports go from healing, massaging hands of the father to the potential of the ancestors hands, from manual working parents to the importance of all ten fingers.

6.4.10 Training

„Practice makes perfect“ says a byword. Makes finger practice the osteopath perfect?

The desire to train hands respectively fingers concerning sensitivity is for many the decisive motivation to learn osteopathy. This has already been described in chapter 6.4.1. Even if this desire is primary not ruling at the beginning of the OT, finger training is one of the most essential factors during the education. Sutherland expresses it with similar words: *„Seine (des Arztes)berufliche Aufgabe im Weitesten Sinne ist eine Fingerübung.“* (Sutherland, 2004, IV, 24) [“The professional duty (of a doctor) is a finger training in the broadest sense.”] Furthermore Sutherland talks again and again of *„geschulten Fingern“* [“trained fingers”] and a *„geschulten Tastsinn“* [“trained tactile sense”] (Sutherland, 2004, II, 34) Sutherland often uses the term “tactile sense” which – as defined in chapter fundamentals – stands for surface sensibility. He uses the term proprioception, meaning deep sensibility, less often. Surface sensibility as well as deep sensibility are essential for osteopathic work. Some of the

osteopaths questioned point out that concerning their work they do not consider only tactile sense and proprioception as important but perception in general. IP3 uses the term „*Gesamtwahrnehmung*“ (IP3, 8, 48) [“holistic perception”]. Also Becker talks about several senses:

„Es dauert Stunden, Tage, Wochen und Jahre, um die Hände, Augen, Ohren und den Geist des Behandlers derart zu schulen. Und doch bildet es die Grundlage, um die osteopathische Wissenschaft, so wie sie von Andrew Taylor Still gelehrt wurde, in allen Einzelheiten zu verstehen.“ (Sutherland, 2004, II, x) [“It takes hours, days, weeks and years to train hands, eyes, ears and mind of the therapist to this extent. And still it is the basis to understand the osteopathic science in all its particulars as taught by Andrew Taylor Still.”]

Sutherland almost only talks about the tactile sense, other osteopaths also talk about several senses or holistic perception. Osteopathy is definitely about both of it. The different points of view of osteopaths whether they mainly use hands, fingers or many senses have already been discussed in chapter 6.4.7.2 “Sensing”. In this chapter the question about the significance of “training”, “practising” and “working” in regard of perception training shall be pursued. According to Becker this training takes years and pursuant to IP1 it is a „*Prozess, der einfach Gott sei Dank nie aus ist.*“ (IP1, 19, 39) [“that is never ending”]. Compare to chapter “never ending”.

Within the basics an experiment had been presented whereby the finger training lead to an enhancement of the cortical parts due to plasticity of the brain, where those fingers are represented. A frequent stimulation of oftentimes used parts of the body, like fingers in case of osteopaths, is verifiable within the brain. The region representing the hand with fingers in the somatic motor cortex is a priori disproportionately high and can enhance furthermore. IP3 expresses his thoughts concerning this issue:

„Wo ich mir auch denk ah, wenn ich jetzt an diesen Homunkulus denk, wo ja unsere Hände sowieso sehr groß sind, dann hab ich einfach das Gefühl, dass unsere, also meine und die meiner Kollegen mittlerweile wahrscheinlich doppelt so groß sind wie am Homunkulus verzeichnet einfach, einfach weil um so viel mehr, so viel mehr Eindrücke da kommen, als jetzt bei irgendjemandem, der mit dem überhaupt nichts zu tun hat.“ (IP3, 11, 21-26) [“When I think about this homunculus where hands are pictured very big, I’ve the feeling that our, meaning mine and the hands of my colleagues are at least double size because there is so much more sensation compared to somebody who has nothing to do with that.”]

Altenmüller describes brain activity after a few minutes of training via head diagram by using the example of musicians:

„Die Kopfdiagramme können eine Vorstellung geben, welche plastischen Anpassungsvorgänge in der Großhirnrinde schon nach wenigen Minuten Üben ablaufen. Sie zeigen aber auch, dass beim Klavierüben weitverzweigte Nervenzellnetzwerke unter Einbeziehung fast aller Großhirnstrukturen aktiviert werden.“ (Wehr et al, 2005, 104) [“Head diagrams can give an impression what plastic adaption processes go on within the cortex after a few minutes of training. They also show that during playing piano ramified neurone networks in concluding nearly every cerebrum structures are activated.”]

Of course, an osteopaths hands are very well trained, gather information and cause changes within the brain.

The following questions should be answered in this chapter: Which significance has training for the osteopaths questioned? How do they evaluate training during and transcription of abilities to the osteopathic everyday life? How are they training?

Two themes assert: 1. doing – transcribing – practising and 2. specific exercises within education.

6.4.10.1 Doing – transcribing- practising

Abilities can be trained and advanced via reiteration. Altenmüller calls „Lernen durch Tun“ [“learning by doing”] a „prozedurales Lernen“ [“procedural learning”] (Wehr et al, 2005, 98). Ayres talks about “learning because of repetition” and describes what happens there: a synapse that is in use becomes stronger and more effective. The frequent use of a synapse makes it better integrated whereas a seldom used synapse gets ineffective. Every time a nervous message transverses a synapse, something happens within the neurones and its synapses and so it gets easier for the next time a similar message transverses the synapse. So the usage of nervous energy is lowered. The repeated use of synapses creates our memory, it increases our abilities and in the end some processes take place automatically (Ayres, 2002, 81-82).

All of the seven IP agree that repetition respectively practice is important and essential. *„Und das ist eine Übungsfrage. Und es ist eine Frage wie viel verschiedene Menschen oder wie viel verschiedene Gewebe man unter den Händen gehabt hat. Aber das kann jeder lernen, der ein normales Sensorium, ein normal funktionierendes Sensorium hat.* (IP1, 20, 1-4) [“It is a question of training. And it is also important how many different people and different tissues

you have touched. But everyone can achieve that as far as he or she has a regularly working sensorium.”] IP1 talks about quantity – how many people – and about quality – different people. Also IP2 is of the opinion that you have to “do” something and that there is a difference „*ob man jetzt eben zehn Kinder gemeinsam behandelt, oder ob ich eine Übung mach.*“ (IP2, 6, 33-35) [“whether you have treated ten children together with somebody else or if I am only doing an exercise.”]. He states clearly: ten is more than one – to treat a lot is better – and treating is more efficient than practising. He also addresses treating together which is often used in osteopathic treatment for children and it is as well an issue within chapter “After the OT”. IP2 has reduced inputs from the outside, meaning new abilities from education, to practice „*im Kämmerlein*“ (IP2, 12, 17) [“within the chamber”]. Also IP4 stresses the qualitative variety: „*Unbedingt ja. Das ist, ja. Also mit jedem, also für mich ist jeder Patient ein Geschenk ah und ah, ... wenn ich an ihm was wieder erfahren darf, und es gleicht keiner dem anderen.*“ (IP4, 14, 43-45) [“In every case, yes. Every patient is a kind of gift for me since I can gain now experiences and nobody resembles anybody else.”] IP5 also confirms that it is a „*jahrelanges Üben*“ (IP5, 7, 28) [“long lasting ”] and „*ständiges Arbeiten*“ (IP5, 19, 16-17) [“steady working”]. Another crucial point approves him that that working and putting into is good: [...]*da hab ich nämlich in Graz, wie ich da in Kainbach gearbeitet hab, bin ich nicht weiter gekommen und dann hab ich, dann hab ich mir gedacht, so und jetzt mach ich halt eine Cranio beim, beim Patienten. Und auf einmal hab ich mir gedacht: pah! Das ist es jetzt, glaub ich.*“ (IP5, 8, 38-43) [“[...] once when I was working in Graz and Kainbach I could not move ahead in treatment and so I tried a cranial therapy. And suddenly I thought: yeah! That’s it!”]

IP7 uses arrestingly words to stress the transcription of new abilities: „*[...]. Nicht lange herumfackeln, sitzen, träumen, sondern arbeiten.*“ (IP7, 6, 24-27) [“Stop thinking, sitting, dreaming, get up and go to work.”] *Ah, ich denk mir das immer wieder regelmäßig dran gehen [...]* (IP7, 7, 49) [“I just think about simply doing from to time [...]”]

The author posed the question if he could do anything to push the perception training deliberately? „*Na, einfach arbeiten damit. Das ständig umsetzen, sofort umsetzen. Ich war einer, der, ich hab immer sofort die Sachen umgesetzt.* (IP7, 8, 20-25) [“No, just work with it. I always put new things into practice immediately.”]. IP7 fetches a new aspect as he underlines the “immediate putting into practice”. Also new osteopathic abilities from education were put into practice immediately and replaced physiotherapeutic techniques: „*Ich hab aus einer Physio-Stelle eine Osteopathie-Stelle damals gemacht.* (IP7, 8, 29) [“I change a physiotherapeutic point into an osteopathic point.”]. New techniques have been „*einfach*

verwendet, verwendet, verwendet bis es irgendwann ein Gesicht bekommen hat.“ (IP7, 8, 39-40) [“used again and again until it got a new look.”] „So wie ich immer bin: Tun! Behandeln, behandeln, behandeln!“ (IP7, 19, 49) [“That’s just how I am: Do! Treating, treating, treating!”] IP7 carried out the use of new techniques consistently and even tried controversial techniques like the very painful “tupaldos technique” on the patient immediately. It sometimes had these consequences: „Und das hab ich natürlich wie ich, wie ich halt bin, sofort angewendet, woraufhin der eine oder andere Patient nicht mehr zu mir gekommen ist. (IP7, 13, 1-2) [“And I immediately put that into, that’s just like I am and thereupon some patients stopped therapy.”] Like IP2, IP7 also sees a difference between practising during education and treating a patient: „Ich hab es eher, ich würd schon sagen, der Unterricht ist eines und das andere ist das Arbeiten sofort damit.“ (IP7, 13, 44-45) [“Education and treating a patient are two different things.”]

For a conclusion, IP3 and 6 should be quoted who see within *„täglichen Arbeiten mit Patienten“* (IP3) [“daily work with patients”] and *„Üben“* (IP6) [“practising”] essential factors for perception training.

The IP certainly train within education, IP1, 2, 4 and 6 also attend training groups in addition and they also “train” while treating patients.

„Na, also wir haben in der Lerngruppe, in der Trainingsgruppe in der wir gearbeitet haben, irrsinnig viel getüftelt mit dem. Es hat dieser Gruppe, es hat eigentlich allen Spaß gemacht, das auch immer wieder durchzudenken und durchzuspielen. Und dann auch Stück für Stück [...] auch immer wieder zu üben und auszuprobieren und zu vergleichen. (IP1, 9, 14-26) [“We really fiddled a lot within the training group. It was fun for everybody to think it over again and again and run through it. And to train and try and compare it [...] bit by bit.”]

The statement of IP1 concludes this chapter. It shows that osteopaths dealt a lot with the subject matter within the group and they liked it. The part of conducting persons and of the learning group shall be the issue of another chapter. Chapter 6.4.8 went into detail concerning the significance of communication about perception.

6.4.10.2 Exercises within class

IP6 is the only one who reveals concrete exercises from class when he was asked about assistance in regard of perception training for hands. He describes this specific sensing exercise:

„Also das „Haar im Telefonbuch“ zum Beispiel. Habt ihr das auch gehabt? Also, wir haben zum Beispiel beim ersten Kurs schon gelernt, also, da war so ein Haar, ein Haar auszureißen und im Telefonbuch unter eine Seite zu legen und dann zu spüren, wo das Haar ist, und dann immer eine Seite mehr, eine Seite mehr, bis man es durch das ganze Telefonbuch quasi spürt. Das hat mich begleitet durchs Osteopathieleben.“ (IP6, 5, 40-48) [“For example the “hair in the phone book”. Did you already have that? We learned that during our first course; he had to put a hair beneath one page of the phone book, then we had to feel where the hair is and after that we put on more and more pages until you quasi felt it through the whole book.”]

This exercise is very important since it refines the sensibility of the hands as it increases the level of difficulty. The statement of Sutherland as it is in line with the “*dimming of tactile sense*”:

„Bei diesem Bemühen werden Sie dazu angehalten, Ihren Berührungssinn herunterzuregeln. Sie sind daran gewöhnt, mit der großflächigeren Anatomie der Wirbelsäule umzugehen. Beim kranialen Mechanismus hingegen könnte man sagen, dass Sie es vergleichsweise mit dem Mechanismus einer Damenuhr zu tun haben.“ (Sutherland, 2004, II, 172) [“During this exercise you have to train to dim your tactile sense. Normally one is used to the rather extensive anatomy of a spine. Compared to that the cranial mechanism resembles the mechanism of a lady’s watch.”]

This suggests that this exercise is good practice for example for cranial techniques.

