# DOWNLOAD PDF SENSATION IS A BODILY ACT

## Chapter 1 : Difference between Sensation and Perception | Sensation vs Perception

*In other words, emotions live inside your body, changing your physical experience and causing you to believe and act in particular ways. One moment you're happy (emotion) on top of the world, so you're feeling spacious and light in the chest (body sensations).*

Are you listening to its whispers? Or do you wait until it screams? It involves discovering how you actually feel emotionally about something. Your emotional health and physical health are intertwined and inseparable. Your emotions are experienced and stored in your body. And they are manifested through body sensations. In other words, emotions live inside your body, changing your physical experience and causing you to believe and act in particular ways. Then someone says something that makes you feel anxious emotion. It feels like your world is caving in, your shoulders slump and you feel deflated and dull body sensations. Conversely, by changing your posturing, you can alleviate these body sensations and alter your emotional experience. The more you practice this, the more it will be your natural response and your emotions will change to feeling more confident and self-assured. Reflect on how the energy of shyness makes you feel small and act withdrawn. Sadness feels heavy, like the weight of the world is on your shoulders. Anger feels hot and stormy. Tune into your emotions and identify each sensation as you experience it. Honor the messages that your body is sending you about your feelings. Simply observe them for what they are. Do you want to become more balanced and centered? Here are some simple ways to get better acquainted with how your body responds to emotions. Observe what body sensations and emotions manifest as you do each of the following: Now add another dimension to your exercise sessions â€” an emotional one. Are you feeling anxious? Channel your anxiety into the physical act of exercise and release it. Invite all of your feelings, whether you view them as positive or negative, to come through your movement. Sitting in a slumped, helpless position invites thoughts and memories to manifest. Sitting in an upright, powerful position invites empowerment thoughts and memories. Eating healthfully for your body type. Everyone has a unique biochemistry which greatly influences brain chemistry and emotional state. What you choose to fuel this system will be determined by your metabolism, blood type, genetic history, and activity level. Of course, we all have basic needs for fresh, nutrient-rich, whole foods. It improves your physical health and helps you remain calm under stressful situations. Also Alternate Nostril Breathing can help you achieve balance and harmony. Somatic Coaching can help you become between attuned to what your body is telling you.

## Chapter 2 : Orgasm - Wikipedia

*The fear of bodily sensations is a core component of conditions such as panic disorder, heath anxiety, or chronic subjective dizziness. This CBT formulation diagram illustrates possible maintaining factors leading-to- and consequences stemming-from- a fear of bodily sensations.*

And my first reaction was: This is what happened: Reconnect with my own body? Nuts to that, lady! The lights are dimmed and my inner child begins snoring. But the rest of me feels like a feral cat trapped in a dark alley looking for any way out. We are asked to notice any sensations we might be able to experience. She says sensations are things we might notice in the body, not liking this noticing the body, business! Please stop saying this! She mentions a menu of sensation possibilities we might notice, like tingling, tightness, heat or coolness, buzzing or pulsing or itching, or numbnessâ€”even nausea. No wonder I avoid connecting with my body! Need I explain the concept of numbing out? The very idea of having to notice my body enraged me. And even worse, I had no clue if I was doing it right and that enraged me even more. Every so often I would notice a sensation in my body. When I did, I immediately became alarmed or bored or my mind just wandered off to Taco Bell. Was that me experiencing itches, twitches, cramps, and screams and just watching as they softened and settled? Something was changing in my relationship to discomfort. Now, I notice that I am increasingly able to stay and examine sensations that show up in my body when I feel upset on its way. I can be with my stress-clenched butt, my indignant-jaw, my quaking belly. That was a few years ago. By practicing the body scan, I am learning to stay softly present to the United Colors of Stress as it tries to hole up in my body. More and more, I can notice what I feel without having to hold on to it. I can let it go and return to the present moment over and over. Body Scan Meditation It is recommended you allow about 30 or 40 minutes to let yourself really investigate this practice. You might want to lay down, but you can also do it sitting up, especially if that makes it easier for you to stay awake. Bring awareness to the body breathing in and out, noticing touch and pressure where it makes contact with the seat or floor. Throughout this practice, allow as much time as you need or want to experience and investigate each area of the body. You might choose to do a systematic body scan beginning at the head or feet. Or, you might choose to explore sensations randomly. Sensations might include buzzing, or tingling, pressure, tightness or temperature, or anything else you notice. You can simply notice that, too. There are no right answers. The main point is being curious and open to what you are noticing, investigating the sensations as fully as possible, and then intentionally releasing the focus of attention before shifting to the next area to explore. But over time you can train it to stay for longer periods: At the end of this exploration of bodily sensations, spend a few moments to expand your attention to feeling your entire body breathing freely. Open your eyes if they have been closed. Move mindfully into this moment. Regularly practicing the body scan can help you: Enhance your ability to bring your full attention to real-time experiences happening in the present momentâ€”helpful when emotions or thoughts feel wild. Be part of a world-wide online practice community through eMindful â€¦ in the moment, on purpose, and non-judgementally.

