

CI meets Taiji

*"How the Chinese Martial Art **Taijiquan** can help to deepen and broaden one's understanding of the fundamental concepts of **Contact Improvisation**."*

Interview between **Paris Lainas** (<https://shujian.at>) and **Christoph Pickl** (<https://crashcoursecontact.org>); November 2024, online (Vienna/Amsterdam).

The interview was done in three main parts:

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(1) Movement Qualities

1.1 About Grounding

QUESTION:

what is "grounding"? what's the difference to "earthing/rooting"? how do you achieve it (exhale)? what is it NOT? its applications?

UPFRONT:

- externally not much (or even nothing) visible, no change
- working with gravity, through relaxation
- muscle relaxation allows being more sensitive; quicker reactions, as "tension masks sensation"
- if there is too much relaxation, there will be a collapse
- summed up: always about balance/moderation/the middle (avoiding extremes; physical and mental)
- naturalness of taijiquan, where positions "find themselves"
- applications: a buffer, indulgence, soft, elastic, deform; for explosion/pull/push
- in martial arts: to destabilize the center of the other (competition); in CI: to support the center of the other (collaboration)
- too much (and too little) of anything is bad; extremes; the dose makes the poison
- also with grounding: if the center point is too low, and the legs get heavy, there is no agility/adaptability anymore
- grounding has to go into the lower belly, not too deep (ground) otherwise too stiff
- rooting taijiquan: good connection with the ground, minimum effort
- prerequisite: whole body's structure must be permeable, to allow flow of force into the ground and back again
 - also: coordinated alignment, to be able to relax (low muscle tone); for body and mind
 - coordinated mental alignment = direct attention to bodily sensations/movements; clear distinction of yin and yang (activity/calmness, burden/relief, contract/relax, ...)
 - coordinated physical alignment = relation of all body parts so that they support each other and the center
 - coordinated mental relaxation = sourced in alignment; mindful practice leads to calmness, body will relax more
 - the breath can be used as a connection between body and mind; slow, conscious exhaling activates the parasympathetic nervous system (reducing stress, restlessness); or you can simply observe its automated self-doing
 - coordinated physical relaxation must happen synchronously; requires a calm and attentive mental state
- externally: visible as an impression of elastic solidity
- internally: struggle to stay upright, calm, relaxed and balanced
- relaxation (letting go) is always directed towards the center
- body structure will get firmer/stronger with getting stiffer
 - inner pressure lowered by surrendering; to reach to the outside from within
 - use muscles as little as possible; that's how they maintain their (re)action-potential
 - the other tissue (tendons, ligaments, fascia) carries the weight/tension
- tradition states: on the inside hard like iron, on the outside soft like cotton wool
- differentiated between body regions which are assigned yin (receiving) and yang (giving) qualities
- yang regions are loosened; they redirect ascending force to the outside (e.g., the back, outer sides of arms/legs)
- yin regions are even more loosened; they redirect received force into the center and the feet (e.g., chest, belly, leg/arm inner side)
- by releasing/dissolving, the whole body interconnects; every point connected with the ground
- the resulting quality is very elastic, permeable and stable
- to maintain that state also in movement, you must not disturb it through uncoordinated tension
- to relax doesn't mean to be limp/flabby/lax; use of minimum effort, to maintain external form
- in application, possible to receive force, store it in connective tissue, and then either give it back (counter-attack) or dissolve it, let the enemy run into emptiness, make him fall, and add that force into his (down-)fall
- the powerful force behind a taijiquan punch

TRANSCRIPTION:

- rooting
- = connected to the ground, with minimum effort
- to be able to transmit/distribute incoming forces (gravity, kinetic force from outside; a push/pull)
- it's like balancing, a constant/dynamic process (there is no absolute, fixed point)
 - usually unconscious; micro-movements; thinking/talking; internal (organs); even breath influences balance/body structure
- two main ingredients: alignment and relaxation
- 1. alignment: body can support itself
- 2. song quality {or is it "song"?!} (=relax, let go)
 - but not flabby (without losing one's external shape)
 - minimum effort of muscle tension; replaced by internal, elastic, connected tension; able to receive/perceive/store; like rubber
 - relaxation starts in the mind so that the body can follow
 - first parasympathetic work: mindfulness, breath/exhale
 - to allow doing nothing, to do the non-doing, real "song"
 - through song, inner force, opening (kai) from the inside (song kai)
 - ultimately every connected with each other, every point in body, own and others, and ground
 - not only relaxed and aligned, but coordinated, dynamic alignment; relax mentally and physically
 - to align to gravity properly: as little energy necessary to stay upright
 - and also to one's center (dantien)
 - but also all (bigger) joints have their center
 - inner structure: each supporting each other: wrist supports elbow, supports shoulder, supports scapula, supports spine
 - outer structure: fascia/tendons/ligaments
 - ultimately, that muscles can max. relax (more sensations/feeling possible); to be more "response-able"
 - mental alignment: attention focused onto the body/movement
 - like throwing a bone to the puppy (less capacity to get distracted)
 - the concept of rivers: keeping them open, and not blocking them (tension; closed joints/narrow angles; raised shoulders)
 - yin/yang categorization of movement/body is very basic; no complex conceptualization required; immediate experience is just there by itself, effortless
 - soft/hard, slow/fast, away/towards me, up/down, rooted/uplifted,
 - it starts with the mind, then the body follows
 - focus on lower body, pressure on soles of feet, exhalation
 - relaxation, just like movement, is a coordinated process
 - just letting go my shoulder, doesn't automatically mean that my body is relaxed
 - maybe one is more relaxed, but then the other is more tensed; body will not be straight
 - in taijiquan warm-up (sang gung fung): all about becoming aware
 - to be more conscious of the weight of the body
 - to relax single parts more consciously; yet everything must relax; in a coordinated, centered manner
 - the relaxation has a direction: towards the center, which itself points downwards (a connection to the ground is thus established)
 - nothing needs to be done to root: only align and relax
 - everything else are methods/tricks to make that easier
 - to relax the mind more, to open the joints (bent knees/hips; springy quality of the legs)
 - without these it's still possible but more challenging
 - softly bent, like the natural shape of the spine; upright but not held tightly (with unnecessary force/muscle tension)
 - the ultimate goal: finding a neutral, comfortable, natural state for all body parts
 - everything has its center
 - it's basically about (internal) perception, and self-exploration
 - finding proper alignment (implementing/executing) requires sensing one's own body (proprioception/feeling)
 - if you can feel proper, every part will find itself naturally in its right position
 - not to hold it tight, but to "swim in our joints/tissue"
- ad application:
- connection is the base for any application
 - the body will become receptive, like a cushion; delaying, creating more time to interpret (information) and act
 - creating spacetime, through body and mind quality, easy to adapt one's own structure to the situation (e.g., taking a step)
 - being able to take in incoming force, and store it (to release again; either giving it directly back, or letting it "disappear")
- trying to maintain an elastic posture; allowing the body to "shape-shift" (shifts/morph its shape)
- also additionally: "quality of strength"
 - it can be quick and explosive; or more permanent and pushing; or pulling or grabbing (=closing)
- in taijiquan (as a neijia wushu, a method), the application is in the martial arts aspect
 - following taiji principle, we can apply it everywhere in (daily) life
 - e.g., opening a door / holding open a closing door
 - or in dance, sports, weight lifting, massage, ...
- what is grounding?
- robust/firm standing/stance? or connection to the floor/ground? the image of roots into the ground?
- contradiction of controlled letting go; balance between collapse and stiffness; soft yet strong, to increase stability
- and why?
 - to be reliable (in dance/acrobatics); to be able to be lied on; to support
 - to not lose once center/balance easily, to be more "indifferent" (a bit Stoic)
- vs earthing? more psychological, internally; more down to earth, facts, material; less flying up in the sky, airy, lala land, ethereal
- the more advanced someone is, the less external change is happening/visible
- yet, there will ALWAYS be some external change (muscle tension); just not visible by the naked eye anymore
 - when a muscle relaxes, it shrinks (in volume/space)
- thus, as beginners, we need to exaggerate, and make things huge because our sensory utilities are not fine-tuned enough (resolution too low; not zoomed in enough)
- this change in grounding-relaxation is also perceivable via touch: let a person be tense, touch him, then he relaxes, then you should feel a change in his connective tissue
- not being relaxed, often means not being centered
 - connective tissue/muscles are still strained/closed
 - relaxation allows joints to rest in its optimal/natural position
 - this will (has to!) lead to a change, which is also visible in a (tiny) movement
- don't try to imitate the master, by not moving, getting stiff/rigid
 - it's not about total stillness! there is a bit of movement, like a tree, passive; yet stable (deep roots, firm trunk)
 - it is more about the principle; the outer shape will follow
- imagine starting with a terrible posture; stiff, joints locked, not upright
 - when starting to relax/center/ground, there will be a lot of visible movement happen
- most taijiquan teachers claim: every movement is a sequence of postures
- but maybe (also) the other way around: every posture is a screenshot captured of a movement (a more dynamic approach)
- stillness, a fixed position, is just a human mind made up concept (the universe is in a constant flux; nothing is constant)