IP3 and 6 also list exercises that improve imagination and advance the controlling of attention on different levels. In chapter 6.4.12 visualisation has already been discussed. For Sutherland (2004) it displays an important role in learning osteopathic features. He incited his students to visualize anatomical structures and as additional support he used metaphors. IP3 willingly remembers such exercises:

„Ja, am deutlichsten ist vielleicht noch so, dass, dass Membranen vielleicht wie gespannte Segel sind und dass der Liquor wie, wie eine etwas zähere Flüssigkeit, oder halt nicht ganz wie Wasser sondern so eine Spur dichter einfach ist, ahm. Mit solchen Bildern. Oder, an das kann ich mich auch noch erinnern, wie, wie sozusagen das erste Mal die Aufgabe war, sich dann durch den Liquor durch wirklich an das zentrale Nervensystem zu tasten. Wo ich so wirklich das Gefühl gehabt hab so, ah, ja, so mit höchster Vorsicht und, dass sich dann aber trotzdem wieder anders angefühlt hat, als jetzt diese Flüssigkeit, durch die ich jetzt da durchgegangen bin, dass das dann wieder fester geworden ist, aber trotzdem sehr weich und sehr ah ... also an das kann ich

mich auch noch sehr gut erinnern.“ (IP3, 9, 37-46) [“The membranes are like taut sails and liquor resembles water but a little bit thicker. We worked with such images. What’s more, I can remember when we were supposed to approach the central nervous system whereby we should work through the liquor for the first time. I felt to work very cautious and what I sensed was different every time. I mean, I kind of walked through this liquor and sometimes it felt firmer but still very soft, yes, I can remember that still very clearly.”]

This quote show, similar to the “*Reise der Elritze*” (IP6, 9, 37-37) [“journey of the minnow”] already mentioned within interviews, that it is important to osteopaths to be able to navigate perception to different structure respectively levels. Attention is one of the main mechanisms of perception as it has already been described in chapter fundamentals. Here it is about “selective attention” meaning concentrating on specific things – which is definitely necessary within osteopathic treatment. Chapter 6.4.12 will focus on visualization.

6.4.10.3 Summary

Within this chapter it was confirmed that training respectively education is elementary for osteopaths. First, a question has been answered: What is trained? Next to tactile sense and proprioception also “holistic perception” is educated. It has also been shown that the use of several senses is essential for osteopaths. The education of “sensing” takes a long time respectively actually never ends and verifiable influences sensomotoric areas of the brain. “Procedural Learning” via treating patients and via working on other members of the training group play an important role. Memories of singular exercises from class completes this issue.

6.4.11 Self-confidence

This chapter is about the osteopaths confidence in his or her ability to feel. IP2 describes this confidence as the „*größte Unterstützung*“ (IP2, 10, 21) [“greatest support”] within perception training. It is necessary to acquire this confidence as the interviewed osteopaths talked about doubts and scepticism at the beginning of the OT. It is a matter of this thesis to find out how they got over these doubts via affirmation and so gained self-confidence.

IP1, 2, 3, 4, 5, and 7 give information about this topic.

6.4.11.1 Doubts and scepticism

Particularly IP2, 3 and 5 talked about their doubts regarding the perceptual ability of hands within craniosacral osteopathy. IP2 says he is still in doubt: „[...] *also ich kann mich noch*

erinnern, am Anfang war es immer, immer so ein Zweifeln: spüre ich, kann man das überhaupt spüren? Spür ich das Richtige? So.“ (IP2, 5, 3-.5) [“...I can remember that in the beginning I had a lot of doubts: do I feel that, can one even feel something like that? Do I feel the right things? Right.”] He talks about scepticism: *„Das kann man doch gar nicht spüren.“* (IP2, 10,8-9) [“One cannot really feel that.”] IP3 also uses the same word. Scepticism coming from the head that opposes the intuitive fingers – this is also an issue of chapter “Confirmation” later on.

„Ahm, weil da muss ich jetzt wieder zu dieser Skepsis zurückkommen. Weil, weil das war am Anfang wirklich sehr stark, mittlerweile geht das ganz gut, dass meine Hände etwas gespürt haben und mein Kopf gesagt hat: Na ja, vielleicht ist das so oder auch nicht, oder spür ich das, weil ich es spüren soll, wie auch immer. Also der Kopf hat immer noch irgendetwas dazu zu sagen gehabt.“ (IP3, 13, 50-51 und 14, 1-3) [“I have to get back to scepticism again. In the beginning it was very strong, by now it got better, my hands sensed something and my head answers: Well, perhaps it’s like that or perhaps not or I feel that because I should feel it, however. My head still interferes with what I sensed.”]

Also IP5 remembers his initial thoroughgoing scepticism: *„Zuerst mit diesem Cranio spüren hab ich mir gedacht, sie tun uns das alles einsuggerieren, dass ich das halt spür.* (IP5, 7, 17-19) [“First I thought they only suggest that I feel that, especially during cranio education.”] *Ich war extrem skeptisch, war ich, wo ich mir denk, na ja. Ich hab mir gedacht, schauen wir uns, ich horch mir das jetzt einmal an.“* (IP5, 8, 10-15) [“I was very sceptical, I just thought, well, lets have a look, listen to it and then we’ll see.”]

Scepticism mainly occurs regarding craniosacral moves, those little moves that require “dimming of tactile sense” according to Sutherland (2004). The IP do not doubt that existence of this move in general but doubt the “possibility of perception”. “Is it in principle possible to feel that?” and “Can I feel it respectively do I feel it the right way?” are the main questions. This sceptical attitude handicaps the initial phase within osteopathic perception training. IP2 confirms that this *„auf alle Fälle gebremst hat“*. (IP2, 5, 31-33) [“definitely slowed him”] IP2 admits that it is very personal how present doubts and confidence are but he considers that subsequent training groups have more fundamental confidence:

„Sicher, wo ich mir denk, das, genau, das ist sicher eine persönliche Geschichte mit mir, aber ich hab auch so gemerkt, dass sich das Bewusstsein, Dinge zu spüren, sich einfach im Lauf der Jahre verändert hat. Auch in den Ausbildungsgruppen. Also, in unserer Gruppe vor, weiß nicht wie viel Jahren, waren noch viel mehr Zweifel als in

den Gruppen jetzt [wo er assistiert hat] , die da viel selbstsicherer sind. Genau. Genau, und dass das viel selbstverständlicher ist. Was immer da der Grund ist. Ob es einfach eine globale Wien-Veränderung schon gibt, weil die Osteopathie präsenter ist, oder weil die Leut, weiß ich nicht, anders mit sich arbeiten, oder weil die Zeit einfach eine andere ist. (IP2, 5, 3 -21) [“Of course, it is very personal but I noticed that awareness, to feel things that really changed over the years. Also within the classes. In our group, long time ago, there were lot more doubts than in the groups today (he assisted in such a group), they are much more self-confident. Exactly, it became more natural. Whatever the reason is, if there is a kind of global change in Vienna or it is because osteopaths became more present or if, I don’t know, people work different with themselves or just because the times changed, I don’t know.”]

IP2 talks about the commencements of osteopathy in Austria. He had attended the WSO four years after its foundation where osteopathy and craniosacral therapy were almost unknown in public and students did not accept it as naturally as later. Osteopathy became more familiar and more and more patients came in touch with it – especially in Vienna. Reasons why the trust in craniosacral therapy and the possibility to avail to the opportunity increased, maybe lies on the one hand within the lower “collective scepticism” and on the other within the work with oneself, at least that is what IP2 presumes. Chapter 6.4.3 will focus on this kind of work itself and its influence on perception.

The IP reported that those doubts continued quite a while. For IP2 it lasted during the whole OT. In her master thesis Wojna (2006) reports of certain doubts of some osteopaths that were interviewed concerning the craniosacral therapy. Some of these *“Osteopathen zweifeln immer wieder stark an ihren Wahrnehmungen und sind unsicher bezüglich dem, was sie als Therapeuten bei der cranialen Arbeit eigentlich tun.”* (Wojna, 2006, 72) [“again and again doubt their perceptions and are insecure with regard to what they are actually doing as therapists in cranial work.”] So how could they come over their doubts and gain confidence? IP2 gives an answer therefore: *„erst durch, durch tun. [...] das Bewusstsein, dass ich das, das Vertrauen drauf, [...] dass das passt, was ich spür.“* (IP2, 10, 8-14) [“not until doing, practising. [...] I had to feel that I can trust in me, that it’s alright what I’m feeling.”] The osteopath has to do something, has to go into perception, has to and work with it. Comparisons to that also in chapter 6.4.10.1. But from doing over the intermediate step “Confirmation” one can get self-confidence.

6.4.11.2 Confirmation

The IP talk about different kinds of confirmation. Those are confirmations connected with the outside world like 1. the confirmation of perception given by colleagues and lecturers and 2. the confirmation of successful therapy given by the patient. But they are also connected to the “inner world” of the osteopath like recognition, which gives confirmation.

The first kind gives confirmation of perception respectively what has been sensed. The way to get there is exchange and communication. See chapter 6.4.8.

To exchange about perception, two osteopaths have to treat the same patient. That enables to put the sensations into words and to compare. Confirmation is given when both have sensed the same. This exchange was possible within class with lecturers and assistants, partly within supervisions, within training groups and mostly within the continuative education for children’s osteopathy after the OT. IP2 sensed a distinct change from doubt to self-confidence only within children’s osteopathy:

„Genau. ... Wobei, wobei der Zweifel ja sicher lang angehalten hat. Also ich hab so das Gefühl, die wirkliche Veränderung ist dann erst so in der Kinder-Osteopathieausbildung passiert. Mit dem: mehrere Hände anlegen.

Autorin: Welche Veränderung ist da passiert?

Das `mehr darauf vertrauen, dass das passt, was ich spür`. Weil man sich austauscht. Genau. Und wenn dann natürlich dieser Unterschied ist, ob man jetzt eben zehn Kinder gemeinsam behandelt, oder ob ich eine Übung mach, und einmal ein Assistent dabei ist. In der Bestätigung. Genau. Wobei es auch schwierig ist, weil ... ahm ... weil natürlich die Praxis und das Wissen ja zum Zeitpunkt der Kinderosteopathie-Ausbildung schon ein anderes war, als noch während der 6 Jahre [der OA]. (IP2, 6, 11 -42) [“Exactly,...Doubts lasted quite a while. It really changed only during children’s osteopathy training. With that more hand thing.

Interviewer: What change took place?

I just gained more trust in what I did and that it was right. Because of exchange. And of course there is a huge difference if you treat ten children together or if I treat and there is an assistant with me once. Within confirmation. But of course it is quite different...since at the time of children’s osteopathy training knowledge and practice are different than six years before [during OT].”]

The of “multi-hands” supports the opportunity to exchange. Whereas the question comes up – as well as IP2 already mentioned – if that would be possible within the OT at an earlier stage, since after all, osteopaths are on a different level regarding knowledge and at that time. IP2

notices a quantitative and qualitative difference. Insofar quantitative as ten treatments give more confirmation than an exercise. Insofar qualitative as mutual training is not comparable to treating a patient. Even if children's osteopathy after the OT was very important for IP2 confirmation, there was this confirmation already during class and especially within a crucial point during supervision. This scene is precisely described in chapter 6.4.8.1.

IP3 gives a good example for confirmation given by successful therapy:

„Ahm, ich kann mich jetzt speziell an eine Schlüsselszene erinnern. [...] Wo ich dann wirklich mein erstes Kind in der Hand gehabt hab. Weil vorher war dann noch immer so dieser Gedanke: wenn ich dem Patienten erzähle, der kommt z.B. mit Kopfweg und ich lege meine Hände jetzt an seinen Kopf, dann wird sich da an seinem Zustand etwas verbessern. Wie sehr kann ich ihm das noch einreden, wie sehr tu ich wirklich was. Das war so ein Teil, der noch ein bisschen skeptisch betrachtet wurde. Von mir, ja. Und wie ich dann mein erstes Kind in der Hand gehabt hab, der war damals glaub ich 9 Monate alt und hat so prompt reagiert und dann hab ich mir gedacht: Dem kann ich jetzt nix mehr eingeredet haben. Es ist, wie es ist und ich kann mich wirklich auf das verlassen, was ich spür und brauch das nicht mit Skepsis und in Frage stellen ständig. Sondern, vielleicht schon so ein bisschen kritisch hinterfragen, aber grundsätzlich kann ich den Weg so verfolgen, wie er sich darstellt.

Autorin: Mh. Du hast einfach die Bestätigung gekriegt, direkt vom Patienten, dass es ihm so viel besser geht.

Genau. Und ich dem sicher nix eingeredet hab mit seinen 9 Monaten.“ (IP3, 7, 4-29)
[“I especially can remember a crucial point. [...] When I worked with a child for the very first time. Before that I always had this thought: if I tell the patient, if there is a patient with headache for example and I lay my hands onto his head, his status will improve. Inhowfar do I influence him by talking, inhowfar do I really do something? That was a part considered critically, from myself. But when I worked with a child for the first time, I think it was about nine months old, the reaction was immediately visible and then I thought: I could not have suggested that now. It is as it is and I can rely on what I feel and I don't have to question it. Of course I challenge it a little bit but basically I can chase the way as it presents itself.