## Chapter 3 : Pain (Stanford Encyclopedia of Philosophy)

*Hylomorphists claim that sensation is a bodily act. In this essay, I attempt to make sense of this notion but conclude that sensation is not a bodily act, but a.*

This is because they are perceived as unwanted and dangerous. In my post about the treatment of sensorimotor OCD , a reader asked about the ultimate goal of treatment. Should the goal of treatment be to never notice an unwanted thought or symptom? After all, this is the endpoint of treatment that most people are seeking. What are the implications of this goal? You will likely slow down your progress. Because every day you will encounter something that violates your expectations. Unwanted thoughts are a normal part of the human experience. Everyone has thoughts that are unwanted, aggressive, selfish, perverse, or deviant at times. They are accepted as normal brain noise. These thoughts may register, but they quickly get buried beneath other more pressing or interesting thoughts. Often these thoughts are considered dangerous or preventable, or they may be regarded as problems in need of solutions. It is largely the importance we attribute to our unwanted thoughts that determines whether or not they get stuck. As soon as we shift into problem-solving mode via a behavioral ritual or a mental compulsion , we increase the salience and power of the perceived threat. If you read my last post about thought control in OCD , you recognize that never having an unwanted thought is an impossible goal. This is because it leads you to characterize something normal as unwanted and dangerous. For people with Pure-O OCD , fear is often based on the possibility that having an unwanted thought means something about you e. Because of these fears, many people with Pure-O OCD including sensorimotor OCD adopt thought control as a means for managing, preventing, or reducing the impact of obsessions. Unfortunately, attempts at thought control and fear about a future dominated by symptoms often create a self-perpetuating cycle of fear and avoidance. OCD Feedback Loop Because thought control is incompatible with the way our brains actually work, it is destined to fail. As soon as it fails and your unwanted thoughts return, your desperation and fear is likely to increase exponentially. Again, these efforts fail. They disengage from work responsibilities, stop dating, no longer go to the movies, quit playing golf, etc. Avoidance comes to pervade much of daily life. Because our brains are constantly abuzz with noisy thoughts, we are guaranteed to notice something unwanted if we look hard enough. As you are engaging in treatment and are getting better, how you handle breakthrough symptoms will largely determine your outcome. Recovery from OCD involves breaking this cycle by re-engaging in life. It involves treating breakthrough symptoms as normal and unavoidable. It should not be to control your thinking. It is how we respond to these thoughts that either perpetuates them or allows them to drift elsewhere. Instead, we should work on living according to our values and building the types of lives we want for ourselves despite our symptoms. In a way, embracing coexistence with the unwanted actually creates more space in ourselves for those things we truly want. What have you adopted as your treatment goals?

## Chapter 4 : Sensations: Nature, Attribute and Types (With Diagram)

*On this view, bodily sensations have a spatial intentional content that represents the sensations (or the cause of the sensations) as being located in a part of the body. In intentional contexts, co-referential terms cannot safely be substituted.*

In the previous days, students had shaken the country by taking to the streets in protest in the city of Timisoara. These mass protests had been preceded that year by a wave of other social movements that took place in Poland, Hungary, East Germany, Bulgaria, and Czechoslovakia. Now in a broadcast from the balcony of the square, Ceausescu tries to reassure the population while making distressed appeals to preserve the unity of the political regime in the country. In the front row of the assembled crowd, a group of individuals cheer up the leader for the cameras while a silent majority listens quietly. Moments later, during the speech, the mood of the people gathered in the square changes dramatically. The small minority of individuals who were actively supporting the president is submerged by a growing expression of discontent. People start to move in the square and dismantle the line of security forces that were cordoning the event. In this paper, we will not discuss revolutionary events in Europe or elsewhere. Rather, we will use the above event as a concrete exemplarâ€"the symptom of a problem that enables and orients the relation between sensation, politics and the body. In addition, the above example will constitute a thought experiment that will allow us to test our hypothesis [End Page 69] that links the assemblage of bodies, screams, noises, and their collective formation at the intersection of politics and sensation. For now, suffice to say that from this example, the screams in question have the effect to actually galvanize the mass of protesters and allow for a coagulation of the political discontent that eventually extends to the whole country in the following days. The philosophical challenge we wish to address here is to explore the conditions for the emergence of a political phenomenology of the body. Existing does not refer exclusively to a thinking being, but also to being articulated in terms of sense-making. In short, in Merleau-Ponty, existential politics emerges from a close relation among three distinct and interconnected activities: Value as inescapable expression of theory serves to rationalize political activity and its relation to violence. Praxis consists in the encounter [End Page 70] of lived experiencesâ€"that is, of an inter-subjective process that can transform the inter-world of history. In other words, existential politics as engaged perspective in and with the world is incompatible with an intellectualist, objectivist and skeptical framework of analysis of politics. In this respect, existential politics is a holistic enterprise resulting from the dialectic inherent to this concept distinct from a notion of politics grounded in the realization of heterogeneous self-interests. This phenomenological account of existential politics in Merleau-Ponty is both useful and incomplete. It is useful because it places the political action in the lived experience of bodies linked to a collective whole. It is incomplete, however, because it does not fully illuminate the intelligibility of our example provided at the beginning of this paper, which is symptomatic for accounting of our concept of political sensation. That is why, in addition to the existential element put forward by Merleau-Ponty, we will treat politics as the realm of collective strategic 7 actions and particular objectives. Thus, our concept of politics is understood here as the domain of concerted actions of a plurality of actors who articulate a lived experiential relation of power that enable a collective subject that gives form to itself via definite strategic objectives, which are particular in their nature. However, particular strategic objectives are not reducible to a mechanics of self-interests but should be linked to our account of existential politics. This type of politics is not simply the expression of a synthesis of calculations of means towards ends that result in actual projects, but it is existential because it formulates itself as resisting actual determinations. The chief reason for making this claim is that our account of existential politics, while strategic, is essentially the result of bodily activities. Our hypothesis is that politics is not an ex nihilo reality. Rather, it is necessarily a situated activity. In an analogical fashion, we argue that politics is impossible from a disengaged perspective. In a more positive framing, politics relies on explicit or implicit normative values, on setting particular conditions and specific levels of engagement and commitment on and from various parties that make it possible. That is, politics is incompatible with the deployment and finalization of unconditional [End Page 71] and homogeneous ends.