- we would need to put great effort to keep the body absolutely still; and even then, we wouldn't achieve it 100% (see CI's small dance)
 - there is breath, blood circulation, slight vestibular micro-adaptions
 - it's very theoretical, like 0 degrees kelvin in physics: nothing is moving
 - it's an asymptotic goal: we can only get closer (very close, actually) but we will never be able to reach it
 - also in physics: 0 was never measured
 - yet, we are talking about human level of perception; we are totally far away from the atomic scale; irrelevant to us
 - just as quantum mechanics is irrelevant for classical mechanics
 - just as the fact that there are no separate entities is irrelevant (useless, maybe even counterproductive) for the human experience (yes, there is a spoon!)
- same mentally: in the deepest meditation, there is no absolute stillness
 - even while sleeping, there is activity
 - only achievable when one is dead
 - it also seems to be not to be the goal
- Daoism classics: dao de jing / lao tse, chuang tse, lia tse (basically a rip-off, of the other two)
 - lia tse: the one who flies with the wind
 - goal: mind not trying to hide/exclude something; tries not to hold on (to a thought); same as with mindfulness practice (goal is not emptiness/stillness, but a higher awareness/consciousness)
 - thus: same also physically: not about total stillness, but about letting be, and letting go, in awareness
 - whatever happens, happens because it's stimulated internally or externally
 - in any case, we try to support, to continue whatever is (and not harshly change/interrupt it)
 - movement is happening out of imbalance; the goal is not totally 50/50 balance, as it would not be able to give birth to movement/dynamics
 - when "standing still", we constantly swim from imbalance to imbalance (CI's small dance)
 - you could call it "dynamic balance" (not constantly, perfectly in the middle)
 - in the middle it is silence; stiff; unmovable; through polarity it creates dynamic; life is dynamic; balance is dynamic
 - conclusion: any willful suppression of natural adaption is wrong (=not in alignment with universal principles of existence)
- is grounding/rooting only relaxing into gravitational pull towards earth's center, or can I ground into the force of a partner?
- first connection is not into the ground, but with one's own alignment with the middle ("dantien" called in taijiquan)
- not only gravity, but also body mechanics: we are not a stick; we have joints and structure
 - try to be less of a firm stick, but more like a dynamic ball
- the center is in line with gravity (with earth's center)
 - resulting in a stronger/heavier structure
 - something used/experienced in push hands exercise
 - I'm like the earth, he is like the moon; I have much influence on him, he little on me; he touches me slightly, immediately feels uncomfortable because my center of gravity is stronger
- in taijiquan, we don't like (yet it happens) to fold the center of gravity in the middle, where the hands have contact
 - we will lose our center of gravity; like two sticks leaning on each other (shared center); but one relies on the other; none of them has their own center
- in classical wrestling, they do "build a bridge"; sharing their center, leaning on each other
 - because it's not relevant whether to fall on the floor, but more to be on top when going to the floor
- in taijiquan, we try to create such a strong center through grounding, that the opponent leans on us, but we not on him
 - at least theoretically, it's the (asymptotic goal): in reality, when things happen quick and lots of force, there will be a dynamic interplay of balance and imbalance, of leaning and grounding
 - not about how to maintain balance, but how to get back once it's lost
 - have strategies to regain balance: relax, or maybe shift weight, or perhaps make a step
- many of the following questions here are based on what has been said here
- grounding, and its essence, what's needed, etc. encapsulates already much of any other further/more complex quality
- grounding is the prerequisite for other things to happen

1.2 Grounding vs. Floating

QUESTION:

what is the relation between grounding (center of gravity) and floating (center of Leviathan)? as in: lower body yin/stable, upper body yang/soft, like a tree.

UPFRONT:

- taiji-grounding implies floating in the upper body
- use intention to sink the center even below the feet but at the price of adaptability (extreme grounding)
- structure of stance in taijiquan like a tree: a gradient of firmness
- center downwards, the structure is solid and elastic
- center upwards, towards hands, solidity gets less (useful in boxing)
 - mobility is important in the area between shoulders and hands; elasticity can receive and exert force
- one could see the body's center as the most stable area
- esp. practical when quick/light footwork required (steps, kick, jumps)

TRANSCRIPTION:

- grounding = center of gravity VS floating / center of leviathan
- base grounds, flyer floats (as in acrobatics)
- analogy of a tree: the body separated in lower (grounded) and upper (float)
 - in taijiquan, this is already included in grounding; a cone-shaped structure
 - heavy, but elastic and adaptable above
 - wind can't break a tree, not because he is so strong, but because he is so flexible; like dead, dry, brittle sticks, easily breakable; but a simple blade of grass, a tornado can't damage, as it's too soft, and too small
- an elastic quality allows grounding
- otherwise would need to pull oneself with force towards the floor; with tension
- it works too; some systems use that; but it's not taiji-grounding
 - taiji prefers a different approach, to allow for more adaptability (respond freely, change)
- having the center of mass in the chest is not really used in taijiquan, as this system is based on grounding
- it is nevertheless known and sometimes used; e.g., kicks/double kicks
- quick and strong inhales to make oneself light and bring the center of mass up
- midair already switching to grounding, to have a bigger impact on landing (crushing bones/joints)
- but taijiquan has few kicking/jumping techniques; it is rather grounded, close-quarter
- movement principles in taijiquan:
 - first: spirals (round/circular, any direction)
 - second: waves (linear, more front-back)
 - when waves made bigger, they travel up to the chest

- just to repeat: the CoM is in the center, not in the chest, but also not in the feet, or even lower (some confuse that!)
- not lower than the center, as it comes at the price of adaptability
- can't dance around, quick moves, even shifting weight
- adaptability > grounding; to be able to shape-shift
- for a brief moment, same as with up, we can also go extremely low with our CoM (if required), but we usually don't stay there
- context defines good/bad:
 - in acrobatics, when doing handstand, having the CoM in the chest is of advantage
 - jumping is difficult when the CoM is in the center; impossible when it is in the feet
- every part of the body can be a center, especially the main structures/joints; thus a CoM (at least thought, with the idea/intention)
- in Chinese medicine, the chest is the middle center, the head the upper (dantien the lower)

1.3 Yielding

QUESTION:

what is "yielding" for you? where are its extremes (collapse)? how do we achieve, and where to apply it?

UPFRONT:

- yielding is a prerequisite for adaptation (to gravity = grounding)
- the essence of adaptation is yielding = evolution, survival of the fittest
- to invest into losing (German motto: "ins verlieren investieren")
- collapse put differently: "being sloppy/lax"
- yet, on the first touch, never resist; but not like paper
- soft/elastic resistance, yielding quality
 - like a ball pushed underwater, unintentionally wanting to come up but by itself so
 - Chinese word for nature "zeran"; ze=self, ran=in this way/correctly; "to be as it is"
- to resist is not a desired attribute in taijiquan
- BUT: that doesn't mean that we are sloppy/weak
- taijiquan is known for its stance and to maintain its space
- firmness is created through relaxation
- rooting, as well as "resistance", is actually a receiving/observing/adapting/yielding
- opening the inside (kai, or peng), achieved through coordinated relaxation (song), gives the body an elastic quality (next to firmness and rooting)
- through deformation on the surface (receiving external force), the inner firmness increases; like squeezing a rubber ball
- this enables us to be more sensitive, interpret more, and act accordingly

TRANSCRIPTION:

- yielding necessary to develop good "song" quality
- let go of the idea that you can achieve anything with (more) muscle tension (in the context of taijiquan)
- it's more about developing "inner strength" (lu vs. jing)
- Chen Man Ching: "to invest into losing"
- it's less about accumulating/more, but more about getting rid of, less; until only the essential is left
- not about holding on; forcing it; closing/stiffen
- yielding: to not even start to fight if you know you are going to lose anyway
- "on the first touch, never resist" -Chen Bing
- but not to be extremely soft like paper
- there IS structure, but don't push against
- it's about developing some soft, elastic properties (for adaptability)
- the essence of adapting is yielding (to give in)
- e.g., think of evolution and natural selection; a species needing to adapt to new environmental conditions (cold); it doesn't fight against it (temperature), but change themselves (more hair)
- accepting of what is, making the best out of it
- in taijiquan, the best = maintain one's center
- grounding could be considered adapting to gravity; thus yielding necessary again
- in partner exercises: force comes from that person
- in standing exercise: force of gravity pulls in every point of our body
- and we yield to any of those forces; without losing our structure (relax, not collapse!); staying upright; not resisting
- standing meditation (like "small dance"): there is no incoming force, but gravitational force pulling on every point of our body
- we yield to that "pressure" (force), as much as possible to maintain structure (stay upright)
- every system strives for balance (the body for homeostasis, physical for entropy)
 - when we push into something/someone, we get an equal force pushed back into us (newton)
- it's a continuous process of relaxation within tension, but not a static state
- to maintain is to hold; there is no such thing as "staying relaxed"
 - there is just a "constant yielding with gravitation", in combination with internally erect against it
 - this needs to be practiced; first it's active (effortful), later it becomes an automated habit

1.4 Push, Pull

QUESTION:

how do the aforementioned qualities relate to push/pull?