Interviewer: You just got confirmation directly from the patient that it really helped.

Exactly. And I certainly did not suggest anything, he was nine months old.”]

Success in therapies gave him more confidence in his perceptual ability. For IP3 it was important to realize that his head reacted sceptical but that he could have more and more trust

in his fingers. *„mittlerweile ist es so, dass ich mich einfach auf dieses Wissen, das in meinen Fingern ist, wirklich verlass, ohne dass der Kopf dann sagt: Na ja vielleicht könnte oder würde oder sonst irgendetwas. Also dass ich echt so das Gefühl hab, die Finger wissen es.“* (IP3, 14, 3-6) [“By now I can really rely on my fingers’ knowledge without my head saying: Well, perhaps could, would should or anything else. I do have the feeling that my fingers know what to do.”]

IP7 supposes that confirmation within class is important as well as confirmation given by the patient: *„Ja sicher. Sonst wenn man das nicht bestätigt, dann weiß man ja nicht, ob man richtig ist.“* (IP7, 13, 33-34) [“Yes, of course. If this does not confirm you, you don’t know that it’s right.”] He always worked a lot and applied everything immediately. *„Und wenn dann der Patient sagt, das ist besser, weiß ich, okay ich war richtig.“* (IP7, 13, 38-40) [“And when the patient afterwards says, that it’s better, I know that it was right.”]

The comment of IP2 makes the significance of confirmation given by the “inner world” of the osteopath obvious. IP2 thinks that exchange is “good and well” but: *„aber ... weiß ich wirklich genau, was du spürst?“* (IP2, 10, 8-22) [“do I really know, what you are feeling?”] Everyone just has his or her own perception and so everyone has to feel on one’s self in order to recognise it. For example to see liquid as liquid and recognise it afterwards. This principle of “recognition” has already been discussed in chapter 6.4.7.6 within measuring perception.

The now following story from IP4 deals with finding the “own”. In his case confirmation given by the lecturer during class was not supportive: *„Nein, die haben mich gehindert.“* (IP4, 10, 14) [“No, they just constrained me.”] *„Also, also nicht die, ... also die Lehrer, die mir versucht haben zu sagen, was ich zu spüren hab, haben mich behindert.“* [“No, so, not them,..., the teachers telling me what to feel, they constrained me.”] He tells:

„Erst dann, bis ich mir erlaubt hab, das zu spüren, was ich spüre. Also, und das, der Prozess hat lange gedauert, weil das, ich seh das so, auf meinem Stand, wo ich heute bin, hab ich damals schon diese Dinge gespürt, was ich in der Biodynamik [nach der OA]erst gelernt hab. Ja. [...] Der Vortragende im Bereich Cranio an der WSO, der hat irgendwie schon diese Fähigkeiten, die ich habe, schon erahnt und ist das ah interessante an dem Ganzen war, ich, ich habe mir dann erlaubt, ich spür einfach, was ich spür und wenn der jetzt sagt, das und das soll ich spüren, das lass ich an mir vorbeigehen, ja. Das Interessante war nur, dass alle sehr fasziniert waren von meinen Händen.

Ah, ja. Angefangen vom Vortragenden im Bereich Viscerale und weiterführend zum Vortragenden im Bereich Craniale, und ich hab immer den vollen Respekt von ihnen

gehabt. Weil sie genau gespürt haben, wenn ich das mach, ja. und zulass, was passiert, das ich, sie haben zwar nicht gewusst, was ich mache aber sie haben die Veränderung im Patienten wahrgenommen. Und somit konnte ich eigentlich dabei bleiben bei dem, was passiert. (IP4, 8, 41-47 und 9, 14-42)

[“Only until I allowed myself to feel, what I felt. This process lasted quite a while because, in my opinion, I already felt what we only learned afterwards in biodynamics [after the OT]. So. [...] The lecturer teaching cranio therapy at the WSO, he kind of anticipated my abilities and what’s really interesting about it is, that I allowed myself to feel what I felt and to ignore what they said I should feel. But it’s interesting that everyone was fascinated by my hands.

Ah yes, starting with the lecturer teaching visceral to the lecturer teaching cranial and I always really respected them. Because they felt when I did something and allowed it, that I, they did not really know what happened but they saw the change within the patient. And so I could stay with what happened.”]

IP4 sensed already during the education levels, which can be sensed by others normally at a later date. That means within osteopathy respectively biodynamics that he already felt zone B, the energy body, and was not so aware of zone A, the physical body. His process was to allow himself to feel what he feels. Therefore he got confirmation by biodynamics lecturer.

„Es gibt den Vortragenden der Biodynamik, Gott sei Dank, der mich immer wieder bestärkt hat, dass das okay ist, was ich spüre. Also, der hat diese Ebene erfasst, die ich spüre. Und hat mir immer wieder die Bestätigung gegeben und aufgrund dieser Bestätigung hab ich, hab ich dieses Selbstvertrauen aufgebaut und hab mir das nicht mehr – hab mir das von niemandem ausreden lassen.“ (IP4, 10, 27 -38)

[“There is the biodynamics lecturer, thank God, and he fortified me that it’s okay what I’m sensing. So, he comprehended the level I sense. And he confirmed me on and on and because of this I gained more self-confidence and nobody could talk me this confidence out.”]

But also the lecturers of the OT confirmed in another way: *„Na, es war dann schon eine Bestätigung, weil ich genau gespürt hab, dass die fasziniert waren von den Ergebnissen.“ (IP4, 10, 46-47)* [“Yeah, it was a kind of confirmation as well since I could feel that they were all impressed of the results.”]

6.4.11.3 Blockades

Before this chapter is going to be, the author wants to dwell on blockades shortly. It seems necessary to sum up the decelerating factors for the “self-confidence process”. The first blockade is the doubt coming from the head and has already been described before. The second blockade refers the previous knowledge. Like already in chapter 6.3.1.6 “earlier cranio training” and 6.4.2.7 “previous knowledge” mentioned, this knowledge led to certain images how it might be. But it was different to the expectations so it slowed. IP4 summed up the third kind of blockade: *„da soll ich jetzt irgendwo etwas spüren“, war eigentlich blockierend. Weil in dem Moment, find ich, hab ich dann schon gar nix mehr gespürt.“* (IP4, 7, 46-47 und 8, 4) [“and I should feel something and that was somehow blocking. Because at that point I couldn’t feel anything anymore.”] The preconception *„das soll ich spüren“* (IP4, 7, 41) [“that’s what I should feel”] also decelerated IP4 and 6. Both of them were not really happy with the “structural cranio” and its prescribed movements of the single cranial bones and their connections. The point of view of IP4 had been described before. He felt better in sensing the energy body than the physical body. IP6 was comfortable with sensing the cranial movements of the physical body but he is sceptical, too: *„Jain. Ich habe mich sehr wohl dabei gefühlt, aber ich hab nicht alles gespürt. Ich glaube auch ... jetzt, dass es (Lachen) vieles davon nicht gibt, dass man hätte spüren sollen.“* (IP6, 4, 42-44) [“Yes and no. I felt comfortable but I could not sense everything. Meanwhile I suppose...that (laughs) quite a lot of what we should feel, isn’t even existing.”]

This “that’s what I should feel” blocked some osteopaths but confirmed others, like IP1: *„Ah, wie ich das Gefühl gekriegt hab, ich spür eigentlich das, was ich spüren soll.“* (IP1, 9, 31) [“Ah, when I got the feeling, I do feel what I should feel.”]

6.4.11.4 Summary

The interviewed osteopaths reported about doubts and scepticism regarding their own perceptual ability at the beginning of the OT. These doubts, certain previous knowledge about craniosacrale therapy and the force to “have to feel” were decelerating factors within perceptual development, if not even blockades. Via “doing” meaning training of the perceptual ability a base for confirmation was created and this led to confidence in one’s own perceptual ability. They also received confirmation by recognition as a personal process, confirmation given by exchange about perception with lecturers and colleagues and also by patients because of successful therapy.

6.4.12 Visualization

In chapter 3.2 visualization was an issue concerning finger description. Visualization is connected with the “seeing fingers”. According to Sutherland (2204) *seeing* means to look inside the body respectively to create a mental picture of the inside of the body. Sutherland urged his students to visualize. He used phrases like: *Halten Sie sich das Bild [...] vor Augen.* (Sutherland, 2004, I, 52) [“Hold that picture [...] in front of your eyes.”] – *Stellen Sie sich bildlich vor.* (59) [“Visualize it.”] *Visualisieren Sie [...] (144) – [...] müssen wir unsere Vorstellungskraft bemühen.* (167) [“Visualize – [...] we have to train our imagination.”]

Sutherland considers visualization as a support to figure tissues that lie inside the body and cannot be touched, to perceive them clearer and to treat them better. There are pictures from anatomic structures, for movement and functions, for techniques and lesions. Next to the anatomic pictures Sutherland uses metaphors to support the imagination of students.

Also during the interviews with the osteopaths visualization came up. Here should be clarified whether these seven osteopaths see visualization as support for perception training and which images especially helped them.

IP3 shared his experiences and by that stresses dissection as supportive factor:

„Also, ich spür jetzt ein Zwerchfell leichter, seit ich mich einmal da am Weg hinseziert hab und mir das einmal wirklich in Natura ah angeschaut hab oder anschauen hab können, oder angreifen hab können. Wieder einmal. Ich hab es sozusagen wirklich in der Hand gehabt und seither hab ich auch das Gefühl, dass ich das, dass das viel schneller geht. Das ich mir das viel besser, viel schneller vorstellen kann, als jetzt vorher, wo sozusagen nur vielleicht eine Darstellung aus einem Buch war. Oder irgendein Gefühl vermittelt wurde. (IP3, 9, 4-10)

[“So, I feel the midriff easier now since I dissected my way through to it and since I looked at it and touched in kind. Again. I sort of held it in my hand and since that I’ve the feeling that it works out much faster. I can imagine it better, much faster, than before where it was just a picture in a book without any feeling conveyed.”]

Das Visualisieren. Genau. Und dann denk ich mir dann, ist das so im Laufe der Zeit wirklich ziemlich schnell gegangen. Also dass, dass man auch wirklich verschiedene Qualitäten unterscheiden kann. Obwohl die Hände immer noch an der äußersten Schicht liegen.“ (IP3, 9, 19-22)

[“Visualization, exactly. And sometimes I think that as time passes by, it got easier and faster. You can really tell qualities apart. Although the hands are still on the outside.”]

To dissect structures, which lie deep inside the body and so are not forthright “visible or touchable”, helps imagination. IP3 names pictures from class like *„Membranen, die wie gespannte Segel sind und dass der Liquor wie, wie eine etwas zähere Flüssigkeit ist.“* (IP3, 9, 37-38) [“membranes are like taut sails and liquor resembles a little bit thicker fluid.”] IP3 remembers an exercise which resembles the “journey of the minnow” already mentioned in chapter 3.2. and this challenged and trained his imagination. It is a virtual journey through the body:

„Oder, an das kann ich mich auch noch erinnern, wie, wie sozusagen das erste Mal die Aufgabe war, sich dann durch den Liquor durch wirklich an das zentrale Nervensystem zu tasten. Wo ich so wirklich das Gefühl gehabt hab so, ah, ja, so mit höchster Vorsicht und, dass sich dann aber trotzdem wieder anders angefühlt hat, als jetzt diese Flüssigkeit, durch die ich jetzt da durchgegangen bin, dass das dann wieder fester geworden ist, aber trotzdem sehr weich und sehr ah ... also an das kann ich mich auch noch sehr gut erinnern.“ (IP3, 9, 37-47)

[“What’s more, I can remember when we were supposed to approach the central nervous system whereby we should work through the liquor for the first time. I felt to work very cautious and what I sensed was different every time. I mean, I kind of walked through this liquor and sometimes it felt firmer but still very soft, yes, I can remember that still very clearly.”]

IP3 travelled within his imagination through various tissues with different qualities. IP6 gained good experiences because of dissection and also because of the journey of the minnow. While dissecting he had a heart in hands:

„Dieser Vortragende hat einfach durch seine ... durch seine Liebe und Offenheit ganz viel ermöglicht. War also, indem ich zum Beispiel, bei meiner Diplomarbeit damals, dass er mir das ermöglicht hat, dass ich diese Herzen sezieren kann. Da hab ich schon eine Million Eindrücke gekriegt vom Herzen in meinen Händen, wie sich was anspüren kann, und einen ganz anderen Zugang.“ (IP6, 7, 11-16)

[“This lecturer just made...a lot of things possible because of his love and openness. During I wrote my master thesis he made it possible for me to dissect this hearts. I gained a million impressions of this heart, how it felt, and I got a completely new access to it.”]