More importantly, political activity cannot simply be a function of procedural reason; it cannot be reduced to the exclusive prerogative of our strategic mental activities of deliberation and the conscious execution of common projects. In other words, politics does not find its point of emergence in our mental relations of public deliberation and persuasion, or in the inter-subjective realization of common projects, but rather, we claim, in our bodily existenceâ€”that is, in the plurality of our inter-sensorial relations between our bodies situated within the groups or communities of which we are a part. Our contention is that the formation of sensorial bodily dispositions of collective nature enables and conditions the exercise of politics as such. We will show that an existentially situated and strategic politics is preceded by a pre-political domain that informs it as such. From this conception of sensation, we will show that it is possible to think the emergence of a commonality of sensation as a condition of possibility of a pre-political plane of analysis. Finally, the emergence of this commonality of sensation will be linked to the emergence of the constitution of a political body in its pre-political dimension. First, the body is perceived in its whole presence as Gestalt. Second, there is a unity of sense and a unity of the object because the body is continuously animated by sensations situated in relation to a general environment. The body is irreducible to a purely objective object and precisely thwarts any such categorization because it is lived through the corporeal schema. In this latter case, the body is seen as a corporeal schema that makes a style of its own existence, an open unity that would imply the possibility to generate, by its existence, a potential transformation of its posture. Following this conception, the body is in no way compatible with the notion of a subject understood from a relation to a naturally given object, nor as a subject placed before an object conceptualized by Cartesian metaphysics. The body is neither reduced to an immanent effort that would continuously reactivate an autarkic will which legislates itself, nor is it the sum of a series of sensible properties. This tension between internal and external planes of analysis will become evident in his account of sensation. How does Merleau-Ponty qualify sensation in itself? In inductive psychology, sensation is not reducible to an intellectualist position that reduces sensation to a function of consciousness, or to an empiricist claim that understands sensation as a quality quale. It is already clear by now that Merleau-Ponty argues [End Page 73] for an intracorporeal dimension of sensation. This last quotation is straightforward enough for us to point out that sensation in Merleau-Ponty cannot be reduced exclusively to the internal life of the body but also works as a mediation between that which is internal to my body and that which is external to it in an existential environment. In this way, what is argued here is that the contact with the world is mediated by sensation. Sensing as the being of sensation is not something in the realm of a coagulation of a series of atomic experiences of the world, but an integrative unity exclusively intelligible within a field Carman , related to the very notion of the body and its existential function. In other words, thinking sensation in relation to exteriority means to establish a situated relation outside of oneself, outside the framework of an internal lived body and a self-reflective corporeal schema. Rather, sensation is a transgressive state of being. As I sense the world, I come into relation with it. The fact that I see blue, I feel cold, I rejoice or I weep is never uniformly the same. It is rather contextually determined and differential in its nature. In light of this account, thus, one should focus on exploring the consequences of what it means that the very phenomenon of sensation in its primary function is transgressive, or rather an intra-sensorial process grounded in an experience of extracorporeal dimension. As such, sensation works as an in-betweenâ€”or rather it should be seen as a process of bodily inter-sensoriality that should be understood as structurally distinct from an intersubjective process. That is precisely because sensation does not rely on a regulated practice of conscious deliberation between parties in search of a basic rational agreement. Merleau-Ponty shows that as the body is exposed to the world of the sensible, one glides from one state of existence to another through the action of a pre-subjective intentionality. So far, we have shown that the phenomenon of sensation is a process that possesses an extra-corporeal dimension and, therefore, should be understood as transgressive. Sensation happens not only in the living body itself, but implies necessarily its external existential environment that, we claim, is pre-political in its nature. The consequence of this observation is to accept that an exterior dimension of the body is constitutive of the phenomenon of sensation. Now, this exteriority, we will show, emerges in terms of a commonality that is the very location of the emergence of the phenomenon of sensation. That means that sensation, as a general phenomenon, must be seen as something of