UPFRONT:

- what's a "sideway push/pull", and is it even semantically possible (based on the definition of push/pull)?
- one dimension, just direction different; it's relative...
- is grounding a prerequisite for push/pull?
- thinking of a gravity-free space, nothing can be received/stored (pushing oneself away; impulse-theory)
- in taijiquan, pulling is considered a yin-quality
- a movement/force directed towards the center (proximal)
- to shove/push/thrust is considered a yang-quality
- a movement/force directed to the outside (distal)
- in both cases, the center must be maintained
- if someone pulls us, the elasticity will give us some time buffer

- we can follow, and push into the pull, so that the other person will be hurled away (=“fortschleudern”)
- his own force is acting against him (our force added to his)
- if someone pushes us, the elastic reception allows us to interrupt the push by a quick pull
- the attacker loses his balance
- taijiquan uses a partner exercise (sparing) called “pushing hands”, where these dynamics can be practiced well (and carefully/softly with each other, not against each other)

TRANSCRIPTION:

- pulling has two aspects:
- external aspect in application, obviously
 - in partner exercises, we get pushed or pulled
 - can be imagined just like with gravity: just the direction is different
 - the challenge is to align the gravitational vertical force with the pull coming from the opponent
 - so that they “communicate with each other” and the body can redirect them downwards
- structural aspect: pulling the top of the head upwards; not tensed up, but like suspended in the air/heaven/sky
 - creates an inner dragging/pulling power, elongating (doing so without lots of muscle effort => tension!)
 - to avoid too much tension, we drop the tailbone downwards (the opposite of pull is here not push but song/song kai quality)
- push-pull: operating on the same dimension/spectrum; one is inwards (towards the center), the other outwards (away from the center)
- every definition has a relative reference point (although from outside it might look different); in relation to my center/-line
- taiji philosophy is all about that everything is relative
- optimal alignment, neutral joint position, ... how my position is (relative) to the other’s position; how does it relate/adapt
- to not only be well aligned within myself but also in relation to the other
- possible to answer a push with: grounding, evasion, yielding (=“nachgeben”), or pull
- possible answer to pull: grounding, give in (go quickly into, conquer space, “seal” his arms), disconnect arms (open them; using spirals)
- for push-pull and any application: basic requirement is always to have good grounding
- first redirecting force into the floor, then into the arms; if the connection is direct, this happens almost simultaneously
- we cannot push-pull anything without support (the floor); think of astronauts in space
 - if you have a wall behind you, you can push strongly (now just redirect/bend the force into the ground)
- taijiquan punch is done with the whole body (quick and explosive)
- force into feet, over back into the arms
- pull is similar: quick and explosive; in friendly partner practices, we do it slowly (safety! sensitivity)

1.5 Reaching, Extending

QUESTION:

what is “reaching”? what is “extending”? where would you see the difference?

UPFRONT:

- those terms are rather uncommon and not used in taijiquan
- maybe reach yes, but not extend
- more commonly used in the term of expansion (“pang jin”)
- reaching is used to establish connection (between me and the opponent)
- extension could be interpreted as elongating
- elongating to establish a connection, or to bridge/narrow distance
- e.g., during pushing hands (Chinese “tuishou”), when being very close, the arms have to go up above the head
- extension, thus, would be a tool of range, whereas reaching can also be applied in close proximity

TRANSCRIPTION:

- extending: increase once distance, expansion
- make oneself moves bigger, to occupy more space
- the closer we are, the more we extend sideways/upwards/downwards, as the arms have no space between; to extend once reach “externally”
- also, while retreating, hands stay positioned in 3D “absolute” space, extending while moving back
- reaching: always necessary in Tuishou/pushing hands, partner exercise
- to make contact essential; long or short distance (doesn’t need necessarily extending)
- through sinking, uprising force generated, can be used to extend arms; everything starts to open
- arms can even be head height, still feeling effortless
- taijiquan qualities: maintain structure, permeability, elasticity, listening
- the whole structure needs to change, when a single point is being changed; like the surface of a ball
- the middle point though stays the same, the center is truly maintained, while everything on the surface changes
- everything is moving synchronously in relation to each other, and everything in relation to the body center

(2). Partner Connection

2.1 Reading Other

QUESTION:

what and how do you read/feel in another person; while in direct contact / in distance? what do you consider?

UPFRONT:

- feeling whether someone is grounded; whether just stuff or truly soft-strong
- lot to do with intuitive feeling, unconscious processing vast amount of information
- better to “let go”; let “it” do it, not be too conscious
- too little time to consciously process (get info via looking; first contact and shortly before punch; ...)
- how to apply martial art skills in partner dance which are more free/improvised (less Salsa/Tango, more Lindy Hop/Zouk)
- considering taijiquan is more competitive, and dance collaborative
- to get this intuition: do we need to work/train hard for it (experience), or is it given by birth?

TRANSCRIPT:

- in distance:
 - reading a person (un-/conscious), nothing to do with "aura feeling", but solely visual input
 - body posture: his intention (aggressive, ready to attack, hesitating, calm)
 - structure: grounded/rooted, within the own center of mass, weaknesses (e.g., injuries)
 - range: how far does he get with a step (length of leg, charged jumping leg)
- in direct contact:
- intention: feeling the push before it is being executed
- structure: like in distance; smallest deviations of balance can be felt
 - even breath can reveal something (keep the breath in the dantien, otherwise the center of mass is lifted with every exhalation; this way, an attack can be easily predicted, when someone inhales strongly to exert force)
- force direction: where does it come from/want to go to
- force quality: explosive, constant pressure, strong/weak
- body quality: body hardened/stiff or soft
- shifting of weight or rooting
- immediate sensation whether other has better/worse roots
- this has a lot to do with empathy; to put myself into your shoes
- we can't look inside the other, but through experience, we learn to recognize certain patterns
- based on my own body, or past experiences with others
- determine the quality of their structure/alignment/grounding; minor issues/tension in body parts
- psychological: which state is he? aggressive/fear? relevant in a fight situation?
- the posture of fear: general tension (more than necessary), CoM high, protective shape (rounded, shoulders inwards, head down, protecting the front/neck/vulnerable parts, offering the back/more robust/shields; tilt pelvis forward)
 - also happening with stress symptoms; related to fear
- fear is just one step away from aggression
 - a calm person is less aggressive because they aren't afraid
 - aggressiveness is usually a secondary emotion, covering up fear; a protective measure, defense; to feel threatened, injustice, not entitled
- the other extreme, completely open, offensive posture
 - also fear, just "escape forward" instead back (flight response)
- by being "bombarded" by sensory input and subconscious perception, it will be aggregated, resulting to an "intuitive feeling"; without conscious analysis
- basically forming an impression, built on all our past experiences and matching the pattern within ourselves (running a simulation)
- when there is touch, we realize faster the other's intention
- not relying on "tendencies" anymore; e.g., seeing fear is not a guarantee, but a tendency of potential physical violence
- before a punch, there is a slight tension before that can be trained to be receptive to it
 - a simple inhale can be revealing (synchronizing with the breath of the other)
 - that's why part of taijiquan training is to hide one's own breath from the outside (mask our intention, not being able to be read, act incognito)
 - if the breath is in the lower belly, the chest stays empty, and the arms don't reveal our intention (preparation); e.g., through mixing common and inverted breath
- touch is essential in taijiquan, as we get information we need to read intention
- information e.g.: hesitant, offensive; reading structure;
- belly/chest/back engaged when applying pressure; can you feel the legs/feet/ground underneath? reading internal connection of him
- if the structure is weak, we can easily break it
- thus, breath is important
- force direction and force quality:
- where does the other come from, where does he want to go? reading vectors?
- being able to interrupt his action, at the very last moment, not giving him a chance to adapt
- to feel when he is uncertain, jerky movements; not really knowing where to
 - has no plan, or no method, or not sensitive (not knowing which direction the right one is; speaking of leadership)
 - out of desperateness (not knowing better), randomly try something, no determined force
 - easy to overcome that person with a bit of rooting and adaptability
- some people are very tight, holding on, pressing, tensed
 - elbows pushed into his body, leaning, unbalanced
- when the other is producing explosive force, suddenly lots of power generated through the floor, whole body
 - immediately know (sense) to get out of the way (German motto: "weg ist das ziel")
- to gain information requires time; time we get through grounding/sinking/elastic structure
- not only feeling movements of the arms/upper body, but also the lower
 - whether someone is changing distance; fill the space on retreat, move back when too aggressively rushes forward
- arms are not that important in taijiquan for observation, more about the center and the lower parts
 - well-trained arms protect almost automatically with a good method and a habit (pattern) of being in the right spot at the right moment
 - e.g., not just dropping both arms, or extending both forward, so there is no defense left (basics)
- know right away who is stronger/more stable; can I "over-yin" (playing satellite, fine-sensitive, technique) "over-yang" (rough "tank" sufficient) him
- parts of the intention are possible to be perceived through touch
- we can't read minds, we can't know what the other had for breakfast (maybe smell it, though)
- although taijiquan is ultimately about fighting (self-defense, overcoming the opponent)
- it is not about winning, but about connection (connection leads to success)
- "to give up on yourself", letting go (ego/wanting); becoming as observer, adapting
- rather passively being moved by the moment and the partner; not doing, but realizing potential (Japanese: "mushin")
- being in contact, to communicate; exchange forces/kinetic energy; a punch is a question we can respond to
- it's a discussion that can escalate to a struggle/fight, but doesn't have to be
- he wants to fight, but I don't respond with counter-aggression
 - when he uses brute force, but I don't reply with hardness/stiffness
 - when he tries to grab, but there is nothing firm to be grabbed
 - to be like a mirror, and the other might lose interest, as "it takes two to tango"
- dance and taijiquan are different though when working with centers
- in partner dance (collaborative) we might want to support the partner when feeling that he is not grounded
- in a fighting situation, we try to unbalance the other, destroy his center and groundedness (while protecting and hiding our own)
- in both, we want to connect our centers, gain information, and work from the core
- if you have the basic skill underneath, you can use it for any purpose: the two underneath being one
- the method, and what we do though, is based on the same aspects
- the feeling necessary to manipulate the structure of the other (whether to improve or dismantle)
- Chinese expression to describe certain movements/movement qualities:
- peng, lu, ji, an; an = push (sometimes also pushing downwards)
- (artificial) exercises, a choreography, a routine/framework; let yourself be guided
- as in karate (Japanese master: Gichin Funakoshi) they say: the form must always stay the same, and done precisely as instructed; yet, when applied, it must never be the same and always adapted
- when more advanced, able to let go of that routine (exercise); more improvised
- things happen so quickly, in a fight and also an improvised dance
- impossible to consciously process all the information