IP6 gained a lot of impressions “what’s feeling how” – meaning to know how something feels even though you cannot touch it. Barral also talks about dissection and how he marvelled at the human body:

„In vier Jahren habe ich jede Woche eine Sektion durchgeführt. Ich war erstaunt zu sehen, dass durch Lobektomie oder Fibrose eines Teils der Lunge ein so hoher Zug auf den Prozess transversus der Halswirbelsäule ausgeübt wurde, dass dieser Knochen verformen konnte. Das zeigte mir, dass sogar eine kleine viszerale Fixation stark genug ist, die Mobilität, Motilität und Physiologie der Organe zu stören. Es half ihm, sich Läsionen besser vorstellen zu können.“ (Barral, 2007, 4)

[“Within four years I carried out a dissection every week. I was astonished to see that because of lobectomy or fibrosis of a part of the lung such a force was put on the spinal transverse process that this bone had been deformed. This showed me that even tiny visceral fixation is strong enough to disturb mobility, motility and physiology of the organs. It helped him to imagine lesions more easily.”]

Dunshirn (2006, 159-164) shows in her paper “The midline in osteopathy” that visualization is also important to perceive the midline (ML). On the one hand she names anatomic images and traces the question how significant anatomical knowledge for ML-osteopaths is. On the other hand she mentions quite a few new images coming from her interview partners. The resume is that training of visualization ability seems to be helpful for ML-treatment. She quotes Van den Heede that underline visualization: *„Das wichtigste osteopathische Prinzip für die Behandlung ist die Visualisation, ein mentales Bild zu haben.“* (Dunshirn, 2006, 162 Van den Heede, 2003-2005) [“The most important osteopathic principle for treatment is visualization, to have a mental image.”]

6.4.12.1 Summary

Visualization is definitely supportive for osteopaths within perception training. The “thinking fingers” of Sutherland that can also be considered as “seeing fingers” – see chapter 3.2 – show the aspect of inner seeing. Visualization based on anatomic images or on offered metaphors help to perceive superficial and directly palpateable tissues and also to sense deeper tissues which cannot be palpated directly. It becomes obvious that dissection can be very helpful for imagination as an antecedent sensational experience.

6.4.13 Having fun

Ayres holds (2002) that a child is having fun if he or she has experiences with demands onto which they can react in an useful way. She sees having fun as the embodiment of good sensorial integration. Also see chapter 4.4. This statement is valid for the interviewed osteopaths, too. The possibility to classify sensual perception reasonable is very satisfying.

The osteopath connects all sensations from the fingers and the other sense organs and so perception can be sensed holistically. Also osteopaths grow with their challenges if they „Empfindungen mit angepassten Reaktionen beantworten können, die reifer und komplexer sind als alles, das ihnen zuvor begegnete.“ (Ayres, 2002, 11) [“can answer perception with suitable reactions that are more mature and more complex than anything they have met before.”] Because of accommodation reaction he or she gets over a new defiance and learns something new. Having fun is an evidence of “bringing along” a good sensorial integration and of “development”.

So, how do the IP express their fun, their joy and motivation?

IP1, 6 and 7 answer directly. Basically it is obvious that all IP, whether they do that directly or indirectly, show delight and interest in osteopathy and in “learning and developing to sense”. IP1 uses words like „lustvoll, zu arbeiten“ [“full of relish to work”] and „unglaublich faszinieren“ (IP1, 4, 11 und 9, 18) [“unbelievable fascinating”]. He also uses the term fun: „Es war auch sehr vergnüglich, das zu tun. Also das war keine Strafe! [Anatomie]Es hat dieser Gruppe, es hat eigentlich allen Spaß gemacht, das auch immer wieder durchzudenken und durchzuspielen. Und dann auch Stück für Stück, [...] auch immer wieder zu üben und auszuprobieren und zu vergleichen.“ (IP1, 9, 19 -26) [“It was very delightful to do so. It was no punishment.” [anatomy] It was fun for the group, for everyone, to think it over again and again and to run through it. And step by step, [...] and to train again and to try and compare.”] IP1 mentions with his own words this accommodation process “growing with the challenges” and the fun which shows satisfaction about newly learned things:

„Es ist einfach so wirklich nett, dass man, je länger man sich damit beschäftigt, umso besser kann man werden. Das ist unglaublich vergnüglich. Wenn ich mir vorstelle, dass ich jetzt dann irgendwann mal, so es mir erlaubt ist, ein paar Jahrzehnte gehackelt hab, dann pfau, was kann ich dann noch alles spüren? Das ist auch etwas, was ich sehr faszinierend find.“ (IP1, 22, 27-31)

[“It is really nice to see that you can get better the longer you deal with it. That’s really pleasant. If I imagine working for a few decades so it is possible, wow, what else am I going to sense? That’s something I consider as very fascinating.”]

Ayres describes that „erlebte Empfindungen und Anpassungsreaktionen eine Selbstachtung aufbauen.“ (Ayres, 2002, 17) [“already undergone sensations and accommodation reactions build up self-respect.”] The words of IP1 „was kann ich dann noch alles spüren?“ [“what else am I going to sense?”] are evidence of fascination and curiosity but also of self-respect.

IP6 considers anatomy as something „*Schönes, ja was Tolles.*“ (IP6, 9, 46) [“beautiful, even amazing.”] and agrees that cranial anatomy is fun. IP7 assess the cranio lecturer of the OT since he sparked „*ein echtes Interesse an der Materie, eine Freude am Spüren*“ (IP7, 7, 21) [“a real interest in the matter, a joy in sensing.”]

6.4.13.1 Summary

To sum it up shortly it can be stated that the interviewed osteopaths approach their perception development with a lot of delight and motivation and new challenges led them to new abilities that in turn increase fun.

6.4.14 Steps of development and treatment repertoire

In this chapter the steps of development of the fingers respectively the perception should be displayed. As the osteopath imports a lot in his perceptual development – chapter 6.4.2 to 6.4.5 – then trains his sensational and perceptual abilities – chapter 6.4.10 – and gets over blockades and has support – chapter 6.4.11 to 6.4.12 – one question occurs: “What does the finger respectively the osteopath learn?”

These learnt abilities are mainly quoted from IP1, representative for the other IP. For whatever reason, only IP1 described the steps of the fingers very detailed.

IP1 talks about three great steps of development. The first one he describes in the following way:

„Es waren, es waren so diese ersten mobilisierenden Techniken. Beim Vortragenden der allgemeinen Techniken, oder damals noch bei einem Vortragenden aus Frankreich, gab es viel in dieser Richtung, das war, und zwar vor allem das, wo wir fast ein bisschen tänzerisch arbeiten mussten, um in diesem Bewegungsfluss drinnen zu bleiben, also das war[...] so dieses Mobilisieren [...]Also das hab ich immer sehr faszinierend gefunden. Ja, das war etwas was, ich mein, das liegt mir auch, das zu tun. Oder ist damals und zu diesem Zeitpunkt einfach auch sehr stimmig gewesen, das zu machen.

Autorin: Machst du das jetzt auch noch so wie du es damals?

Nein, nicht mehr. Das war ein Entwicklungsschritt. Für die Hände ein absolut wichtiger.

Autorin. Und das wichtigste an dem Schritt war?

Das könnte ich jetzt nicht formulieren. Einfach dieses Gefühl von, genau den Rhythmus und die Intensität finden, dass so eine wirklich eine ganz feine

Bewegungsreaktion kommt. Wo man das Gefühl hat, man schmeichelt sich so richtig in die Gewebe hinein, also das das erste Mal spüren, das war Initialzündung. Also, dass es keine Kraft braucht, dass es am besten ist, es wenn es total stimmig ist für beide, also wenn ich mich nicht anstrenge, der Patient es ganz fein hat, das am ehesten.“ (IP1, 6, 6 bis 7, 5-11)

[“It were the first mobilising techniques. The lecturer of general techniques, or, it was a lecturer from France, we did a lot in this matter, we had to work almost a little bit dance-like to stay in this flow of movement that was [...] this mobilisation [...] I always found that very fascinating. Yeah, it somehow suited me. Or it was quite consistent at this time.

Interviewer: Do you do it in the same way as at that time?

No, not anymore. It was a step of development. Absolutely essential for the hands.

Interviewer: And what was most important about this step?

I couldn't express that exactly. It was this feeling to find the rhythm and the intensity to evoke a very little, fine reaction in movement. It's when you get the feeling you kind of flutter into the tissue, to feel that the first time was a priming. So, you don't need any strength and it's best when it's harmonious for both, meaning if I don't force it, it's the most pleasant for the patient.”]

The first step of development was to apply the mobilising techniques very well. This needs a certain position and dynamics of the osteopath to carry out the movements flowing and to find a rhythm and intensity in movement in order to connect with the tissue so that the tissue can react without using the osteopath's energy. Thereby the patient is “relaxed comfortably”. This is an ability developed and became “pathfinder” for further abilities. Those structural techniques belong to the “structural osteopathy” and form the first column. IP1 talks about the second column, the craniosacral one, within the next, the second step of development. Here it is not about bigger or smaller movements but about “dimming the tactile sense”, as it had already been mentioned within this paper. The following ability was to „*Gewebsschichten zu differenzieren*“ (IP1, 7, 18) [“to differentiate layers of tissue”]

„Was hab ich da jetzt wirklich in den Händen? Und das hab ich im Rahmen der Physiotherapie über all die Jahre nirgends wo erlebt. [...] es war jedenfalls sehr motivierend, das zu finden das erste Mal. Nein, es ist jetzt nicht der Muskel, sondern es ist die Muskelhülle, oder oh, das war jetzt das eine Muskelbündel mehr in der Mitte und jetzt hat die Sehne mitreagiert. Oder: Aha, nein das waren jetzt nicht die Muskeln,

die die Kopfgelenke verbinden, nein das war tiefer, das war das Ligament, nein wahrscheinlich war es die Dura. Also so diese Differenzierung.“

Autorin: Schon in die Tiefe hinein. Also zu Geweben, die wir von außen nicht wirklich , also nicht direkt jetzt spüren. Wir spüren in die Tiefe.

„Mh, ja.“ (IP1, 7 ,17-38)

[“What am I really holding in my hands? And I never experienced that during physiotherapy after all those years. [...] in every case, it was very motivating to find that for the first time. No, now that’s not the muscle but the fascia, or oh, that was the bundle of muscles in the middle and now the tendon coated. Or: Ah, no, that haven’t been the muscles that connect the joint, no, that has been deeper inside, that was the ligament, no, probably it has been the dura. That’s the differentiation.

Interviewer: More into the deep. I mean, to the tissues we cannot really feel from the outside. We sense into deeper.

Mh, yes.”]

This step is to sense the different structures of the body, from the outer to the inner ones. It is good to see that gaining new abilities is very motivating – see chapter 4.6.4.13 Having fun.

Within the next step of development, IP1 moves from “What do I have in my hands?” to “And what about the rest?”. He still stays at the craniosacral therapy and moves forward in little steps:

„Und erst der nächste Schritt war eine Idee zu kriegen, was hat sozusagen dieses gesamte Skelett und der nächste Schritt war dann, spüren zu können: Was ist da drinnen? Also außer Periost. Und dann gibt’s halt doch irgendwann Membranen (lächeln). Und dann von Flüssigkeitsbewegungen im Schädel ... und dann war lange nix (lächeln) außer dem einen: Da oben ist der Schädel, und da unten ist das Sakrum. Aber ... (lächeln) die haben nicht sehr viel miteinander zu tun gehabt. Ziemlich lange nicht. Wirklich lange nicht. Irgendwann war es möglich eine Verbindung zu finden, eine Spürverbindung, und erst wieder viel später war es möglich auch, auch Kontext zum Restsystem zu kriegen, mit unterschiedlichen, auch wieder unterschiedlichen Ebenen. (IP1, 10, 20-45)

[“And the next step was to get an idea what this skeleton and the next level was: What’s inside there? Everything except periosteum. And then there are membranes (smiles). And about fluid movement in the cranium...and then there was nothing for a long time (smile) except one thing: There is the cranium and there is the sacrum. But...(smiles) they had rarely anything to do with each other. For quite a long time.

Sometime it was possible to find a connection, a perceptual connection and only after a while it was possible to put it into context with the rest within those different levels.”

]

There were several further steps in learning to sense what is “farer away from the fingers”: From the bone level to the periosteum to the membranes and fluids. To get in the end a connection from up to down, meaning from the whole system. According to IP1 his last step took place during the OT within children’s osteopathy.

The third column of osteopathy, “the visceral”, is hardly ever mentioned in the interviews. But IP3 and IP7 sum up the abilities they have gained as a treatment repertoire. He also calls his abilities “tool kit”:

„Und dann ist es aber sehr wohl so, dass ich jetzt auch nicht zu den Therapeuten gehöre, die sich dann nur mehr hinsetzen und spüren, sondern dass in meinem Behandlungsrepertoire wirklich von einer Manipulation bis zum reinen Spüren, Spüren auch wirklich alles vertreten ist. Ahm, und, und damit einfach auch für mich, ahm, die Werkzeugkiste einfach auch so groß geblieben ist und ich mir nicht einfach einen Teil wieder weggenommen hab.