an external and strategic inter-sensorial collective nature instead of a purely personal or subjective event. However, taken collectively, all these elements suddenly become intelligible. At this point, a few conceptual clarifications are in order. The commonality of sensation as a pre-political plane of analysis that we put forward is not only distinct from the expression of collective feelings or emotions, but it is that which makes possible the feeling or the emotion of anger and contempt, in this case, to be expressed collectively. Furthermore, one should not confuse the commonality of sensation with something that would be close to an autonomous or independent construction of a location of the experience, apart from the sentient subject, or simply with a mass of individuals in a certain space and time. Rather, the commonality of sensation is a process that results from the particular participation of heterogeneous sensible elements to a pre-personal perspective. What is collective, then, is the process by which the subjects, the scream, the noises, are inscribed in the plane of common sensation. Sensation is thus, in this particular way, the original condition that allows for the constituency of the sensitive and which allows the emergence of the commonality of sensation. Sensation is that by which one primarily relates to the world and that by which the world is given to one. As a general phenomenon, prior to conscious intention, sensation is a possibility of the living being to relate to an Exteriority. From an exterior point of view, one could say that sensation is what allows the emergence of behavior: He demonstrates that sensation and the general movements of the biological body do not operate separately, as independent functions, or according to a predetermined order as it is argued in classical reflex theories, but rather they function together according to an intentionality prior to these very functionsâ€”that is, sensation and movement. For this subject, far from being a senseless phenomenon, sensation is always [End Page 76] the opportunity for an inscription into this given world. But how is it possible to fully understand this thesis? In order to grasp the relevant issue at stake here, it is fundamental to understand in what way the synchronization of the sentient and the sensed object is in no way reducible to a form of comprehension by the sentient subject of a variety of signs or qualia stimuli in general, or object offered directly or indirectly to the subject as potential meanings through the experience of exteriority. As a participant, the body occupies a unique and fundamental role within the structure of sensitive experience. The body possesses this unique capacity to synchronize itself with the sense-object or qualia, to participate in the common field of expression. Thus, the presence and existential structure of the body is the primary condition for any understanding of sensible experience and objects. This qualification that takes place through a common field of expression as both a particular and collective form of participation is being determined by a pre-reflexive intentionality of the sentient being. At this point, the conclusion must be that the sensation is operative that is, realized and experienced not simply within the body but in-between bodies and through their collective expression of anger, or contempt, as our initial example clearly shows. Two main reasons are to be considered. First, this co-emergence suggests that sensation is fundamentally a relational phenomenon between the internal, particular life of the body and its collective worldly expression. Second, the structure of co-emergence and its realization as an existential modality dissolves the individual subject in a pre-personal common experience that qualifies the expression of a collective being that can exist in itself and not only as the vector or the shared structure of these sensations. To put it differently, the externally situated existential environment works as a qualifier or as that which the generic being of sensation constantly refers to that provides an openâ€”continuously renewedâ€”synthetic unity. Exteriority and Communion One could object that accounting for the transgressive nature of sensation and the commonality of sensation in Merleau-Ponty is not in itself that new. The habit body, claims Merleau-Ponty, is temporally structured to link the past to the present, by carrying the past acquisitions, such as skills and habits, into the present. For this reason, this habit body is deemed pre-personal, pre-conscious, generic shared with others and anonymous. In this case, only the current body is capable of action and engagement in freedom and political activities. The body habit is the condition of possibility of experiencing the present as such via a series of situated dispositions that enable the spontaneous and projective nature of the current body. From this reading, the experience of freedom as spontaneous projects of self-transcendence is unthinkable without the capacity of the body to acquire, to internalize and express specific skills and habits Wilkerson. Without this component of bodily acquisition, freedom would simply become a negative moment, a break construed as independence from another.

However, the problem with this interpretation is that the habit body is reduced to being a passive fund, a generic and anonymous corporeal given Sullivan on which the current body relies to project spontaneous acts of freedom. This is not our interpretation. So far, we have argued that a pre-personal plane of analysis is intelligible through the transgressive and communal nature of sensation. Going forward, we need to show how this pre-personal plane of sensation becomes pre-political. Recall that in Merleau-Ponty, the concept of sensation is understood mainly as an internal, [End Page 78] generic, intentional being.

## Chapter 5 : Coping with body sensations - Psychology Tools

*The Wrong of Abortion Sensation is a bodily action. The act of seeing, for example, is an act that an animal performs with his eyeÂ-.*

However, the sensations in both sexes are extremely pleasurable and are often felt throughout the body, causing a mental state that is often described as transcendental, and with vasocongestion and associated pleasure comparable to that of a full-contractionary orgasm. For example, modern findings support distinction between ejaculation and male orgasm. Orgasm may also be achieved by the use of a sex toy , such as a sensual vibrator or an erotic electrostimulation. It can additionally be achieved by stimulation of the nipples or other erogenous zones , though this is rarer. Orgasm by psychological stimulation alone was first reported among people who had spinal cord injury. An involuntary orgasm from forced sexual contact often results in feelings of shame caused by internalization of victim-blaming attitudes. In one controlled study by Vance and Wagner , independent raters could not differentiate written descriptions of male versus female orgasm experiences". Masters and Johnson argued that, in the first stage, "accessory organs contract and the male can feel the ejaculation coming; two to three seconds later the ejaculation occurs, which the man cannot constrain, delay, or in any way control" and that, in the second stage, "the male feels pleasurable contractions during ejaculation, reporting greater pleasure tied to a greater volume of ejaculate". Masters and Johnson equated male orgasm and ejaculation and maintained the necessity for a refractory period between orgasms. In contrast to the two-stage model of male orgasm, Kahn equalized orgasm and ejaculation and stated that several orgasms can occur and that "indeed, some men are capable of following [an orgasm] up with a third and a fourth" orgasm. Anecdotal reports on cabergoline suggest it may be able to eliminate the refractory period altogether, allowing men to experience multiple ejaculatory orgasms in rapid succession. At least one scientific study supports these claims, [26] although cabergoline is a hormone-altering drug and has many potential side effects. It has not been approved for treating sexual dysfunction. It is believed that the amount by which oxytocin is increased may affect the length of each refractory period. A scientific study to successfully document natural, fully ejaculatory, multiple orgasms in an adult man was conducted at Rutgers University in  During the study, six fully ejaculatory orgasms were experienced in 36 minutes, with no apparent refractory period. In , Freud stated that clitoral orgasms are purely an adolescent phenomenon and that upon reaching puberty, the proper response of mature women is a change-over to vaginal orgasms, meaning orgasms without any clitoral stimulation. While Freud provided no evidence for this basic assumption, the consequences of this theory were considerable. He "concluded that satisfaction from penile penetration [is] mainly psychological or perhaps the result of referred sensation". In addition to observing that the majority of their female subjects could only have clitoral orgasms, they found that both clitoral and vaginal orgasms had the same stages of physical response. On this basis, they argued that clitoral stimulation is the source of both kinds of orgasms, [57] [58] reasoning that the clitoris is stimulated during penetration by friction against its hood; their notion that this provides the clitoris with sufficient sexual stimulation has been criticized by researchers such as Elisabeth Lloyd. Having used MRI technology which enabled her to note a direct relationship between the legs or roots of the clitoris and the erectile tissue of the "clitoral bulbs" and corpora, and the distal urethra and vagina, she stated that the vaginal wall is the clitoris; that lifting the skin off the vagina on the side walls reveals the bulbs of the clitorisâ€”triangular, crescental masses of erectile tissue. In , they published the first complete 3D sonography of the stimulated clitoris, and republished it in with new research, demonstrating the ways in which erectile tissue of the clitoris engorges and surrounds the vagina, arguing that women may be able to achieve vaginal orgasm via stimulation of the G-spot because the highly innervated clitoris is pulled closely to the anterior wall of the vagina when the woman is sexually aroused and during vaginal penetration. They assert that since the front wall of the vagina is inextricably linked with the internal parts of the clitoris, stimulating the vagina without activating the clitoris may be next to impossible. Because women reach orgasm through intercourse less consistently than men, they are more likely than men to have faked an orgasm ". Data was analyzed from the Australian Study of Health and Relationships, a national