- better rely on unconscious processing of all the subtleties (visual cues, mirror neurons, micro-expressions; possibly molecules in the air via smell), and let it communicate to you through "a feeling" (Jedi skill)
- when you "feel energies", nothing more (according to current understanding of reality) than that unconscious processing power
- we need to let go of consciously understanding, mental effort, being aware of the "why", the reasons behind, and just "go with the flow"; trust gut-feeling (let the universe/dao guide your movements); intuition
- that skill, those interpretations can be trained only when practicing slowly (then also maybe being more aware of them); in the application those things usually disappear under the surface
- the more advanced, the less a concrete idea will exist on what to do, and the more guided based on skill and experience
 - to have no idea, no plan; only focus on maintaining center, connection, and feel... easy to adapt, even when things go very fast
 - only difficult, when trying to mentally comprehend and having fixed ideas (what to do next, wanting!)
- as a teacher, difficult to demonstrate, as there will be a wanting, a fixed idea on what to do, thus often won't work (forcing it); won't be able to get the right quality; a paradox
- practice together, create a situation, as natural as possible, to practice something
- of course, it's an artificially created laboratory situation, still...
- work together WITH your partner, thinking about what to give, so he can practice the appropriate receiving method
- some students (deliberately? unconsciously?) want to make it as difficult as possible for their partners
 - ego expression of showing one's strength? but none will be able to practice properly
 - giver: too tensed up wanting, wanting to win; no technique, no quality
 - as receiver: more about survival, not losing, whereas growth is wanted instead

2.2 Sensing Centers

QUESTION:

what is "sensing the other person's center" and how to achieve it?

TRANSCRIPTION:

- similar to the above...
- it is possible to sense the whole movement-state of the other person
- it is possible to figure out the center of mass of the other person
- "the one who controls the center of the other does not need to fight"
- moving in someone's negative space; without touch contact
- through looking definitely possible
- also through peripheral vision (unconscious processing again)
- through practice, also possible to quickly read people you see on the street
- being able to evaluate "yes, this person has a strong stance"; develop a feeling for it
- it is involuntarily, there is no way to prevent it from happening; we "must" process that info, creating a feeling/felt sensation
- we use our own body as a reference, to infer how the internal structure looks like (in a certain position)
- at least roughly it is clear where the CoM is, by only visual cues; good first impression at least
- it is possible to sense the CoM (with eyes closed) and only a touch on the forearm, yes, BUT:
- it requires that the partner is giving some kind of force (like leaning, or pushing)
 - for center connection, a certain oomph-quality is necessary
- AS: an empty hand/arm doesn't provide any information (useful to apply in a fighting situation)
- "empty hand": no connection from hand to center; no "channel" (medium) to read through it

2.3 Shared Center

QUESTION:

what does "shared center of mass" mean, and does it have any relevance in taijiquan?

UPFRONT:

- building bridges: to connect two (wrestling) people
- to be connected with the other: "shared grounding"
- we avoid "leaning on the other person" (same as in CI)
- not always possible to avoid, but definitely not preferred in taijiquan
- rather prefer to maintain one's own center, and offer the opponent instead the song kai structure (as support to lean on)
- he will move his CoM in the direction of that contact point
- one's own CoM stays in dantien though
- if you take away that support, he loses his balance for a moment, enabling time to execute an action
- "only when you can control your own CoM, you can conquer someone else's CoM"
 - to enter someone else's yard and claim it as one's own
- the other person will feel immediately uncomfortable and unstable; desire to fight/motivation decreases
- if both have a shared CoM, no one can be "empty", without danger of losing one's balance if one uses too much weight/force, danger of falling to the floor together

TRANSCRIPT:

- in taijiquan, we try NOT to build a shared-center, though! (in contrast to CI)
- although a bit, it will happen anyway...
- we want to maintain our own CoM; by relaxing/song/grounding
- if other puts his weight on your center, that you still have control over the situation
- in wrestling/judo, the centers are put on top of each other, so they don't have an own CoM anymore
 - the goal is to go to the ground anyway; to fall onto the other and dominate him there
- traditional taijiquan, the body is upright (and not lent forward)
- legs might be a bit more exposed/in danger, but take that risk to maintain one's CoM
- need to be quick, flexible; not too much grounding, as costs our adaptability
 - there are exceptions, though, for a brief moment, to apply it as a tool; just as "empty hands" technique
- when people in CI learn grounding, this often leads to stiffness/rigidity at the beginning; exaggerated
- when having to take a step, it's like a tower falling over; lightness missing to stay flexible
- in the European taijiquan community still like this, that this is the desired goal
 - china is different; more focus on "feeling the force"
- again: don't focus on the floor/feet, but on the lower belly, to avoid stiffness in grounding

- legs need to be light, agile, mobile; also potential to root; to quickly take all weight in
- we ground, yes; we lean, yes, on our own center (not the partner's)
- through gravity, everything is stacked; leaning vertically on each other
- it's more like an idea, not (physical) reality
 - it's not like the belly is the center and the legs float around in the air
 - there is a gradient, tension lower (legs) higher than upper (arms)
 - the center is the gateway, where force is directed through, connecting down-up/legs-arms
- for beginners, it can be helpful though to allow them to lean on their partner at first
 - to avoid getting into a pure muscle strength battle, more about feeling of/adjusting to directions
 - to have these experiences of things, follow smoothly by themselves
 - when we tense up, we get rigid, we feel less; and even if we feel, we are too stiff to do something
- when people get unbalanced, they have the tendency to tense up even more, worsening it
 - instead of letting go (German motto: "ins verlieren investieren"), the only situation; drop, sink, relax
- during practice, we avoid leaning on each other; in application/reality it still happens sometimes
 - e.g., a natural "counter-leaning"
- to hide oneself (one's center), through disconnection (or uni-directional connection), essential in fighting
- in dance, the opposite is the case: we want to connect, open, obvious, visible
- things are more visible in the chest, shoulders, and arms
- mechanics/method of dance and martial arts are not that different
- CoM outside or inside; in Taijiquan keeping it inside, stay firm, using ground to receive/expel force
- e.g., climbing: CoM needs to be relocated somewhere else; hanging upside, better have the CoM in the chest
- e.g., balancing/slack lining: two small centers, more above (big pole), gives more time to react
 - working only with tiny movements (otherwise balance gone)
 - the longer the pole for balance (walking ropes over canyon walking), the more fine-tuned the rebalancing

2.4 Kinesthetic Resonance

QUESTION:

does taijiquan work with "kinesthetic resonance"?

UPFRONT:

- something like empathy, mirror neurons, intuitive imitations, feeling what others feel
- mirror: to do the same, or do the opposite, but definitely connected/impacted, react on other's acts
- being strategic (chess), to put yourself in his shoes (predict/expect), choose appropriate actions
- mirroring is a very efficient method in fighting
- not expressing aggression, but staying calm
- that's demotivating for the other, and maybe he loses interest to fight (unconscious mirroring)
- "an avoided fight is a won fight"
- through adapting the external movement, we mirror the other, and pretend to let him in the lead
- not much effort is required, and aggression calms down
- as: who wants to keep on fishing for the other permanently?
- the one who gives himself up deliberately can also be active at any time
- intuition and empathy are crucial aspects in every fighting system
- does the other actually want to fight? how does the other touch you?
- once it gets fast/rushed/dangerous, we can't always trust our own observation
- if you stay calm and "collected", you have time to sense
 - outwards, into the other; and inwards, inside oneself
 - then, the correct reaction will come, totally by itself

TRANSCRIPT:

- empathy, mirroring (mirror neurons), imitating...
- when seeing someone else, i (unconsciously/automatically) imitate, I feel inside, and project that inner feeling onto the other
- that's how we know how the other feels (empathy)
- something esoteric people sometimes call (due to lack of better knowledge) "to feel the other's energy"
- this copying goes way back when we were children, and observed our caregivers
 - we use imitation as children to learn; to adapt to our environment, to establish social connections (important for our survival, as dependent children)
- some basic emotions seem to have a universal/cross-cultural (thus genetically based) in how it is expressed in body/face
 - thus, we have an innate, automatic (unconscious) feeling for some expressed emotions of others ("feeling his energy")
- the evaluation of the other person's state can only be based on one's own experience
 - additionally, we could learn theoretically about those things; as we might do when studying about body language
- taijiquan doesn't use this specific term, but it's all the time about establishing connection (distance or touch)
- to adapt (to fit in) means connection, without connection no adaptation; no adaptation when ignoring the environment
- empathy is a conclusion back to oneself (feel with = German "mitfühlen"); relies on one's own experience
- empathy is not external but internal; only an external observation, with which we resonate with (can compare/pattern matching) because we were in the same/similar situation
- in taijiquan, we try to be a mirror to the opponent; it is tough to attack a mirror
- to either literally mirror, or a more abstract adaptation as a complement to his movements
- the idea of a mirror: he is offensive, i am defensive; he is hard, I am soft (the daoistic taiji philosophy of yin and yang)
- it is a form a strategy on how to deal with any situation: in a fight, in games (chess, go), sports (ball/team), romantic relationship, business (negotiations), ...
 - e.g., imagine you have to play a board game you don't know, how to maximize chances to win (or at least not lose quickly): simply mirror the other person's moves
- in martial arts/Wushu/Budo (Taijiquan, Aikido) it is NOT about winning; it's not a sport
- in fighting sports (boxing, MMA) it is indeed about winning, ego, competing, hierarchy, comparison; infinite exploitation of own resources for a never-ending growth (like the economy is doing these days)
- it's about not losing (not getting injured, not dying), it's defense
 - not about to injury/kill the other (this might be a necessary side effect, a necessity to survive, but that's not the primary goal)
 - in the past, martial arts were used for military use (Russian Systema, Israeli Krav Maga), where offense and destruction of the enemy was indeed the main purpose; but not anymore (weapons, rockets, drones)
- in aikido, we go one step further: no enemy, no opponent; just trying that neither of us gets injured, while the other tries to attack me
- "an avoided fight is a won fight" -makes much sense now considering this aspect
 - to run away, to de-escalate, to calm the situation down... all a "win" in that sense
- in martial arts, psychology is a very aspect
- every good martial artist has a good sense for the other person (un-/consciously reading faces)

- requires empathy: to put myself in the other person's shoes, and thus anticipate the next move (strategic advantage)
- not to be taken literally: I don't feel the physical pain of the other, but... to have sophisticated guesses about the other's rough state/intentions
- thus: strategic games (like chess and go) help sharpen these required skills; empathize, predict, adapt
 - also during a fight, or a dance, or a conventional discussion...
 - don't just immediately do something, but wait a moment
- instead of immediately replying with resistance/a "no", but receive from the center
 - allows for empathy; why does he say that (even if totally irrational; independent of being true/correct)
 - usually the underlying reasons have little/nothing to do with me; no need to (verbally) talk back
- who of us didn't have a shitty day, and we were grumpy and ventilated on (innocent) others? and even worse: they would fight back, not being able to see what's really going on (of course not, as we are not transparent beings)
 - that's of course an ideal, we can try to strive for, but we are humans, and being human means suffering
 - "Life is not easy. Life is very harsh. We have to be strong. Otherwise, life will destroy us."
 - "Do you want to have an easy life? Then always stay with the herd and lose yourself in the herd." - Nietzsche

2.5 Personality and Body

QUESTION:

how much do you see/experience a relation between personality and body characteristics?

UPFRONT:

- personality traits, as in: mis-/trust, risk-taking/-aversion, patience/restlessness, ...
- body characteristics, as in: muscle tension, movement patterns, etc.
- in Chinese martial arts (wushu) it is said that it's fairly easy to guess which style someone is practicing, by someone's character
- many external styles (wei-jia; like Shaolin Kungfu, or modern karate) use aggression as a driving force to overcome fear and physical limits
 - those people usually show also a fiery temperament/elbow attitude in their daily life
 - the center of their personality is success/achievement/winning
 - the one that is stronger and faster, tougher, more aggressive will win; but this has its limits, and will decrease by age
- internal style (Neijia; like Taijiquan, Baguazhang)
 - nourish calmness, relaxation, letting go; not faster/stronger, but more adaptable/flexible (yet maintaining minimum effort, an appropriate amount of brute muscle force)
 - the one who is more sensitive will win; no limits, even in old age; yet way more difficult to achieve, takes more time, and especially less developed in the beginning
 - those people are usually calm, friendly, and have no strong opinions; sometimes a lack of ambition
 - they choose their battles, let go where not relevant; they can be stubborn when it's important to them
- what we do, shapes us; the way we are shaped defines what we do (chicken-egg problem)
- different training shapes the body-mind differently
- body posture has a strong interaction with the mind; bidirectional effect
- reading body posture: is someone curious, shy, unsatisfied, negative
- with age, those things can also be read in the face, but the body talks much earlier

TRANSCRIPT:

- mind-body connection is bidirectional (ultimately one, but for human-simplified reasons we consider them as separate)
- we can see in a body: trust, patience, fear, joy... posture, tension, movement pace/quality
- this reading skill is usually automatic, and especially unconscious
 - as a teacher, this needs to be a bit more conscious; to be aware and work with it, verbalize it
- not so much about personality, it's a smaller part, not so fundamental
- more about how live life, experiences, activities
- our environment, parents, peers; role models, gender-stereotypical imitation
- we can also influence/partly choose our environment (work, friends; esp. as an adult), thus shaping ourselves indirectly
- in China: when people train martial arts properly, with dedication (only few do that), one can see which style based on their character
- Wing Chun/Xingyiquan: very direct, using elbows to get what they want, ruthlessness; successful/effective approach (in our society)
- taijiquan/baguazhang: "whatever" type, useless people in our society, no edges, don't need to go against and rebel; live in their own little bubble, own (psychological) center; safety in oneself, not having to prove, simply feel/know
- bodybuilders have a firm structure, but also rigid
- difficulty grounding; relaxing chest and arms
- the bigger the muscles, the more difficult it is for them to keep the arms at shoulder height for a longer period of time
- the other extreme: people who do nothing physical, sit in front of a screen at work and at home
- much movement comes from the wrists (instead from the center); stiff shoulders; no arm-body connection
- still can be efficient/minimalistic
- old people: fine motor skills developed; based on experience, know their own body better
- although not being professionals... that's maybe why taijiquan masters are usually old: it requires time to feel your body, to get to know it; being more and more
- it's about being economical; young people are wasteful (they have enough, but don't move/live efficiently)
- another temporal direction: not only past influences my present... can my present movement practice influence/shape my personal state of being/my environment even?
- yes, that's what happened to me; first aggressive as a young, and external martial arts made me even more aggressive
- taijiquan made me calmer, relieved from aggressiveness, less being annoyed/bothered by things
- BUT: chicken-egg problem: maybe my personality has chosen taijiquan?
 - we prefer to choose what is known to us; difficult to break out of a circle/pattern
 - e.g., always deciding the same romantic partner, leading to the same harmful situation because that's what we saw as a child; unconsciously prefer to stay in the comfort zone; if we want to break that pattern, we usually rationalize why not.
- we cannot change ourselves, from within ourselves though; we can change what we do, what we surround ourselves, that changes our thoughts/expectations
 - merely meditating, and imagining what we would like to be; thoughts/feelings/words don't matter, acts do
 - compassionate loving kindness meditation... might have its right to exist, but not sufficient in itself
 - daily meditation practice is great, but keeping it there is useless, waste of time; real meditation is real life
 - in the spiritual community, many methods are abused for escaping reality, not to improve it
 - meditation helps us to be more aware, connect to ourselves, and potentially gives us insight how to act better from a place of mindfulness; to reach an ultimate state of objectivity, transcend our human ego being; to see and know when/what/where is right
 - <https://en.wikipedia.org/wiki/Ziran> => mastery
 - meditation is not bad, but the way it is wrongly done; it is possible to do the same with taijiquan: doing it once a week for 1 hour, won't change much, useless; although it is promoted often being so healthy, but... commercialized, superficial, no real essence, no effectiveness
 - "Waste no more time arguing what a good man should be. Be one." Marcus Aurelius
- most of the people don't like themselves, but they also don't want to change themselves/lifestyle/lifestyle/environment

- they want that problem to be solved; but they also have difficulties with endurance/persistence/commitment
 - once the feeling of change arises, they get scared, and drop it/run away (and rationalize their decision to maintain self-esteem, to lie to oneself and feel comfortable; confirmation bias)
- taiji principle: everything is constantly changing
 - learning to let go, give in; go with, adapt (just as in dancing as a follower)
 - this WILL change personality, yes, for sure. but it requires time
- practicing taijiquan becomes truly useful/worth the investment, if it goes beyond the practice itself, and changes your life
 - "karate doesn't start when entering the dojo, and doesn't end when leaving it"
 - practice your grounding while in a stressful situation with someone, or do you lose your center and get stressed out?
 - can you let go when the other tries to convince me of something I don't agree with? can I just listen, or do I immediately push against (without even listening, out of habit)?
 - we are all human, we all do that and have our blind spots; but with diligent practice, they can become less (in frequency and severity)
- taijiquan is for sure healthy as a movement practice, but the real value lies much deeper and is much bigger/impactful

(3). Other

3.1 Intention and Attention

QUESTION:

how much do you use intention and attention, and other mental/visual tools?