Autorin: Das heißt, es ist einfach immer mehr geworden. Es ist nicht wirklich etwas weggefallen sozusagen.

Nein, nein, aber für mich wäre es dann ein Wegfallen, wenn ich sag, ich arbeite jetzt nur mehr auf der Spürenebene und schau mir nicht mehr vielleicht auch wirklich was rein Strukturelles an. Oder sag okay, ahm ich glaub, dass da jetzt wirklich eine Manipulation das Mittel der Wahl ist. (IP3, 12, 26-43)

[“But it is like that, I’m not one of the therapists who only sit down and feel but inside my treatment repertoire is everything included, from a manipulation to only sensing. That’s the reason why the tool kit is still that big and I didn’t took something away.

Interviewer: That means it got bigger. Nothing fell apart.

No, no, but it would be a loss for me if I’d only work with sensing alone and don’t take a look at all those structural things. Or just state that a manipulation is definitely the best treatment that could be applied.”]

IP3 mainly summarises the structural and the craniosacral therapy. IP7 also includes the visceral:

„Ah, ich arbeite sehr gemischt. Das heißt, ich arbeite, setze sehr viele verschiedene Techniken ein. Ich bin nicht jemand, der nur cranial arbeitet, phasenweise schon. Bei

den Kindern vor allen Dingen. Aber ich arbeite sehr gern auch strukturell und, und auch viszeral. Ich bin sozusagen ein ganz normaler Osteopath.“ (IP7, 15, 11 -22)

[“I work really mixed. That means I use a lot of techniques. I’m not somebody who only works cranial, at times yes. Mainly with children. But I like to work structural and also visceral. I’m, so to say, a completely average osteopath.”]

6.4.14.1 Summary

The question on what has been learned, which was posed at the beginning of the chapter, can only be answered partly. By means of “finger training” respectively perception training within the OT the osteopaths learn to sense the tissues of the body. They learn to feel the tissue within structural osteopathy via mobilising movements. They learn to sense tissue within craniosacral osteopathy via very small craniosacral movements – tissues lying directly beneath the fingers as well as those deeper inside and farer away. They learn to feel the visceral movements within the visceral osteopathy. Osteopaths get over new challenges by means of so called accommodation reactions and so gain new abilities. Things that have already been learned earlier develop the sensorial integration and “pave the way” for new abilities. Later on in chapter 6.4.17. “The way” it is displayed that abilities learned at an earlier stage are sometimes forgotten or changed for a short time. All of this abilities learned are used by the osteopaths individually or sometimes parts are left out. In every case, the “tool kit” is huge!

6.4.15 Dialogue with the tissue

You can refer to the “output” of the osteopathic perception training as “communication with the tissue”. All of the interviewed osteopaths agreed with this denomination. IP3, 5, 6 and 7 consider dialogue as the best name. IP1 calls it communication, IP2 talks about interaction and IP4 about game with the tissue. IP5 additionally uses the metaphors “flow” and “composition”. IP7 also considers it as “seesaw”.

What is it about this ability to converse with tissue?

According to the interviewed osteopaths it consists of several steps:

1. Getting into contact with the patient: All osteopaths make connection by means of their hands – at very different tissues. IP1 admits that he always puts the hands on if “he’s allowed to do so”. For him getting into contact is already part of the communication. It has a high significance as already shown in chapter 6.4.4. IP5 questions himself where to touch to make a good contact and chooses the point of

contact intuitively. He reports that „*Manchmal hab ich das Gefühl, am Kopf darf ich noch gar nicht hin.*“ (IP5, 12, 8) [“sometimes he has got the feeling that he is not yet allowed to touch the head.”] To him this initial point of contact is important. He calls it a kind of door respectively gate which he has to find to get into contact.

2. Diagnosis: The osteopath makes a diagnosis. He tries to find out “WHICH tissue is feeling HOW?” IP3 stresses that the tissue has to be asked for permission to go deeper. He wants to be led by the tissue. He acts passive and regardful. The tissue is “questioned”. „*Grad, dass ich nicht frag: `wie fühlst du dich an?`*“ (IP3, 10, 49) [“It’s nearly like asking: ‘How are you feeling?’”] This way he gets a lot of information from the tissue on different levels. IP3 talks about a “synaesthetic perception” when he numbers pictures, sounds and scents and also finds suitable adjectives. IP6 makes a diagnosis by means of the “sensing, smelling, hearing and tasting fingers”. Compare chapter 6.4.7.2 about “Sensing”. IP1 mainly works biodynamical and makes a diagnosis by trying to find out what is physiological and healthy. He gets information from the levels like for example metabolism, density and nervous system as well. IP5 diagnoses since the tissue shows the “issue”. IP4 is the only one who is already talking about anamnesis. There he gathers the whole personality, from traumatic events to the systemic area.
3. Therapy: Therapy means that „*passiert eine Veränderung*“ [“a change happens”] within the tissue. (IP2, 11, 8) IP2 generally calls it a „*Veränderung des Spannungszustandes*“ (IP2, 11, 48) [“change of the stress condition”], as well as IP4. IP7 views therapy as „*Einfluss nehmen auf die Beschaffenheit einer Struktur*“ (IP7, 14, 22-23) [“influencing the constitution of a structure”]. IP1 describes therapy from a biodynamic point of view and tries to strengthen the vitality within the body. He also tries to find out what the system wants from him – and this can be very different every time: for example certain positioning of the tissue and enhancement of the blood circulation. He says that the change within tissue can happen because of revision of the hands’ position or just because of thinking about it. This brings up a topic, that was touched from several IP: “Inhowfar is the osteopath active or passive during therapy?”. To IP3 this question is important:
„Ja, da hat sich auch irgendwie sehr viel verändert, wenn ich so von diesem sehr aktiven Teil in doch einen sehr wartenden Teil übergegangen bin. Am Anfang, da war ich sicher mehr dazu verleitet, mir zu denken, aha, so in Anlehnung an das, woher ich gekommen bin, da ja irgendetwas zu tun. (schmunzeln) Und jetzt ist es aber so, dass

ich es auch kann, dass ich sag, das spürt sich jetzt so und so an, ahm, ich warte oder ich hab vielleicht eine kleine Vorstellung dazu, aber ich versuch möglichst nicht allzu viel Input von mir jetzt dahinein zu geben. (IP3, 12, 12-22)

[“Yeah, a lot changed when I moved from the active to a very waiting part. At the beginning I was more likely to do something (smiles). But now I can wait and feel, oh, that feels like that and I wait and I have anticipation but I try not to put in too much from myself.”]

IP3 knows and also uses the “active approach” to lose the tissue, but he more and more estimates the passive part. According to what he said, he belongs to the group of osteopaths that use the whole treatment repertoire. IP6 also rather appears for acting passively and considers his duty as „*Einfach begleiten. Präsent sein.*“ (IP6, 12, 1 und 5) [“just accompany them. Be present.”] IP7 sees himself on a step of development where he tries to abstract a little bit if activity. Still, he confirms that he is “an average osteopath” who works in a very mixed way.

6.4.15.1 Summary

Communication with the tissue is a complex ability that osteopaths learn during the OT. Ostensible it consists of three steps: Getting into contact, diagnosis and therapy. While making a diagnosis “sensing” is used, meaning all various senses. Within diagnosis as well as within therapy the question about “active or passive” acting occurs. Passivity within diagnosis has already been discussed in chapter 6.4.3.4, passivity within therapy was a matter of this chapter.

6.4.16 Thinking fingers

Also the “thinking fingers” are a “final product” of the osteopathic perception training. The osteopaths let their fingers grow to the ability of sensing, seeing, thinking and knowing and use them intelligent and wise. This verbs respectively adjectives describe the osteopathic task – they have been described detailed within chapter 2 concerning description of the fingers. It has been displayed within chapter 6.4.2.4 regarding intuitive knowledge that the IP consider the thinking fingers mainly as intuitional knowing fingers. Intuitional knowledge is something osteopaths include more and more into the perceptual process, but on the other hand it is a “product” of the perception training as well. In this chapter the “output” shall be summed up. All of the seven IP describe thinking fingers with the term of “knowing fingers”. They consider their fingers as knowing. IP1-5 particularly mean intuitive knowledge, IP6 and 7

mean intuitive as well as cognitive knowledge. Furthermore the other suitable words are going to be described.

IP5, 6 and 7 additionally name “sensing” without giving further explanation. IP5 views her fingers as “thinking”. IP6 does not consider intelligent as suitable and pronounces against it in the following way: *„Wissend, fühlend am ehesten. Also nicht intelligent, da wäre ich nie drauf gekommen. Intelligent – ist ein, ist ein Denkprozess, ich glaub nicht, dass sie denken, also ich glaube, denken tut es weiter oben, also ich kann es natürlich in Verlängerung sehen, aber so wissend, das ist was sehr Wahres, glaub ich.“* (IP6, 12, 26-34) [“Foremost knowingly, sensing. Not intelligent, I would never think of that. Intelligent – this is a thinking process, it doesn’t imagine them to be thinking, thinking happens above, of course I can view it as an extension but more knowingly, it’s something true, I suppose.”] IP6 considers thinking belonging to the brain. IP7 feels that “intelligent” is suitable for the following reason: *„Okay. Das ist, also für mich heißt, heißt spüren, heißt vielleicht, ich übertrage eine Wahrnehmung in mein, und verarbeite diese Wahrnehmung und vergleiche sie mit dem, was ich gelernt habe. Insofern ist das mit intelligent sehr gut passend.“* (IP7, 17, 25-27) [“Okay. For me that means sensing, I mean I convey perception and work up this perception and compare it to what I’ve learned. In this respect intelligent seems to be very suitable.”] Intelligent suits as he works it up cognitively – he compares the currently sensed to what he already learned.

6.4.16.1 Summary

The IP believe that their fingers learned a lot and that the ability of intuitive knowledge is outstanding, as well as sensing.

6.4.17 The way

How did the interviewed osteopath conceive the way to perception training during the OT? As the majority of them described the training as “never ending” – also see chapter 6.5.1 – the question can be posed in present tense: How do they conceive their way? Is the development of their perceptual abilities continuously or does it happen in steps? What is this process feeling like and how are new thing integrated?

The curiosity of the author concerning this question is based on observing her own process. She conceives it happening in steps. That means that she did not regard any noticeable improvements of some time but suddenly was aware of having made a huge step. She cannot say whether there was a “trigger” for this improvement nor had she more or anything special.

The experience of these steps of development had been very fascinating so she took the questions “How did your fingers develop? Continuously or in steps of development?” as a guideline.

IP1, 2, 3, 5, 6 and 7 provide information concerning this question. IP1, 6 and 7 definitively conceive it stepwise. IP3 and 5 observe a continuous development with steps. IP2 cannot make out a special pattern and jokes: „*Ich hab grad überlegt, ob es jahreszeitlich zusammenhängt, aber ... nein.*“ (lacht) (IP2, 13, 49 und 14, 2) [“I just thought if it is connected to the seasons but...no. (laughs)”]

The statements about steps of development in detail: „*Aber es ist so ... man kann ja nicht sagen, das es linear ist, das ist es überhaupt nicht.*“ (IP1, 11, 6-7) [“But it is...you cannot really say it’s in-line, no, absolutely not.”] „*Also, schubweise, würde ich auch glauben, schubweise*“ (IP6, 13, 28-29) [“Yeah, I would say batch-wise.”] „*Ja, das war schon auch in Stufen, natürlich ja.*“ (IP7, 9, 9) [“Yes, it also happened stepwise, of course.”] IP1 does not consider it as an in-line development. He describes several stages in his hitherto learning process that always happened in a similar way:

„*Mh. Ich hab es immer so erlebt, dass ich ... inzwischen kenn ich schon und inzwischen macht mich das auch nicht mehr fertig, sondern eher neugierig. Es gab so, so in diesen Jahren immer den Aspekt, wo ich plötzlich etwas, was ich in den Händen schon gut spüren konnte, plötzlich nicht mehr spüren konnte. Es war einfach ... nicht weg, aber es hat, es war entweder klar, dass es jetzt überhaupt nicht relevant ist, dass ich das spüre, oder es, es hat so die Qualität verändert, dass klar war, na des is es jetzt ober net, was ich brauch. Aber das hat mich, ich glaub ab dem 2. Ausbildungsjahr [der Osteopathie], einige Male in ziemliche Verzweiflung gestürzt, so mit dem: Was hab ich für Hände? Ich spür’s nicht! Und es war aber immer die Vorbereitung für sozusagen das nächste, die nächste, unter Anführungszeichen, Dimension an Wahrnehmungsmöglichkeit, die aufgegangen ist, und vermutlich wird das so bleiben?*“ (IP1, 11, 13-27)

[“Mh. I always felt like I...by now I know it and it doesn’t bring me down anymore but it makes me rather curious. During all those years there was the aspect that sometimes I couldn’t feel some things anymore that I was able to feel before. It was...it hadn’t fallen apart but it became clear that it’s not relevant anymore to feel this or there was a change in quality, of course, and I wasn’t sure whether this was good or not. This made me feel quite desperate the first two years [of OT] , just thinking: What’s wrong with my hands? I can’t feel it! And this was always the preparation for the next

“dimension” of perceptual ability that started and probably it’s going to be like this forever?”]