telephone survey of sexual behavior and attitudes and sexual health knowledge carried out in â€”, with a representative sample of 19, Australians aged 16 to  Women were more likely to reach orgasm in encounters including cunnilingus". Pegging and prostate massage In both sexes, pleasure can be derived from the nerve endings around the anus and the anus itself, such as during anal sex. It is possible for men to achieve orgasms through prostate stimulation alone. It is also typical for a man to not reach orgasm as a receptive partner solely from anal sex. They described a cycle that begins with excitement as blood rushes into the genitals, then reaches a plateau during which they are fully aroused, which leads to orgasm, and finally resolution, in which the blood leaves the genitals. She stated that emotions of anxiety, defensiveness and the failure of communication can interfere with desire and orgasm. Rather than orgasm being the peak of the sexual experience, she suggested that it is just one point in the circle and that people could feel sexually satisfied at any stage, reducing the focus on climax as an end-goal of all sexual activity. These pulses are a series of throbbing sensations of the bulbospongiosus muscles that begin in the anal sphincter and travel to the tip of the penis. They eventually increase in speed and intensity as the orgasm approaches, until a final "plateau" the orgasmic pleasure sustained for several seconds. During orgasm, a human male experiences rapid, rhythmic contractions of the anal sphincter , the prostate, and the muscles of the penis. The sperm are transmitted up the vas deferens from the testicles , into the prostate gland as well as through the seminal vesicles to produce what is known as semen. The process takes from three to ten seconds, and produces a pleasurable feeling. It is believed that the exact feeling of "orgasm" varies from one man to another. This does not normally affect the intensity of pleasure, but merely shortens the duration. After ejaculation, a refractory period usually occurs, during which a man cannot achieve another orgasm. This can last anywhere from less than a minute to several hours or days, depending on age and other individual factors. In some instances, the series of regular contractions is followed by a few additional contractions or shudders at irregular intervals. Some women exhibit a sex flush , a reddening of the skin over much of the body due to increased blood flow to the skin. As a woman nears orgasm, the clitoral glans retracts under the clitoral hood , and the labia minora inner lips become darker. As orgasm becomes imminent, the outer third of the vagina tightens and narrows, while overall the vagina lengthens and dilates and also becomes congested from engorged soft tissue. Most women find these contractions very pleasurable. They argue that the presence of this particular frequency of contractions can distinguish between voluntary contraction of these muscles and spontaneous involuntary contractions, and appears to more accurately correlate with orgasm as opposed to other metrics like heart rate that only measure excitation. They found that using this metric they could distinguish from rest, voluntary muscular contractions, and even unsuccessful orgasm attempts. Paroxysm was regarded as a medical treatment, and not a sexual release. Brain There have been very few studies correlating orgasm and brain activity in real time. One study examined 12 healthy women using a positron emission tomography PET scanner while they were being stimulated by their partners. Brain changes were observed and compared between states of rest, sexual stimulation, faked orgasm, and actual orgasm. Differences were reported in the brains of men and women during stimulation. However, changes in brain activity were observed in both sexes in which the brain regions associated with behavioral control, fear and anxiety shut down. Regarding these changes, Gert Holstege said in an interview with The Times , "What this means is that deactivation, letting go of all fear and anxiety, might be the most important thing, even necessary, to have an orgasm. Holstege is quoted as saying, at the meeting of the European Society for Human Reproduction and Development: However, a subsequent report by Rudie Kortekaas, et al. From these results, we conclude that during the sexual act, differential brain responses across genders are principally related to the stimulatory plateau phase and not to the orgasmic phase itself. Further studies in this direction were carried out by Sem-Jacobsen , Heath , Cohen et al. These reports continue to be cited. In some recent studies, authors tend to adopt the opposite point of view that there are no remarkable EEG changes during ejaculation in humans. A study in the BMJ based upon men age 45â€”59 found that after a ten-year follow-up, men who had fewer orgasms were twice as likely to die of any cause as those having two or more orgasms a week. Note that as a rule, correlation does not imply causation. There is some research suggesting that greater resting heart rate variability is associated with orgasms through penile-vaginal intercourse without additional simultaneous clitoral stimulation. The