TRANSCRIPTION:

- we use images to move, which result in different movements; easier understanding of complex concepts
- like crutches, too abstract otherwise for our minds to comprehend
- similarly the meta-physical concept of qi in taijiquan
- "yi activates qi, qi activates jing" (yi = intention, jing = movement)
 - qi being an information transfer of these two entities (mind/abstract and body/concrete); the holy trinity
 - the idea/will is the first spark, ignites "something" (using qi as a placeholder concept, as it is unknown; qi = air)
 - something is happening we can't see/feel/perceive (like air, or the steam coming from rice)
 - and suddenly, there is movement, due to our will
- yin (passive, attention), yang (active, intention)
- yang = (Chinese yi, one of the 5 spirits in Chinese medicine) intention/active, yin = attention/passive
- taiji principle: yin-yang; we use the basic dynamic of doing and non-doing to move
- doing always starts with intention / intention creates doing; then letting go, and switch into attentive state (periphery vision/listen/feel)
 - while doing (yang is strong) we can't listen that well (yin is weak); that's in the nature of things
 - intention requires focus (concentration)
- attention is open presence (wide/big, like periphery vision)
- concentration is focused presence (narrow/small, punctual)
- are there non-led/intentional movements, which go by themselves? e.g., throwing?
- is it actually possible to move my body directly, or is there always some "hidden layer" in-between?
- layer translation: (we usually operate on layer 0-1)
 - an idea of an activity (1) to neuromuscular connection (0)
 - e.g., we don't really reach for a cup, although that's the layer we operate on; because underneath, certain muscle fibers are being contracted by neurons (which is beyond our perception)
 - in taijiquan (1-2 layer): abstract principle, of yin/yang (2) and idea of an activity (1)
 - feldenkrais for example, puts very much attention on layer 0, all the details and subtleties there
 - where is CI located...?
- metaphor of Asterix and Obelix (neuroscience):
- Asterix makes the plans, like a fine pen/dagger
- Obelix executes those plans, a primitive hammer
- the images we use to move our body, significantly changes the way we engage our muscles
- Chinese philosophical meta-physical concept of qi as a tool (an abstraction, yet not reality)
- using it for our intention, to improve our movement execution
- intention is actually a rather short moment; not the whole movement execution is filled with it (but many different approaches there)
- like a trigger of a pistol: the trigger is the intention; the bullet flying is filled with attention (no intention required)
- the earlier we let go of intention once the trigger is pulled, we can go quicker into the attention state
 - if we punch with our fist throughout the whole flying through the air with intention, we don't realize (missing attention) that our opponent has already raised his defense shields and evaded our trajectory, and threw something against ages ago
 - while in a focus mode (focal point), we don't realize this (closed, tunnel vision; no open awareness)
 - focus mode also ignores the internal sensations; relevant to keeping balance
- intention is like an ignition; can be released quickly again; similar to how we use muscle tension: build up and release quickly once more, to maintain lightness/gentleness
 - don't lead the movement, it won't be smooth; they are usually sloppy, or just edgy/jerky; too tight; not adaptable
- a push is a lead movement until the end, but a thrown punch is lead only at the very beginning, then let go
 - within the martial arts concept of boxing, it can be considered as bad, as we need quick, explosive movements
 - within medical application, these intentionally led movements could be beneficial (relative/context)
 - within dance: lifting someone, leading movement is useful
 - the function/application determines what important/correct is
- it starts with intention, followed by letting go, and finally the movement happens
 - letting go makes it easy to adapt
 - leading is control; controlling what we want to feel
 - to let go is to stick (adhesiveness) effortlessly to your partner; to lead is to actively need to chase him
 - adhesiveness, to follow effortlessly, without looking for it; like water: filling the space in between (mushin principle)
 - it happens through structure and the idea of movement and trained body quality
 - only big movements need slight correction occasionally
- general art might require intention as well, but what it requires more is dedication
- like in zen: when you eat, you eat; when you sleep, you sleep; fully, with full attention; doing only one thing and one thing only, being in the present, not already planning the future or ruminating about the past; hold your horses, stay focused
- when you practice, then it's like a fight; not like as in tensed up or hard-working or image being attacked...
 - but with the same attention and care with your movements, as it would be a question of life and death
- and later, fight as if it would be practice/play; relaxed attention, like when playing; fearless, worry free, no over control
- if overly attentive, it usually leads to over-control and tension

- the body's connective tissue is elastic, built from chains; thus there is a delay
- we can't lift the finger; maybe we need to activate the bone structure/joint; or the surrounding tendon; whole forearm connected; perhaps first activate the shoulder/chest; ... infinite chain of movements; not consciously innervated
- all happening automatically in the brain; its function to coordinate our body (un-/conscious actions)
 - it simplifies our body control on an extreme high abstraction level
- it is said, if we needed to regulate the function of our liver just for a few moments, we would go crazy and then die immediately
 - even lifting a finger, fully consciously down to the neurons, it would be far too complex to compute consciously
 - not only energy inefficient, but it would bring us an eternity to do all that consciously
- yet, there is an approximation to do that, when practicing body awareness
- e.g., when trying to change existing patterns; being aware, analyze, and then improve
- trying to maintain balance; to lift arm without tensing up shoulder
- we can only understand our movement in terms of a overly simplified model (but never reality itself, also not meant to)
- taijiquan uses such a model, but not meant to be taken literally; doesn't happen for real in the body
- levels:
- the lowest level: what's "really" happening? atomic/molecular level, proteins? neuromuscular? fiber contraction?
 - inaccessible to us, otherwise we would go crazy
- mid-level: idea of a movement in the mind
- the highest level: abstract principle; yin/yang (close/open); instead of the idea of punching, or muscle contraction
 - a model to learn how to move efficiently
 - at the beginning, yi (intention) is essential; without a direction (e.g., open), no clarity
 - not necessarily clarity about what to do, but to initiate the direction so that it happens what we are keen to do
 - e.g., "I want to push him" - "I would like to extend my arms, and maintain my CoM" - "I would like to reach the force over my back, while letting it go on the front side"
 - ultimately, reaching a state where we control the intention itself (everything is already connected with each other)
 - while practicing, the connection is from outside in
 - when we use yi, actions happen from inside out (simply think about the idea "open", the joints/connective tissue)
 - to mobilize the yi in a natural/proper way
 - taijiquan uses both directions, inwards/outwards; both qualities; two which are one; philosophy

3.2 Muscle Tonality

QUESTION:

how do you regulate your muscle tonality/tension during practice?

TRANSCRIPTION:

- muscle tonality = amount of tension/contraction in the muscles
- there is a default, baseline/norm tonality, we have, even when not engaged in movement; standing, and even when lying
- how can you practice more from within a healthy center? to be not too stiff nor too sloppy?
- we require a muscle tone; otherwise everything would collapse (homeostasis is balance, not in one or the other extreme)
- to open from within, to expand, to be full; "fullness" in taijiquan is a form of tension
- to yield into gravity => to gain tension
- taijiquan uses more the concept of "body tension" instead of "muscle tension"
- fascia, and tendons, yes, support a lot of tension; muscles only contract
- (or do some muscles maintain tension? seems ineffective...)
- holding tension = keeping up the muscle contraction; myofibrils (myosin+actin) require ATP to do their thing
- doing so over a longer period of time makes sick; like when chronic stress (headache)
- the question is: how much body tension is necessary to support my structure, and thus keep balanced (the actual goal)
- taijiquan uses an exaggerated practice of relaxation/release; extreme soft practice but without being sloppy
- we try to "swing" ourselves into the healthy middle; most people are too tense, few are too sloppy (need more tension)
- people differ in tissue and bones: being proportionally shorter/longer
 - some people are "constantly being stretched"; too big bones for short tendons; base level is high tension
 - that's not necessarily bad tension, as there is little/no holding tight (passive structure)
- some people are hypermobile, tendons/connective tissue too loose, muscles need to compensate (active structure)
- usually/interestingly, the too-loose-people experience more difficulties than the too-stiff-people to reach middle
 - middle = to release and yet stay stable
- we need to acknowledge and respect our by-birth-given tendencies, and stay realistic with what's possible
- high tonality prevents us from moving suddenly and quickly; not being able to adapt; quick contractions are difficult
- low tonality people love standing meditation; tension is built up by trying not to tense up ;)
- different kinds of tension: not activation of muscles/contraction, but more fasciae work (as when lying down)
- fascia is more able to maintain tension over a longer period of time (muscles are not built for that)
- too long in the typical computer position, shoulders/chest/arms... tissue hardening/thickening...
- taijiquan tries to reach a minimum effort
- ultimate goal: find balance, distribute tension across the body
- shift from where too much towards where too little
 - like in shiatsu and the theory of the "energy ball": we are always 100%, just not distributed well
 - or economy/wealth: there is enough; enough resources on the planet, but we have a distribution problem
- the difficulty: to feel where is too much/too little
- when on the back too weak, the front is too strong; some areas of the body are too long, others are too short (via contraction)
- people with too much tension might need to stretch more, to create more space, make joints more movable
- there is nothing better than movement to release tension
- to hold tension, and moving (conscious muscle activity) are counterparts
- when tensing muscles, the tension in the rest of the connective tissue gets less
- thus, muscle tone gets lower while moving
- EMS (electro muscle stimulation) is different: muscles (during stimulation phase) are constantly activated
 - the other extreme, muscles totally relaxed, and everything done by connective tissue would also be too much
- there is no movement anymore; movement is not only staying silent
- in taiji we try to find a balance; a sweet spot from where we can move and stay silent
- the concept/quality of "peng" = elasticity, inflating capabilities
- a cyclic movement method is necessary, always coming back to this "collected state" (stable from within, attentively watching), and actively moving again
- to constantly just sit (in front of the computer at work and at home) is an extreme and is healthy
- and so is constantly just standing (despite that it's being promoted, standing desks) not healthy
- it's not about one thing being perfect: standing, sitting, lying
 - it is about movement, constant change
 - many sophisticated people also agree here: "the best position (sitting) is the ever-changing position"

- to listen (feel) to the body's needs and constantly adapt (nothing to measure in numbers, nothing absolute)
 - not to follow 8 hours of sleep, 10k steps, 2 liters water, and 90 degrees sitting; feel and adapt instead
- too much activity exhausts, too much inactivity deteriorates; etc...