Ich denk, dass das ein physiologischer Lernprozess ist. So ein, so der Aspekt vielleicht, Innehalten. Es muss einmal Platz werden, dass überhaupt etwas Neues in die Wahrnehmung wieder rein kann. Und dann geht halt, gehen halt die Dinge, die nicht mehr so wichtig sind ein Stück einfach mal weg, raus. Integriert sich oft später dann wieder, mit einer anderen Bedeutung. Also ich erleb’s für mich als was Physiologisches und das muss so sein, damit es weiter gehen kann. So, so spürt sich’s für mich an. Na, es geht nicht verloren, es, es kommt anders wieder. Oder in einem neuen Kontext, oder in einer neuen Bedeutung, oder ist anders ins Gesamtbild eingeordnet, so. (IP1, 12,1 -21)

[“I suppose it’s a physiological learning process. The aspect of back-peddaling. There has to be room for new things within perception. And so things, that aren’t so important, get lost. Often it’s integrated again afterwards but with a different meaning. For me it’s something physiological and it has to be like this to move forward. Yes, that’s how it feels for me. Nothing gets lost, it returns with another meaning. Or within a new context or it’s arranged in a different way in the general view.”]

IP1 experienced that several times – „also sicher 7, 8, 9 Mal“ (IP1, 11, 40) [“at least 7, 8, 9 times”] Every of those stages proceeded in a similar way. First a low that “dragged him down” because he considered it as a regress. He could not sense things, he already sensed before, anymore. The more often this low happened, it changed into joyful curiosity since he knew that it introduce an alteration. It was always a preparation for the next “dimension of perceptual ability.” And to “jump” from one step to the next one, a “back-peddaling” is necessary to work up the things already learned. Because he has gone through this for several times, he is able to understand his own, personal way.

According to IP1 hands have to undergo various steps of development. Every step is important and is the base for the next stage. Something, that initially seems very important, afterward changes its meaning. There is an example from the beginning of the OT where general structural techniques were taught: „Einfach dieses Gefühl von, genau den Rhythmus und die Intensität finden, dass so eine wirklich eine ganz feine Bewegungsreaktion kommt. Wo man das Gefühl hat, man schmeichelt sich so richtig in die Gewebe hinein, also das das erste Mal spüren, das war Initialzündung.“ (IP1, 7, 5-11) [“Just to find this feeling of rhythm and intensity to evoke a really fine reaction in movement. When you have the feeling to flatter into the tissue, that was an initial spark.”] IP1 means the ability to set a “very precise dosed

input” by this, to evoke a reaction of the tissue. IP1 still remembers another step of development that was important for him, this time within cranial osteopathy:

„Und eines der Erlebnisse, also das war ganz, ganz früh das Gefühl, dass ich anfangs Gewebeschichten zu differenzieren. Was hab ich da jetzt wirklich in den Händen? Und das hab ich im Rahmen der Physiotherapie über all die Jahre nirgends wo erlebt. [...] aber es war jedenfalls sehr motivierend, das zu finden das erste Mal. Nein, es ist jetzt nicht der Muskel, sondern es ist die Muskelhülle, oder oh, das war jetzt das eine Muskelbündel mehr in der Mitte und jetzt hat die Sehne mitreagiert. Oder: Aha, nein das waren jetzt nicht die Muskeln, die die Kopfgelenke verbinden, nein das war tiefer, das war das Ligament, nein wahrscheinlich war es die Dura. Also so diese Differenzierung.“ (IP1, 7, 17-33)

[“One of these experiences took place very early, the feeling to differentiate the layers of tissue. What am I really holding in my hands? And I never experienced that during physiotherapy after all those years. [...] in every case, it was very motivating to find that for the first time. No, now that’s not the muscle but the fascia, or oh, that was the bundle of muscles in the middle and now the tendon reacted. Or: Ah, no, that haven’t been the muscles that connect the joint, no, that has been deeper inside, that was the ligament, no, probably it has been the dura. That’s the differentiation.”]

The term “initial spark” mentioned above shows delight and astonishment because of his new abilities. This resembles what IP7 said to describe “cresting” a new stage: *„Na plötzlich geht einem ein Licht auf.“* [“And suddenly the lights came on.”] And furthermore: *„Du hast das Gefühl, ah so ist das, das ist das. Jetzt versteh ich das. Das zu Spüren, wenn du es einmal gespürt hast, spüren wichtig, gespürt hast, kannst du das besser zuordnen und dann beim nächsten Mal, wenn du es wieder, wenn du weißt, aha, dann weißt du, jetzt bin ich richtig.“* (IP7, 9, 17-20) [“You have got the feeling that now you have got it. That moment you understand. If you really felt it one time you can categorise it easier and when you are sensing the next time, then you know, you are on the right track.”]

IP7 often has such light bulb moments that were rather infrequent at the beginning of the OT but became oftener, *„je mehr Praxis gekommen ist“* (IP7, 9, 33-42) [“the more he got used to practising.”] Because of that it got more interesting and it was an important step for him to detect *„den großen Zusammenhang“* [“the whole interrelation”] of the structural, cranial and visceral parts of osteopathy. (IP7, 9, 41-48)

IP2, who cannot detect a specific pattern within his development, describes similar experiences using the term “opening”. Especially inputs from outside were necessary for him to move on in his sensational development:

„Also, ich hab, ich hab so das Gefühl gehabt, ich hab immer so einen Input von außen gebraucht, um das dann im Kämmerlein, also in der Praxis umzusetzen. Und ich hab so das Gefühl gehabt, dass durch den Input sich wieder was geöffnet hat, was dann praktiziert worden ist. Durch das Arbeiten mit dem Patienten.“ (IP2, 12, 16-19)

[“I always had the feeling that I needed an input from outside to put it into. And I felt that something opened because of the input and this has been practised. Through working with the patient.”]

IP2 considers biodynamics after the OT as such an input. He did not give examples for the input within the OT. According to IP2 inputs are an opening for extended abilities that are recessed via training and treating to move forward. IP3 confirms that various experiences and classes support the continuous education next to the daily work.

„Die Kombination macht es einfach aus, dass das immer so ein kontinuierliches Dahingehen ist. Ich hab, ich hab keine Stufen jetzt in Erinnerung. Ich mein, es war wirklich, für mich war wirklich die größte Stufe so von ... es gibt auch noch etwas anderes als hin greifen und sehr strukturell arbeiten. Das war sicher der größte Sprung. Aber da geht es jetzt einfach kontinuierlich dahin.“ (IP3, 13, 11-16)

[“It’s the combination that it moves on continuously. I can’t remember any steps. I mean, for me the biggest step was...there is something else than touching and working structurally. That was certainly the biggest step. But now it moves forward continuously.”]

IP3 considers his way basically continuously after he took a cradle within his development. That is the step from working structurally to “sensing” meaning cranial therapy. In chapter 6.3.1.4 it has been mentioned that IP3 mainly used manual therapy as a physiotherapist, with a lot of force, very “straight” and structural and cranial therapy was very challenging for him. IP5 views an in-line development with stages – on the one hand a development because of long lasting training *„durch den Lauf der Zeit quasi“* (IP5, 7, 23) [“over the years”] and on the other hand stages *„Auf einmal war es da. Aber ich weiß nicht, wie das gegangen ist. Kann ich dir nicht sagen.“* (IP5, 9, 31-32) [“And suddenly it was here. I can’t tell how that worked. Really, I cannot tell.”] This pleasant realisations were predated from identity crisis:

„Ja, die Sinnkrise im, schon einerseits im Spüren, dass ich mir gedacht hab, ich weiß nicht, ich spür überhaupt nichts mehr. Ja, oder, entweder dass ich weniger, oder dass

ich halt das Gefühl gehabt hab wieder, ich tu, ich spür halt das, was ich spüren will. Genau. Ist es wohl das, was ich ... ? Bin es ich? Ist es etwas anderes? Bilde ich es mir ein? Was ist es? Immer wieder diese Frage. Oder, wie soll ich jemals, was weiß ich, irgendeine anatomische Struktur spüren? Wie soll ich vom, von der großen Zehe aus, das, das Temporale in Außenrotation spüren? Dieses ... (IP5, 17, 31 48) [“

Yes, identity crisis, on the one hand within sensing, I thought I can't feel anything. Yeah, more or less, I felt like I do, I sense what I want to sense. Exactly. Is it what I...? Is it me? Is it anything else? This question, again and again. Or, how should I ever sense an anatomic structure? How shall I feel the temporal within the external rotation going out from the big toe? This...”]

IP5 talks about scepticism that arises sometimes – compare chapter 6.4.11.1. IP5 also talks about a low, like IP1, before climbing the next step in perception. Within this crisis he applied the “*best treatments*” as lecturers confirmed. His perceptual ability improved. He expresses his astonishment this way: „*Und ich mir gedacht hab, ich weiß nicht einmal, wie ich das jetzt aufschreiben soll, was ich da jetzt gemacht hab, in meiner Dokumentation, wo ich mir denk, und auf einmal ist so viel gegangen.*“ (IP5, 10, 6-14) [“And I thought, I don't even know how to write it down what I did, within documentation and suddenly nearly everything was possible”]

6.4.17.1 Summary

The question about the pattern of the way of development, whether continuously or in steps, has been answered in this chapter. IP1, 6 and 7 conceive it as “stepwise”, IP3 and 5 tend to in-line with steps. IP2 racks about the pattern. IP1 explicitly describes his “development periods” from low respectively from despair that displayed on the outside while sensing but on the inside was preparation for the next step, to the opening of a new dimension of perception. The same cycle can be observed in what IP5 said, when he talks about identity crisis where he applied the best treatments. IP7 knows how it is like to “jump to the next stage” without a predated crisis, but with a light bulb moment. IP2 and 3 stress inputs from the outside, by means of classes and such things, to open new dimensions of perception. IP3 considers a “*certain personal openness*” as useful to move forward: „*Ich hab schon viel gelernt und es gibt noch viel zu lernen.*“ (IP3, 13, 9-10) [“I've already learned a lot and there is so much more to learn.”] Therefore see chapter 6.5.1, where the interviewed osteopaths talk about the “never ending” perception training.

6.4.18 Companions

When questioned for support during the osteopathic perception training, the IP often talk about certain people. These are mainly some lecturers of the WSO and colleagues. In this chapter it shall be displayed which role they play for the IP, which support they give and what the IP can learn from them.

6.4.18.1 Lecturers

Primarily the lecturers of the craniosacral parts are named but lecturers of other subjects like the visceral, the structural and biodynamics as well. They are described as role models respectively as mentors. Two topics turned out to describe the role of the lecturers more detailed. Those are 1. the way of teaching and 2. the mode of operation and haptics.

6.4.18.2 The way of teaching

According to what the IP said, it was important how classes at the WSO were created concerning knowledge transfer and practical perception training. Basically all of them liked classes. IP1 considers it as „*sehr gut*“ (IP1, 8, 4) [“very good”]. Anatomy, physiology and the biomechanical model were presented „*faszinierend*“ (IP1, 8, 5) [“fascinatingly”]. IP7 agreed since he felt that „*ein echtes Interesse an der Materie und eine Freude am Spüren*“ (IP7, 7, 21) [“a real interest in the matter and joy in sensing”] have been conveyed. IP2 estimates the “*widespread spectrum*” that has been conveyed but also criticizes: „*Die Arbeit an einem selbst kommt zu kurz.*“ (IP2, 4, 32) [“The work on oneself misses out.”]. Opinion has already been discussed within chapter 6.4.3.

IP7 and 6 underline that a good combination of knowledge and sensing has been transferred. Both refer to visceral working where anatomical knowledge is certainly essential but the practical sensing of it is challenging.

„Weil eben in der Viszeralen geht es ja schon auch um Wissen, natürlich. Also jetzt um Basis, also das zu spüren ist ja schon recht etwas Eigenes. weil man kann natürlich sehr viel hinein interpretieren in das, was man, wenn man auf einen Bauch hineindrückt, was man jetzt da genau wahrnimmt. Aber das war schon für mich interessant, wie man das umsetzen kann. Was sich anatomisch abspielt und was man da, was man spüren kann.“ (IP7, 11, 48-51 und 12, 1-3)

[“Within the visceral it is about knowledge, of course. About the basics, to feel this is quite strange because you can read a lot from what you’re feeling when you’re

pressing at the belly. For me it was interesting how to convert that. What's happening anatomically and what you can feel of that."]