symptoms last for up to a week. Blair , published in the Journal of Sex Research, found that women in same-sex relationships enjoyed identical sexual desire, sexual communication, sexual satisfaction, and satisfaction with orgasm as their heterosexual counterparts. If orgasm is desired, anorgasmia may be attributed to an inability to relax. This delay can lead to frustration of not reaching orgasmic sexual satisfaction. Although orgasm dysfunction can have psychological components, physiological factors often play a role. For instance, delayed orgasm or the inability to achieve orgasm is a common side effect of many medications. Menopause may involve loss of hormones supporting sexuality and genital functionality. Sexual dysfunction overall becomes more likely with poor physical and emotional health. Therefore, orgasm increases the chances of conceiving with males of a high genetic quality. Such advantageous qualities thereby become accentuated within the species, driven by the differences between male and female orgasm. If males were motivated by, and taken to the point of, orgasm in the same way as females, those advantageous qualities would not be needed, since self-interest would be enough. Fertility There are theories that the female orgasm might increase fertility. The observation that women tend to reach orgasm more easily when they are ovulating also suggests that it is tied to increasing fertility. An orgasm before functions to strengthen the filter. Desmond Morris proposed that orgasm might facilitate conception by exhausting the female and keeping her horizontal, thus preventing the sperm from leaking out. This possibility, sometimes called the "Poleaxe Hypothesis" or the "Knockout Hypothesis", is now considered highly doubtful. A Learning Channel documentary on sex had fiber optic cameras inside the vagina of a woman while she had sexual intercourse. During her orgasm, her pelvic muscles contracted and her cervix repeatedly dipped into a pool of semen in the vaginal fornix.

## Chapter 6 : Cognitive Behavioral Model Of Fear Of Bodily Sensations () Worksheet PDF | Psychology Tool

*To overcome fear of body sensations you need to work through all of the exercises on the Interoceptive Exposure (fear of body sensations) worksheet. The tasks are not dangerous, but even in people without panic or fear they tend to produce moderate feelings of discomfort.*

The awareness of green, of warm, of sharpâ€”when not accompanied by the awareness of something green, warm, or sharpâ€”is a simple sensation; the awareness of a particular green leaf, on the other hand, is not a sensation but a perception. Pure perceptions occur in animals, e. But in man every perception is integrated into a more complex totality, involving the concept and the judgment. When someone sees a cat and makes the statement: Much of what is traditionally said about sensation, it should be noted, does not strictly apply to simple sensation but rather to sense knowledge or to perception. This article outlines a philosophical view of sensation, based mainly on the teaching of St. The Thomistic teaching on sensation defies simple, brief presentation. When simplified it is easily misunderstood, and when presented in its totality, it is difficult and calls for considerable insight. It is best explained, therefore, by first giving a rough outline that can serve as an approximation, and then correcting this on points of specific detail. Several stages may be distinguished in the act of sensation. In the physical stage, an outside stimulus e. This is followed by a physiological stage, wherein a modification is produced by the stimulus in the sense organ. Since the organ is living and animated, its physiological modification is accompanied by another, or psychic modification, whose production constitutes the psychological stage. The result produced is called the impressed species or the impressed intentional form see species, intentional. It is a substitute for the outside object within the sense power, by means of which the object becomes known. Up to this point the sense power can be regarded as passive or receptive. But knowledge is an activity. Hence there is a last stage, the active psychological stage, in which the sense power turns, as it were, toward the object, grasps it, and knows it. Only when this occurs is there real knowledge. This elementary explanation of sense knowledge raises a number of questions that must now be considered. Impressed Species and Object. Why do the senses know the object itself, and not simply its substitute, the impressed species? Objective signs must be known first in themselves, before the thing they signify can be known; examples would be a photograph, a traffic light. Formal signs, on the other hand, are not known in themselves, but become the means whereby the signified object is known. An example of a formal sign is the retinal image, or picture of a perceived object on the retina of the eye; man never sees the image itself, but through it he sees the object. In sensation, therefore, man knows the object itself, and not simply the impression made by the object. If he knew only the impression, he would forever be cut off from reality. He would not know that any impression was a faithful reproduction of the outside world, since, in that hypothesis, he could never be in contact with the outside world. He could not even be certain that there is a reality "outside" of himself. If man knew only impressions produced on his senses, he would arrive at knowledge of reality only by inference, by reasoning that this impression must be the effect of some external cause and thus applying the principle of causality. To claim that the sense powers reason to the existence of an outside world in this way, however, is quite implausible. What man knows, therefore, is not simply impressions made upon him by things, but things themselves. The problem of the passage from an outside world to an inner world is thus a pseudoproblem. There is no real passageâ€”these two worlds unite in man. Through his body, he is part of the outside world, a material object among other material objects and continually influenced by them. Together body and soul constitute not a union, but a unity, the animated body. Every time the body is affected, so is the soul, because what is affected is the animated or besouled body. He is aware neither of the impression alone, nor of the object alone; but of the object as it affects him, or of himself as affected by the object. External sensation may thus be described as the zone of consciousness that occurs at the common boundary of outside objects and animated corporeity. The physicist and the psychologist are, of course, free to consider electromagnetic or sound waves as causes of sensation. But philosophers cannot be content with this type of explanation alone, lest it lead them into insuperable difficulties. To explain sensation by means of light or sound waves, themselves knowable to philosophers only