3.3 Physics

QUESTION:

how much is physics important for taijiquan?

TRANSCRIPTION:

- extended initial question:
 - or biomechanics/anatomy in a broader sense, and classical mechanics/gravity in a narrow sense?
 - do you use terms/concepts like vectors/momentum/centrifugal force/ballistic (throwing fist, explosiveness)/lever technique?
 - or "nature-o-logy" or "nature science" as it is literally translated from the Dutch language
 - how about Chinese terminology of force/energy, a la peng/lu/ji/an...?
 - just see how wonderful our human body is, what it can do, when trying to redo it yourself:
 - https://www.youtube.com/results?search_query=boston+dynamics+atlas
 - how difficult it is, our daily human movements: try to redo it, tell a machine how to do it... amazingly difficult
- in dance, usually function follows form (function=effectiveness/efficiency/health; form=aesthetics/impress/express/looking good/performance/acting) VS expression (might not have aesthetics; modern dance/butoh)
- professional-competitive sports / martial arts: form follows function (goal is more pragmatic)
 - it has to work; what works is right
 - how to determine which is better? two people enter a room, one leaves, the other one is being carried out
- as physical objects (our human body) we obey physical laws; movement is mechanics; everything we do, thus, must ultimately be in alignment with physics
- taiji = natural principle; similar to physics
- or "nature-o-logy" or "nature science" as it is literally translated from the Dutch language
- a lot is based on observations of the nature and deduce general statements/laws/principles
 - Daoists observed nature, like water and its "behavior", and would generalize it to the laws of people and the universe
 - observing the change of the seasons (Wuxing, the 5 phases)
- we humans share all an intuitive concept of physics; even if we can't be conscious about them and express them in formulas
- any form of movement (sports, dance, martial arts): we have to deal with gravity; a constant force affecting us
- without gravity, no structure/adaption... we could all be like squids, without bones
 - even a squid needs to use his muscles efficiently to optimize movement
- in space, we would need something different... impulse engine like...? spitting ink?! ;)
- physics is the foundation in taijiquan; helps with orientation in space
- balance aligned how gravity pulls on us; depending on our individual body structure (joints, bones, tendons...)
- additional complexity, as we were never supposed to be standing upright (bipedal rather evolutionary recent and adapted)
- without tail, to stabilize balance, we need to be even more fine-grained in sensitivity/alignment
- how to deal with force; e.g., lifting weight is a rather complex movement (snatches with olympic bars); alignment, structure, dynamics, timing...
- comment on that: is the goal A) to lift max mass or B) max the stimulus for the muscle/intensity
 - if A) efficiency in movement is the way, if B) then we deliberately imbalance ourselves, making it more difficult, less weight but higher intensity
- is it also about aesthetics (body builder), to simply grow muscle mass? or is it about functional strength?
- in any of these cases: they all use physics
- in martial arts (on the battlefield) we can't allow ourselves to be inefficient
- in professional sports also not
- in professional dance, sometimes aesthetics wins, and sacrifice physical effectiveness/efficiency
- in dance: function follows form/aesthetics; with some exceptions (like abstract art maybe; or Japanese Butoh)
 - perhaps not about "looking good", but at least strong in expression (the essence of art maybe)
 - especially modern dance more expression; classical dance (ballet) more aesthetics (extended standing on toes!)
- in martial arts: form follows function; application looks the least aesthetical maybe in demonstrations/performances (movies) it looks more pleasing for the eye; more about expression
- similar with drawing/painting: the goal usually is "to look good"
- physics is also relevant when thinking about punching, throwing, ...
- punching so that the fist comes back after throwing it
- a paradox: to punch we need to tense up; to tense up means to contract; but to contract is the opposite of to extend, which is to punch
 - to only contract parts, like the triceps? no! as we need the fist to fly on a straight trajectory
- more like a short, quick, explosive movement; ballistic process; immediately relaxed again after the "explosion"
- the fists/arms are being thrown, instead of punching (and even less than pushing)
 - they are not constantly being moved/conducted, but only for a brief moment speed up and then let free
 - similar to sword fighting (Japanese laido); let it happen, let it flow, don't intervene too much (empty mind/mushin; raizen; dao/zen)
- lever techniques as well: fixate a joint to get leverage
- simple physics; short/long leverages; target of the leverage; which/where fulcrum
- which body parts used for leverage; which end of the leverage am i?
- everything that is in movement is physics
- thus, everyone who is professional, and uses movement, benefits from knowledge about physics
- what's force, energy; gravity; vector; momentum, inertia, impulse (state of motion of a mass); kinetic/potential energy, ...
 - constantly, through gravity, we have impulse available, connected with potential energy
 - those things should not be confused with each other
 - punching is not kinetic energy but impulse transference
 - using force (contraction) to change state of motion (arm travelling through space)
 - on impact, this force changes the other person's state of motion
- different kinds of collisions (impact of objects):
 - (perfectly) elastic/inelastic: <https://en.wikipedia.org/wiki/Collision>
 - when two (human) bodies collide (a punch), then there is a collision
- taijiquan practice aims to get closer to an elastic body
 - being "inflated and round", to be more like a ball
 - being able to receive and store incoming energy, without deformation
 - energy is "lost" through deformation, thus to preserve maximum energy (and give it back), we shall not deform on impact
 - deformation means not only losing structure/balance, but also injury
- moving a hand, without leading it, through intention: using the concept of ballistic, throwing; quick and dynamic (can be explosive, "fajing")
- leverage (in martial art application) could be very precisely calculated through physical formula
- be always prepared on the battlefield with pen and paper and calculator ;)
- to get an intuitive feeling for the optimal positions to use the maximum out of physical reality
- vector = direction + value (for us, usually force)
- in taijiquan critical; when talking about yi (=intention), it needs direction (our -mental- vector)

- the mind needs to know where to go; otherwise the body doesn't know too (it needs to align to a -given- direction)
- very conscious taijiquan practice uses also the eyes (same with dance/CI: using eyes and head to steer in a direction)
- good alignment requires clear yi/intention, then lots is possible; without it, things will go wrong; directions are important
 - direction of movement, direction of body/posture, relation of directions to someone else's
- to read the other person, to be able to adapt, requires us to be aware of his direction (obviously in space, but also intention/mind)
 - to have certainty what the next move will be, the move will become clearer
- there is always one vector present: gravity pulling downwards; on every particle of our physical body, constantly
 - sophisticated movement systems make use of this fact; to improve structure, to create/change movements
 - usage of it in floor work/rolling; follow gravity, yield/relax/give in to it
 - it often leads back to simply surrendering to gravitational pull, and everything happens by itself
- in taijiquan, people stand very low; to go low is not very difficult, but to stay very low is ;)
 - elastic connective tissue will be able to use this stored (potential) energy, while going down, to get up again, or use/redirect it in another way

3.4 Small Dance vs Standing Meditation

QUESTION:

CI has a practice called "small dance"; how does it relate to taijiquan's/qigong's standing meditation? what is its aim?