This connection of knowledge and sensing had been facilitated for IP6 thus the following sentence of the lecturer from who he had „*irrsinnig viel gelernt*“ (IP6, 8,5-6) [“really learned a lot”]: „*Bei allen visceralen Bewegungen spüren wir auch die embryonale Entstehungsgeschichte.*“ (IP6, 8, 12-12) [“Within all those visceral movements we also feel the embryonic history of origins.”] this theoretical knowledge made the approach to sensing within the abdomen possible for him.

IP3 and 5 refer to the situation that two lecturers taught together. IP3 considers it as „*Glück*“ (IP3, 6, 5) [“luck”], since different aspects of the cranio have been covered. „*Ich könnte jetzt nimmer sagen, der [eine Vortragende] ist für das gestanden und der [andere Vortragende] das. Aber sie haben beide so im Rückblick betrachtet, haben sie beide ein sehr rundes Bild von dem ganzen geschafft darzustellen.*“ (IP3, 6, 38-40) [“I could not say that one [lecturer] stood for something and the other [lecturer] for another thing. They were able to present a holistic image of the whole thing.”] Thereby IP3 means a combination of anatomy/physiology and sensing as well as the approach to carrying out the cranial techniques, whereas a “very structural cranio” differs from a “more sensing way”. Both IPs, IP3 and IP5, initially considered it as confusing to have two lecturers acting together but afterwards they discovered the advantages of it:

„*Das sind zwei ganz unterschiedliche Welten gewesen und ich hab mir gedacht, ich hab keinen blassen Schimmer, von was die zwei reden. Die sollen vom gleichen reden. [...] Dann aber hab ich mir gedacht, siehst du aber, es ist so eine große Bandbreite da drinnen. [...] die reden beide, sind so unterschiedlich und reden aber vom gleichen und dann, wenn ich das so spür, dann wird das schon so sein.*“ (IP5, 8, 25-34)

[“There were two completely different worlds and I thought I have absolutely no idea what they are talking about. They should talk about the same. [...] But then I cognized that there was such a huge range in it. [...] both talk, are so different but talk about the same and I thought, if I feel that, it's going to be like that.”]

IP5 found a lot of confirmation for his sensing because of the wide range of what is possible.

IP7 and 6 talk about the “chaotic and abstruse” classes respectively ways of teaching but still they took along a lot of information. IP7 estimated the spontaneity and authenticity of his cranio lecturer:

„*Ich hab ihn immer wieder so im Vortragen, also wenn er etwas Bestimmtes vortragen möchte und dann darauf kommt, dass er etwas anderes spürt und beginnt dort*

abzuschweifen und dort weiterzumachen. Nur mag ich das, wenn Menschen spontan sind und nicht immer nur sehr strukturiert hinter ihren Vorlagen, Vorlagen herunterbeten. Natürlich hat es mich verwirrt, aber rückblickend hat mir das trotzdem sehr viel geholfen. Weil so ist das Leben und so ist das Arbeiten.“ (IP7, 7, 2-16) [“Oftentimes during teaching, he talked about something and gets to something else and cognises that he feels something different and starts to digress and talks about this issue. I like it when people are spontaneous and not always are so structural, recite their texts mechanically. Sometimes it was quite confusing but when I look back now it helped me a lot. Because life and work are like that.”]

IP7 sees the advantage of this way of teaching in the flexible presentation of subjects and that the approach to tissue is real and flexible as well, like in an actual therapy situation. IP6 considers a certain lecturer as very helpful since he showed him a view on the wide range of perceptual possibilities:

„Der war so hilfreich, weil er die abstrusesten Dinge miteinander verbunden hat in einer, in einem fast an Wahnsinn grenzenden ... eigentlich unfolgbarem Wortgeschwader, (lachen) das aber so viel Impulse gesetzt hat, und so viel Neues, durch die Schnelligkeit, mit der er das gemacht hat.[...] diese Ballung an Informationen, aber wirklich [...] manische Darstellung von Dingen, hat er ganz viele neue Verbindungen ermöglicht. Auch neue Verbindungen, überhaupt, wie könnte man herangehen, um etwas zu spüren. Auf welche Ebene könnte man gehen, ah, ich kann auch wirklich einen Kalziumkanal spüren, okay. (schmunzeln) Ja. Das hat man bisher nicht gehört. Bisher hat sich halt die Tibia irgendwie, wenn man sie geschubst hat, nach hinten bewegt oder nicht. [...] Es war urlangweilig und plötzlich hast du in die Zellen hineingehen können und irgendwelche Kanäle spüren können, das war lustig.“ (IP6, 6, 15-33) [“He was so helpful since he connected the most abstruse things in a nearly insane way...actually not traceable word squadron (laughs) but that set so many impulses and brought so many new things because of the speed he did that. [...] this agglomeration of information, really [...] manic presentation of things allowed so many new connections. On which level you can go, ah, I can really feel a calcium channel (smiles). Yeah, you never hear of that. Up to now the tibia somehow, until you jostled it, it moved back or not. [...] It was really boring and suddenly you could move into the cells and feel channels, that was funny.”]

IP7 is thankful towards this lecturer because he removed him from the connection to the given structural lesions and the *„definierten Stellungen, wie Tibia, anterior“* z. B. (IP7, 6, 49 und 7,

1) [“defined dispositions, like tibia, anterior”] and such preset therapies and showed him a diversity of possibilities.

Another aspect concerning the way of teaching is the respect of the lecturer to the studying osteopath. To IP1, 4 and 6 is this point very important. *„Er [Vortragende der Biodynamik] ist unglaublich respektvoll mit uns als Gruppe umgegangen.“* (IP1, 15, 10) [“He [lecturer of biodynamics] handled this group very respectful.”] IP1 estimates about this lecturer that he supported him during all his steps of development but did not force him to go into a special direction. According to IP1 this tenor, that shows between the lecturer and the students, also influences the handling of the patient, that should be very respectful as well. IP4 tells that he always got *„den vollen Respekt von ihnen [den Vortragenden]“* (IP4, 9, 25) [“a lot of respect from them [lecturers].”]. It was in a very special situation that he – to use biodynamical termini – was able to sense zone B before zone A (normally it is the other way round). The lecturers were aware of that and gave him the liberty to stay at his way of sensing. This support gave him self-confidence. Also IP7 “dotes” about the respectful attitude of the biodynamics lecturer towards the student playing the patient during class:

„Und das war bei ihm zum Beispiel sehr, sehr stark, dass er immer darauf geschaut hat, dass auch immer die, die quasi Patienten spielen, dass die auch immer wohl auf waren und auf ihre Rechnung gekommen sind und das war damals eigentlich der Einzige.“ (IP6, 7, 31-34)

[“It was always very apparent that he always let those students play the patient who were in a good mood and that they also benefited thereby and to be honest, he was the only one doing so.”]

The important aspect is that the so-called patients were well meaning balanced after the training. IP6 brings the quality of the lecturer to the point: *„Er hat durch seine Liebe und Offenheit ganz viel ermöglicht.“* (IP6, 7, 11) [“He made a lot of things possible due to his love and openness.”]

6.4.18.3 Mode of operation and haptics

Within the interviews, the IP reveal that they liked observing the lecturers and “copied” some things of their mode of operation and haptic approaches. They talk about attitude to work and body moves while sensing and treating as well as certain grips and finger positions.

IP1 reports from the first mobilising techniques where he looked at fascinated: *„Also den hab ich einfach immer so unglaublich elegant gefunden, wenn er gearbeitet hat, das ist einfach schön. Also so diese Idee, das hätt ich auch gern, dass das bei mir auch so schön ausschaut.“*

Einfach vom Arbeiten.“ (IP1, 14, 24-26) [“I always thought that he was very elegant while working, that was just beautiful. Of course I would’ve liked it to look the same when I did so. Simply from work.”]. He talks about appealing, aesthetic working and further on from a “dance” within the working moves: „[...] und zwar vor allem das, wo wir fast ein bisschen tänzerisch arbeiten mussten, um in diesem Bewegungsfluss drinnen zu bleiben [...]“ (IP1, 6, 12-13) [“[...] and mainly because we had to work a little bit dance-like to stay within the movement flow.”] IP6 talks similarly about the movement flow and puts it into relation with the patient: „Weil er ja einfach [...] auch sehr, sehr mit dem Patienten, sehr am Rhythmus des Patienten, ich weiß nicht, ob er es so benennt, aber er tut es, finde ich.“ (IP6, 8, 19-21) [“Because he just [...] very much with the patient, at the rhythm of the patient, I don’t know if he calls it like that, be in my opinion he acts like that.”]

IP1 and 7 admire the mode of operation of certain lecturers with the patient’s tissue. IP1 makes a quite general statement: „[...] dermaßen faszinierend zu beobachten, wie sie einfach tun mit dem Gewebe.“ (IP1, 14, 5-6) [“[...] it was so fascinating to see, what they are doing with the tissue.”] IP7 is impressed by the sensual ability of the lecturer and his centered mode of operation:

„Er, weil er eben sehr feinfühlig ist. Einfach auf Grund seines Arbeitens, seines schnellen Spürens. [...] Ich hab gefunden, er hat einen wahnsinnig schnellen Zugang und spürt einfach viel. Er spürt mehr, was dahinter steht und das kann er verbalisieren und bringt die Sache sehr zielgenau auf den Punkt. Schnell. Nicht lange herumfackeln, sitzen, träumen, sondern arbeiten. Ruckzuck. Aber trotzdem dabei bei der Sache sein.“ (IP7, 5, 36-42 und 6, 1-2)

[“He is just very sensitive. Because of his work, his fast sensing. [...] I thought that he has a very fast access and senses a lot. He senses what’s behind and is able to verbalize it and he brings it to the point very clearly. Fast. Not only thinking, sitting, dreaming, but working. In no time. But still he is very focused.”] and further: (IP7, 6, 24-31)

This perceptual ability enables him to make a clear diagnosis.

IP6 is the only one who addresses haptics precisely. “[Ich habe] auch von seinen haptischen Zugängen her sehr viel gelernt.” (IP6, 8, 10-15) [“I learned a lot from his haptic approaches.”] Therefore see chapter 4.2.2, where haptics has already been defined. „Weil er ja auch körperlich irrsinnig präzise greift.“ (IP6, 8, 19) [“Since he also touches physically very precise.”]

6.4.18.4 Colleagues

Next to the lecturers, the colleagues are the humane support during the OT. Already within chapter 6.4.8 the importance of exchange and communication with the colleagues has been discussed. All IP except IP7 estimate the advantage of a group. IP7 mostly worked without the feedback of others. Only with a very good friend and a colleague in his he exchanged. They were very important since „ *das waren die Leute, warum ich dann die Osteopathie auch heute noch gerne mach.*“ (IP7, 5, 31-32) [“those were the people why I still like applying osteopathic treatments.”] The other IP learned and d within groups. On the one hand they “fiddled about” with and “discussed” theoretical stuff, on the other hand they also worked practically. IP2 considers this „*gleichgestellteren Austausch*“ (IP2, 8, 5) [“coequal exchange”] with colleagues, which distinguished from the exchange with “superior” lecturers, as something very positive. IP4 expresses the human quality of this group: „*Wir haben uns einander sehr unterstützt und uns gefördert. Das ist ganz wichtig gewesen für mich. Diesen Rückhalt in der Gruppe!*“. (IP4, 16, 5-6) [“We supported and assisted each other. That was very important for me. The backing within the group!”]

6.4.18.5 Summary

Lecturers and colleagues are important companions during the OT. The lecturers were able to combine theory and practice. Also apparently difficult and confusing situations like having to very different lecturers at the same time or a chaotic way of teaching, may turn out as “luck”. On the one hand it shows various approaches to osteopathic respectively cranial techniques and on the other hand it shows a wide range of “perception possibilities”. The lecturers also stand out due to humane qualities which support the situation of perception training. They are spontaneous, flexible and authentic. They show respect, openness and love to the students, convey joy and give support. Their haptics – „*kein anderer Sinn ist Fühlen und Tun gleichzeitig*“ (Grunwald, 2001, 187) [“no other sense is sensing and acting at the same time”] – motivates to imitation.

The colleagues give the necessary support for learning and training.

6.5 FINAL CHAPTER

6.5.1 „Never ending“ fascination

The title of this chapter contains two aspects. The first aspect refers the perception training or also the perception enhancement of the osteopath that is going on forever. The second concerns the fascination of the osteopathic hands in the way the author and the interviewees perceive it. But also the combination “never ending” fascination is accurate.