through sensation, is to become involved in a vicious circle. Psychologists may be content to explain sensation by the stimulation of sense organs, nerves, and brain. Should philosophers do the same, they could fall into Cartesian dualism. For example, they might say that the stimulus coming from outside affects the organ, travels through the nerves, and is led into the brain center. But this explanation would tacitly assume that the soul is at the end of this circuit supposedly dwelling inside the body to listen, receive the message, and interpret it. Such a view is Cartesian. The organs, the nerves, and the brain center do not lead up to man, they are man. They are animated, besouled organs; as soon as they are affected, the human soul is affected. These observations, inspired by Gabriel Marcel , explain why external sensation or perception does not require an image or substitute for the object. Thomists therefore deny the need of an expressed species in external sense knowledge; in their analysis, perception puts man directly in contact with reality, and not merely with some substitute for it. A distinction is usually made between external and internal sense faculties see faculties of the soul. External sense faculties, the five senses commonly referred to, put man directly in contact with the outside world. Through the intermediary of the external senses, the internal senses also attain reality. Thus imagination is the internal faculty that provides representations of singular, material objects, in the absence of such objects. Memory also furnishes such representations, but further recognizes objects as formerly perceived. The two remaining internal senses are the central sense and the estimative power. The central sense, or common sense, makes man aware of the objects and operations of the external senses. When a person sees a dog, he is aware of the dog and of seeing that dog. Such awareness is not an act of seeing, nor is it an intellectual operation. It stands between external sensation and thought, and is attributed to the central or common sense, which may be considered as the seat of sense consciousness. The estimative power corresponds roughly to the cognitive aspect of instinct. Animals perceive not only colors and sounds, but also the usefulness or danger of things in their environment. Since this awareness cannot be attributed to reasoning, nor to the operation of the external senses, it is explained as the effect of a special internal sense. In animals this power is a lower analogate of prudence, through which animals know, with knowledge previous to any experience, that a particular thing is useful or harmful. In man the estimative power takes on new functions because of its connection with intelligence, and is called the cogitative power. It serves as a transition between the intellect with its universal ideas and the senses with their individual perceptions, and is the point of contact between sense and intellectual knowledge. Functioning of the Sense Powers. Although it is useful to distinguish between external and internal senses, these powers are not completely independent of each other. True, the internal senses may operate without the actual cooperation of the external senses; but the opposite is not true. Whenever the external senses act, the internal senses act with them. One would be unable to hear a sentence or a melody, unless, at the end of that sentence or that melody, he somehow remembered the first words or the first bars. When the eyes take in a landscape or a large painting, they scan what is present before them; one sees the painting only if, throughout the whole process of perception, he keeps remembering what was perceived before. Imagination and memory know objects that are not actually exerting influence from the outside. Physiologically this supposes the reactivating of the traces of a previous action of such objects upon the brain. On the conscious level, one speaks of images of these objects; Thomists identify such images as expressed species. The expressed species is that "in which" one knows, imagines, or remembers an object. It differs from the impressed species in three ways: It has already been shown that sensation is not purely subjective. Man does not know the impression objects make, but rather the objects themselves. On the other hand, sense knowledge is not as objective as intellectual knowledge; through sensation one does not know things as they are in themselves. This explains why color-blind people perceive some objects differently than those with normal vision. The state of the sense organ affects the sensations, and renders sense knowledge to some extent relative. Man knows objects as they affect him, as they appear to him. To use a Kantian terminology, the senses give a phenomenal, not a noumenal knowledge of reality see noumena; phenomena. It should be remembered, in this connection, that man never experiences pure sense knowledge. Human sensations are always accompanied by concepts and judgments, which assure an objective knowledge of reality. Organic Bases of Sensation. Sensation is rooted in the animated body. Whereas the body is only a necessar condition of thinking, it is, together with the soul, a cause of sensation. This organic causality is

exercised by specialized parts of the body, known as senses or sense organs. Traditionally five of these senses are mentioned: Modern psychology calls the fifth sense the somesthetic sense, and distinguishes within it four cutaneous and three intraorganic senses. The cutaneous senses are those of pressure, cold, warmth, and pain. They are considered distinct senses, because they consist of specialized nerve endings that, as a rule, react only to their specific stimuli. The senses of sight, hearing, smell, taste, pressure, cold, warmth, and pain are called exteroceptive senses. They give information about the exterior world. The intraorganic senses inform man about his own body. These are divided into the proprioceptive and the interoceptive senses.

## Chapter 7 : Sensory nervous system - Wikipedia

*ch. 23 general sensation. explain how the sensory receptors act as transducers. the change environmental stimuli into afferent nerve impulses. define stimulus.*

Sensations are things in our environment that are registered by the five major sensory organs. Sensation is what we see, hear, smell, taste and feel. Perception is how we interpret these sensations. Perception helps us make sense of our sensations. The operation or function of the senses; perception or awareness of stimuli through the senses. A mental condition or physical feeling resulting from stimulation of a sense organ or from internal bodily change, as cold or pain. The faculty of perception of stimuli. A general feeling not directly attributable to any given stimulus, as discomfort, anxiety, or doubt. A mental feeling, especially a state of excited feeling. A state of excited feeling or interest caused among a number of persons or throughout a community, as by some rumor or occurrence. A cause of such feeling or interest: The new Brazilian movie was the sensation of the film festival. The act or faculty of apprehending by means of the senses or of the mind; cognition; understanding. Immediate or intuitive recognition or appreciation, as of moral, psychological, or aesthetic qualities; insight; intuition; discernment: The result or product of perceiving, as distinguished from the act of perceiving; percept. A single unified awareness derived from sensory processes while a stimulus is present. The main difference between sensation and perception is that sensations are the passive process of bringing information from the outside world into the body and to the brain. Perception, on the other hand, is the active process of selecting, organizing, and interpreting the information brought to the brain by the senses. Sensations are passive, in the sense that we do not have to be consciously engaging in a "sensing" process. It is what our senses do naturally and at all the time. However, perception is what our brain actively does: Sensation is the process by which our senses gather information and send it to the brain. Humans are capable of sensing a large amount of information as any given time, such as room temperature, brightness of the lights, someone talking, a distant train, or the smell of perfume. However, due to too much information, our brain does not interpret everything. For example, if you are talking to someone, you might not realize that someone just walked in the room, even though you probably did hear the door creak and their footsteps. Due to this most of our world goes unperceived by us. Scientists estimate that we observe 11,, bits of info per second. However, we interpret only 40 bits. Also, perception can be shaped by learning, memory and expectation. An example of this and an easy way to distinguish between sensation and perception is that: When we see a building from far, it appears small. When we walk towards the building it appears to get bigger, at least that is what our eyes see. However, we do not exclaim in surprise that the building is growing, or that we are shrinking. Another example of perception shaped by learning, memory and expectation is when we walk into a room. If anything is amiss, or if something has been moved or removed entirely, we can tell the difference. Our eyes see the room, and we perceive that something is different from before.