TRANSCRIPTION:

- "small dance" = being aware of unconscious micro movements to stay balanced/upright
- micro-movements/distortions in balance; breathing, heartbeat, even thinking!
- to be more sensitive, fine-tuned (higher resolution in awareness); more nuanced/differentiated
- smaller parts; focused/magnified/zoomed; to be correct/exact/precise
- zhan zhuang (qi gong) - standing meditation; to stand like a pillar
- to move in extremely small room; a dynamic balance (not a static one); not holding, being stiff in a posture (it's an illusion from the outside of stillness)
- the goal is to be more aware, to feel more those subtleties in the body (not only micro-movements to balance, but also tension, etc...)
- the more sensitive, the bigger (subjective, internally) become these subtle movements (from outside it looks more and more still over time, smaller/compact/finer)
- don't try to "go away", that's something else; big corrections to evade some discomfort
- balancing micro-movements strongest to be felt in the legs, especially ankles
- the goal of standing meditation in taijiquan is not to "look/move prettier" (aesthetics), but to be more stable
- to activate tension more on the inside, more internal, thus being able to relax more outside/on the surface => iron bar, wrapped with cotton wool
- zhan zhuang provides a schema: a base-line/zero-line; to know where is the plus and minus relative to that state
- what is neutrality, not opening/closing, not bending/flexing, ... every direction would require activity
- the non-activeness is the meditative aspect of this exercise; learn through observation (despite small corrections in alignment)
- no correction is possible without observation first; and a direction going towards to (goal); feel/observe again after correction
 - but also don't stay continuously correcting, searching for something...
 - have a small break after a correction to pause/rest, and give space to observe/for awareness, for information retrieval, interpretation
- goal: to figure out the middle, neutrality; to be able to determine which side of the middle we are
- to be more fine-grained with it, so movements/adaptations can be more sensitive/fine/small
- pushing-listening exercise, at the beginning mere muscle act; later, a matter of pure sensitivity
- it's about refinement, scratching of the edges, making the ball round and smooth (not only in movement, but also in standing)
- to be able to decide nuances like to shift the weight by only 2 grams/millimeters; very tiny rotations of the shoulder, to always be centered
- to not be wasteful, but more precise by an increased awareness/sensitivity
- refinement... nuanced/differentiated... zoomed in/magnified (not rough)
- to be able to move in smaller space and time as the opponent; less space and time required to achieve the same (efficiency)
- it is (relatively) faster, as the movement is directed and requires minimum; similar to the concept of elegance (no unnecessary movement)
- yet the movements still stay visible; there is no "magical non-movement" happening; but the mechanics are very fine
- like the gears of a Swiss watch: a small movement of one gear, can have a big impact on a huge gear/the system in total
- the "inner space movement" is small (joints), the "outer space movement" is big (kinesphere)
- small dance: to know internal movement patterns; to know oneself; to be able to use those
- being able to feel how gravity pulls on me in the most subtleties (and its impact on my structure), then also usable in relatively bigger movements
- a mental warm-up, a body-scan, to be more self-aware
- a transition from small-dance to big-dance: to amplify the subtleties into bigger movements, expanding them, and letting them lead the movement (passively)
 - a source of inspiration/creativity, by gently supporting them; magnifying them
 - like in taijiquan: gravity pulls me, anatomically based biomechanics dictates a certain movement, and I will comply with it (nature)
- some repositioning of the joints is so tiny that it is (almost) impossible to consciously try to be aware of them, but we can feel them (using direction/intention)

3.5 Pathway Continuation

QUESTION:

how important is "pathway continuation" in taijiquan? how is it being practiced?

TRANSCRIPTION:

- pathway continuation, or: maintaining/continuation of the movement direction; inertia, momentum, anticipation
- to maintain the dynamics of the movement
- unrestrained letting it flow, in a never-ending circle, without a beginning and an ending
 - in partner exercises, continuously changing yin/yang, giving/receiving, attacking/defending, a dialogue
- everything done in one dynamic, one big (over-)arching movement; like in music (different notes, but one bow over it, connecting them all)
- it's a shock to the nervous system (annoying?!) if movement is unpredictable; jerky; breaking the pattern
- be like a circle (ball) and less like a zigzag rabbit hopping around
- inertia: a jerky movement will require a lot of (wasted) energy to execute, compared to a naturally rounded one
- without a set/fixed intention; breaks, and hard resets/restarts; without holding on
- it is very difficult for beginner to acquire that skill
- also due to the order of the curriculum: first, the basic movement patterns have to be acquired, and then we can go to flowy movements (pathway continuation)
 - first build up basic repertoire: standing, shifting weight, steps/footwork, bending/folding-opening/closing, spine work
- in taijiquan, weapon training helps to acquire the skill: a saber, as it is round (less a sword), or a (heavy) spear, forcing not to do jerky movements
- through the weight of the weapon, it has to be more of a round movement (otherwise fighting against inertia, it gets exhausting)
- from this constant flow of movement, potential intention is concealed if you want to suddenly deliberately WANT to change the direction
- out of the smoothness of circular movement, maintaining contact...

- taijiquan, as a martial art, we would rather not waste energy; not wanting to build it up if not required
- making the other work for me, that he is moving me, using his energy for my own advantage (needing less energy myself)
- trying not to be an obstacle to the opponent's force

3.6 Spirals

QUESTION:

how does taijiquan implement spirals? how are they similar/different from CI's interpretation?

TRANSCRIPTION:

- within taijiquan differences of emphasis on spiral movements
- popular yang style is simplified, fewer spirals; Chen style mainly spirals
- Chen style puts silk-reeling exercises in focus of practice (spiraling whole body as one unit)
- where do spirals start from? where do they go through? which planes?
- spirals even present anatomically in our bodies (muscle structures)
- thus, arms/legs want to rotate based on how they are built
- thus, there appears to be a physical justification for the naturalness/rightness of spiral movements (myofascial chains)
- difference rotation/spiral:
 - extremities (hands) or center (core/pelvis) are leading the movement
 - it depends... perspective; every movement can be viewed as such that the hand is leading
 - we want to move the hand; thus we reorganize the "body behind it" so that the hand can do its thing
 - yet, in principle, taijiquan moves from the center outwards (especially old styles)
 - in taijiquan: rotations AND spirals being from the center
 - a rotation moves the pelvis (like a full turn of the body)
 - rotation of the spine/torso; hip joints in relation to the upper body stays constant (moving like a "block")
 - the stance (legs) is of course different
 - purpose of rotation: to change the direction, to adapt the posture/stance (rarely for an application)
- spirals...
 - happening between center and extremities
 - the movement pushes outwards: it is inside smaller than the outside
 - a 3-dimensional movement: a circular aspect, which expands into space
 - e.g., starts (in old Chen style) lower small, and gets bigger when moving upwards
 - avoid dissecting the hand from the body; creating tension and resistance
 - exception maybe during an exercise/application, and the partner grabs and turns my hand; the spiral begins from outside
 - thus, spirals are moved inwards when they are passive
- rotation...
 - everything is turning like in one unit together
 - if the shoulders move, and the pelvis as well: that's not a spiral, but a rotation
 - taijiquan knows two (closely related) movement principles: spirals and waves (different in dimensions)
 - everything is a vibration, either circular (spiral) or wave-shaped
 - an oscillating pattern on a sheet of paper is a very limited view, as movement is 3-dimensional
 - in 3D, we would say many circles which move in space (a continuous curve, a spiral)
 - a wave is operating in a lower dimension, in 2: up/down, forward/back
 - spirals are better in neutralizing energy (compared to going directly against)
 - evading incoming force is also possible, but requires lots of time and space
 - the lower part moves a little, the upper body part more, shoulder/arms evaded already
 - when being encountered with lots of linear force against my own, then spirals are perfectly matching to penetrate that resistance
 - spirals are very efficient; energy-saving; using more the torso (where there are more muscles/strength), and less the arms/legs (weaker parts)
 - if the opponent approaches with whole body, we need to counter as well with whole body (not only hand/arm)
 - a rotation could be considered as a single segment of a spiral
 - a spiral can store plenty of incoming force, like a spring (PS: it's actually a helix shape ;)
 - physically a perfect shape to store energy, and also to release it
 - "good kungfu looks bad, only bad kungfu looks good" (movie stars, ineffective, show, performance, aesthetics)
 - true to a certain extent; yet, taiji classics state: practice boxing shall not be done without an artistic skill
 - wushu (=martial arts) is more than just fighting; it's a fighting "art" (not a fighting system)
 - kungfu = a way of doing things (but we say it wrong, as otherwise people don't understand us)
 - Hakka boxing (like wing chun, chu gar gao) not considered as real wushu
 - if it is truly a wushu style, then the aesthetical aspect is indeed considered
 - many styles are created to train soldiers quickly in times of war, thus disregarding the aesthetic aspect totally
 - wushu usually has a long tradition; almost like knights in feudal times; a bit like an art skill
 - the less traditional styles also have an advantage in being more effective
 - if the wushu (the movement in general) is "good", then it will be (as a side effect) also "good-looking"
 - if adhering the flow of nature, like in physics (gravity, spirals), adhering human body's nature (anatomy, biomechanics); to find the path of least resistance
 - the intention is still not on aesthetics; the danger of doing so, it will become an (ineffective) dance form, to pleasure the eye
- being aligned with nature is always regarded as attractive/aesthetical
- in the "zhuangzi" (daoistic classic), it is stated that there is a "naturalness of acting/man/nature/dao"
 - everything has its dao (=method); if a man tries to be like a machine, he loses that naturalness (and also aesthetics)
 - if my actions are not in alignment with my anatomic givens (with two arms), and try to move like a scorpion, it will not look aesthetical
 - it might be even externally considered as aesthetical by some, but it loses its internal naturalness
 - to bring that internal aesthetic (nature) to the outside
 - in CI, in improvisation in general, improvised acts come from inside out
 - to express oneself through movement; in the professional domain, people express other people's expressions by following choreographed movements
 - just like actors: there is a script, still the way it is specifically acted out (implemented) is colored by the actor/artist doing/executing it
 - there is always at least a tiny bit of personality, his uniqueness, added to the formalized notation of the script