IP3 talks about a continuous learning process of the hands and names openness as base for the ongoing process. *„Ich hab schon viel gelernt und es gibt noch viel zu lernen.“* (IP3, 13, 9-10) [“I’ve already learned a lot and there is so much more to learn.”] Also IP5 sees the development of perception in a similar way: *„Genau, so geht’s immer weiter und es wird nie aufhören.“* (IP5, 18, 49) [“Exactly, it’s going on like that and it will never end.”]. IP1 goes along with that: *„Ja, das ist ein Prozess, der einfach Gott sei Dank nie aus ist.“* (IP1, 19, 39) [“Yes, it’s a process, that’s, thank God, never ending.”] IP1 considers the prospect of further sharpening of the perception as very attractive:

„Je länger man sich damit beschäftigt, umso besser kann man werden. Das ist unglaublich vergnüglich. Wenn ich mir vorstelle, dass ich jetzt dann irgendwann mal, so es mir erlaubt ist, ein paar Jahrzehnte gehackelt hab, dann pfau, was kann ich dann noch alles spüren? Das ist auch etwas, was ich sehr faszinierend find.“ (IP1, 22, 27-31)

[“The longer you deal with it, the better you can become. That’s very pleasant. If I imagine to work for a few decades so it is possible, wow, what else am I going to sense? That’s something I consider as very fascinating.”]

IP7 thinks it is very impressive that even lecturers admit, that they are still *„am Weg sind“* (IP7, 6, 2-4) [“on the way”] and have to improve. The words of Barral round this topic: *„Das Gute ist, es gibt gar kein Ende. [...] Ich möchte diese ständige Stimulation, versuchen mit meiner Sensibilität noch weiter zu kommen, mit der Anatomie und Sensibilität.“* (Barral, 2007, 5) [“The good thing is, there is no end. [...] I would like to move on within this steady stimulation and my sensitivity, within anatomy and sensitivity.”]

So what is the fascination about osteopathic hands? Are the IP fascinated as well and by what?

IP1 is not fascinated by hands. But by *„der Form der Wahrnehmung“* [“the form of perception”], which *„so unglaublich präzise und diffizil Informationen über einen anderen*

Körper liefert [...] und wie unglaublich viel Veränderung möglich ist.“ (IP1, 21, 18-41) [“Conveys such incredible precise and difficult information from another body [...] and how much change is possible.”] IP3, 4, 5, 6 and 7 agree that hands as well as the possibilities connected with them are fascinating. IP4 stresses that he can do good things with hands and IP5 again looks proud at his hands to state: *„Aha, ihr macht das.“ (IP5, 23, 26)* [“Aha, so you do that.”] IP6 and 7 do not only see the job-related possibilities of the hands but also within sports and spare time. They observe the sensitivity within osteopathic work and at the same time power and manual strength *„beim Klettern“ (IP7, 20, 34)* [“while climbing”] or while *„Schrank basteln“: (IP6, 14, 22)* [“tinkering a cupboard”] For IP6 it is fascinating that hands are adoptable of various activities. *„Sie lassen mir so viel Freiheit.“ (IP6, 14, 40)* [“They give me a lot of freedom”] IP6 sums up and IP7 underlines that a *„kräftige Hand im Sport, in `keinster` Weise kontraproduktiv fürs osteopathische Spüren ist. Sondern sogar positiv. [...] das ist ein ständiges Auseinandersetzen mit dem Thema Spüren.“ (IP7, 20, 43-44)* [“strong hand in sports isn’t counterproductive in ‘no’ way for osteopathic sensing. On the contrary, it is even positive.[...] that’s a lasting dispute with the issue sensing.”]

7 CONCLUSIO

The paper at hand was conducted by the author's curiosity asking the following question: How can osteopaths train their hands, sense of touch and subsequently develop their perception in a way that they develop *thinking fingers*? How can fingers learn to feel, see, know and think? How do they become intelligent and wise fingers? Which support is given and which obstacles are there to overcome?

The qualitative method of the guideline-based understanding interview was chosen and seven osteopaths were interviewed.

This paper starts out with the two chapters 3 and 4, which are the basis for the subsequent chapters on results. In chapter 3 Sutherland's *thinking fingers*, a term that stands for the dexterity and the skillfulness of osteopathic fingers, shall be interpreted. An osteopath with *thinking fingers* is someone who can sense the state of the tissue, someone who can visualize body structures, who brings in cognitive, intuitive and personal knowledge and makes diagnoses by means of connecting thoughts and conceiving causal relations. An osteopath works with the natural, intelligent forces of the body. Thus he works wisely, which means authentically osteopathically in the sense of Sutherland and Still.

In fundamentals the important terms for his papers are defined, such as "sense of touch, perception, knowledge, haptic, object perceptions, perception measurement, touch" – to name a few. The knowledge of the perceptual process with the factors influencing it builds the frame for the statements for the Interview Partners (IPs).

In the chapter dedicated to result the role of the hands throughout many years is highlighted, additionally to the opening question about hands become "osteopathic hand". An arch is drawn from childhood and its special "manual experiences" via the preosteopathic training with its demands to the hands to the osteopathic training (OT). The IPs explain sensuous feeling experiences which animated their senses and demanded the sensory integration of all senses. Thus the way was paved for more complex sensory integration – including reading and writing, but also the very special osteopathic perceptual ability was prepared. The pre-osteopathic training of the hands demands and extended, higher sensory integration. The IPs list several physiotheapeutic methods, sports, playing instruments and the encounter with

plants and animals which improved the interlacing of sensory impression by getting arranged as sensations in the brain and then being transformed into perceptions. It is the basis for haptic, which is essential in osteopathic training.

The chapter Osteopathic training of the hands, the main part of this paper, answers the author's question concerning the osteopathically working fingers with their support and obstacles.

Four approaches can be observed:

The first approach concerns the osteopath per se prior to the perceptual context

1. Even before the osteopath starts to feel and perceive, he can prepare himself. He can and has to acquire knowledge which he then can bring into the perceptual process. This knowledge includes knowledge from the classes at the WSO, knowledge by reading technical literature, intuitive knowledge which develops and personal knowledge by the osteopath's experience of being a patient. The osteopath is urged to work on himself because he is with *„Körper und seinem Befinden das Instrument und somit der Maßstab“* (IP2, 8, 5) [“his body and condition the instrument and thus the scale”]. With his health care, his development processes and his present condition he can, figuratively speaking, take care of his “body as a tool”. The osteopath is aware, that his present condition can improve or worsen the perceptual process. By personal preparation, like grounding, gauging, opening of all sensory channels and being passive, he can tune the instrument. By the preparation for the therapeutic situation the patient can be brought to relax in order to make the interaction between the perceiving and perceived person possible. It is important for the IPs, to liberate themselves from the pressure of “I have to feel” and “I have to succeed”.

The second approach concerns the osteopath in the situation of perception

2. Mechanism of perception and measurement of perception are of great assistance. The focussed attention is necessary to direct attention to the “object body tissue” which shall be perceived in the first place. The methods Description, Detection and Perception of peculiarities, Recognition and Search facilitate conclusions about the perceptual ability of the osteopath and are the basis for communication about the perceived. Discussing and comparing, if possible, are of great assistance for the osteopath.

The third approach concerns the finger training

3. This paper shows that talent *is* a subject – „talented osteopaths are better” but that training, the procedural training on the patient on one another, is essential for the IPs. It is striking that the IPs move away from the focus on the sense of touch, as proclaimed by Sutherland, and direct their attention on the training of the entire perception. The word “sensing” expresses this perception with all senses best.

The fourth approach concerns important principles:

4. Self-confidence and having fun facilitate acquiring osteopathic skills. Doubt and scepticism about their own sensory ability and the pressure of “having to feel” were retarding factors during the perceptual development. They were overcome by “doing” which is the basis for reassurance which leads to self-confidence. The personal process of recognition, exchange with other and successes in therapies create reassurance. Having fun, an important principle of sensory integration, creates a circle which maintains itself: Joy and motivation for new challenges lead to new skills, which increase fun. The visualisation of body tissue, as required many times by Sutherland, is definitely seen as a support by the IPs.

To sum it up briefly: What kind of assistance does an osteopath receive?

They lie within themselves, by acquiring knowledge and contributing it, by maintaining themselves “healthy”, by preparing themselves and the therapeutic situation generally and by liberating themselves from pressure. Attention is an essential tool for the IPs. The exchange by means of the methods of the perception measurements is of great assistance. Training “sense” is facilitated by visualisation and self-confidence and fun are the “sizzle that sells the steak”.

The amazing “provisional end-product“ after hours, days, weeks and years of training *der Hände, Augen und Ohren und des Geistes des Behandlers* (Becker in Sutherland, 2004, II, 10) [“the hands, eyes, ears and the spirit of the therapist”] are *thinking fingers*, which are predominately described by the IPs as intuitively knowing fingers. By “finger training” respectively the perception training during the OT the fingers of an osteopath receive a large tool-kit. They learn structural, craniosacral and visceral techniques. Certain early skills are individually exercised by the interviewed osteopaths or parts are left out. The communication with the tissue is a complex skill which the osteopaths acquire during the OT. It consists mainly of three steps: establishing contact, diagnosis and therapy.

As a conclusion of the chapter dedicated to results the profile of the development is described and companions are presented. All IPs see steps which – together with previous lows and apparent loss of the ability to feel – lead to new dimensions of perception. Colleagues and lecturers are important companions who are characterised by human qualities, because they convey respect, openness, joy and support.

What are the actual results of this thesis?

The answer to this question is given in the main part of the chapter dedicated to results in this thesis: The osteopathic training of the hands.

The previous chapter describe the role of the hands prior to the OT and their significance. This is not essential for the answer to the author's main question. But they introduce the main chapter and reveal interesting facts: The IPs give an insight into familial and personal matter where – additionally to the professional field – the hands have a specific importance and thus allow a better understanding of the role of their hands and their decision for OT. Furthermore it is astonishing that for some the value of the hands increases through the professional use in osteopathy and for others it declines, because during the OT other senses “seem to be trained as well” and thus become more important than the hands. Sensory experiences told and experiences with material of the environment, with the human body and during different manual activities show the individual background of the later osteopathic skills. According to Ayres (2002) the concatenation of all senses, meaning the sensory integration, is the basis for later skills. By listing pre-osteopathic professional and non-professional skills a better picture emerges from which fields the osteopaths come and how they “tool-kit” is equipped already and what proves easy or difficult to them during the OT.

One could say that the first chapters prior to the part dedicated to the actual result could have been kept shorter, but the author wanted to show the individual paths of the seven IPs.

The answers in the main chapter dedicated to results are of importance to osteopaths in general and for training. The following approaches emerge:

1. The IPs mainly realised that for themselves and did it autonomously, because according to them this fell short during the OT. Maybe this aspect can be addressed and integrated more during class.

2. The preparation of the therapeutic situation is an aspect which should receive attention in everyday practice where many patients are treated and stress can emerge.
3. One aspect everybody knows but nevertheless will be mentioned once again: No osteopath can escape acquiring knowledge and practising. It is interesting that intuitive knowledge has a certain value and personal knowledge from oneself being a patient provides important information.
4. Every method of perception measurement mentioned such as description etc and the thereby possible exchange about the things perceived are used during class at the WSO. Nevertheless some of the IPs think that this could be encouraged more, because they only get to know this “space for exchange” during their postgraduate training in infantile osteopathy at the OZK [Osteopathie Zentrum Kinder – Osteopathic Center for Children]. Whereby the IPs note that practice and knowledge had already been taken to a further level while doing the training for infantile osteopathy than during the six years and therefore exchange might have been easier there.
5. Aspects like focussed attention, applied visualisation or motivation and joy are of assistance to the osteopath.
6. Furthermore it might be calming to know that the path to *thinking fingers* can be taken in steps, when an increase in extended sensing abilities can arise from a seeming cessation or even a setback.

The for the author most striking result of this work consists in the osteopaths coming back to their “natural, immediate perception” through their perception training, because they develop fingers than, additionally to sense, are able to smell, hear and taste. A gift that children have, according to Wagner, and which re-emerges among osteopaths and is called *Sensing*.

For this thesis a “small but mighty“ group of osteopaths was interviewed and their statements provide results which cannot be seen as representative for all osteopaths. However, the number of seven is sufficient to discuss the “THE tool hand” and to highlight their role and important components for their development. There is the option for other to dig deeper into certain aspects of this thesis, of commenting critically on them and to qualify them. Here are a few suggestions: Is visualisation really of assistance, as stated here, or rather confusing for some? Do osteopaths really wish exchange? Is a conscious work on oneself required for learning how to sense well?

By the author covering a very broad range – maybe too broad – from childhood until the time posterior to the OT, plenty of material was collected which had to be processed. The chapter post-osteopathic training was part of these interviews but the statements in question were not included in this thesis, because it would have been too extensive and not important enough for this thesis. But the broad range provides the advantage that the role and the development of the hands could be described very well and presented the process very well, but on the other hand provides the disadvantage of not going deep enough into some statements.

The author carried out the guideline-based interviews with great enthusiasm, because it served for satisfying her curiosity, but it had technical weaknesses, such as background-noise, which led to difficulties during transliteration. The author tried to follow the principles of the understanding interview as closely as possible.

This thesis can be seen as a *Indiziensammlung* (Wojna, 2006, 5) [“collection of evidence”] which gives first answers to “hands and manual skills” and also suggestions for further studies. Maybe one or the other osteopath can find interesting answers and possibly classes at the WSO can benefit from this or other similar studies.

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