## Chapter 8 : Unwanted Thoughts & Sensations in OCD - Treatment | Steven J. Seay, Ph.D.

**sensation* A sensation is a subjective experience resulting from the stimulation of a sensory receptor [1] (a specialized nerve cell that is excited by some physical or chemical stimulus).*

This thread manifests itself in common ways of attributing pains to bodily locations, such as the following: According to this thread, pains are like physical objects, or specific conditions of physical objects. Without an indefinite article, 6 suggests that I perceive some quantifiable feature or condition of my thigh. When we feel pains in bodily locations, our attention and nursing behavior are directed toward those locations. Less frequently, we also talk about the same pain returning or lasting intermittently: So according to this thread when we feel pain in parts of our bodies, we perceive something or some condition in those parts, and when we report them by uttering sentences like 1 through 8 , we seem to make perceptual reports. These reports seem on a par with the more straightforward perceptual reports such as: Compare, for instance, 5 and 9: Thus, this thread in our ordinary conception favors an understanding of pains as if they were the objects of our perceptions. When this is combined with our standard practice of treating pains as having spatiotemporal properties along with other similar features typically attributed to physical objects or quantities, it thus points to an understanding of pains according to which pains might plausibly be identified with physical features or conditions of our body parts, probably with some sort of physical damage or trauma to the tissue. Indeed, when we look at the ways in which we talk about a pain, we seem to be attributing something bad to a bodily location by reporting its somatosensory perception there, just as we report the existence of a rotten apple on the table by reporting its visual perception. Nevertheless, the very same common sense, although it points in that direction, resists identifying a pain with any physical feature or condition instantiated in the body. Thus it also seems to resist identifying feeling pain in body regions with perceiving something physical in those regions. A quick thought experiment should confirm this. Suppose that we do in fact attribute a physical condition, call it PC, when we attribute pain to body parts, and that PC is the perceptual object of such experiences. From this it would follow that a John would not have any pain if he had E, but no PC in his thigh as in the case of, for instance, phantom limb pains and centrally generated chronic pains such as sciatica , and, conversely, b John would have pain if he had PC but no E as would be the case, for instance, if he had taken absolutely effective painkillers or his thigh had been anesthetized. But these statements are intuitively incorrect. They appear to clash with our ordinary or dominant concept of pain, which seems to track the experience rather than the physical condition. This resistance to identifying pains with localizable physical conditions comes from the second thread found in the very same common-sense conception of pain. Given our common-sense understanding of pain, this seems to be the more dominant thread: An unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage. Pain is always subjective. Each individual learns the application of the word through experiences related to injury in early life Experiences which resemble pain, e. Unpleasant abnormal experiences dysaesthesia may also be pain but are not necessarily so because, subjectively, they may not have the usual sensory qualities of pain. Many people report pain in the absence of tissue damage or any likely pathological cause; usually this happens for psychological reasons. There is no way to distinguish their experience from that due to tissue damage if we take the subjective report. If they regard their experience as pain and if they report it in the same ways as pain caused by tissue damage, it should be accepted as pain. This definition avoids tying pain to the stimulus. Activity induced in the nociceptor and nociceptive pathways by a noxious stimulus is not pain, which is always a psychological state, even though we may well appreciate that pain most often has a proximate physical cause. IASP-Task-Force-On-Taxonomy Like other experiences as conscious episodes, pains are thought to be private, subjective, self-intimating, and the source of incorrigible knowledge. These elements can certainly be found in the IASP characterization, which also adds that pain experiences are unpleasant. Interestingly, however, when we talk about pains as experiences, we also, in the same breath, talk about feeling them as if these experiences were also the object of some sort of inner perception, which suggests introspection. Indeed the discussion of privacy, subjectivity, self-intimation, and incorrigibility

naturally forces us to talk this way. So, for instance, the very same apple I see on the table can be seen by others in possibly the exact way I see it, so is not private in this sense. Pains also seem to be subjective in the sense that their existence depends on feeling them. There is an air of paradox when someone talks about unfelt pains. One is naturally tempted to say that if a pain is not being felt by its owner then it does not exist. The apple I see does not depend on my perceiving it in order to exist: Not only people seem to have a special epistemic access to their pains, they seem to have a very special epistemic authority with respect to their pain: Conversely, if I feel pain, then I know that I am in pain. Again this conditional seems necessarily true. This is the self-intimating aspect of pain experiences. As Kripke famously put it: To be in the same epistemic situation that would obtain if one had a pain is to have a pain; to be in the same epistemic situation that would obtain in the absence of pain is not to have a painâ€¦. Pain â€¦ is not picked out by one of its accidental properties; rather it is picked out by its immediate phenomenological qualityâ€¦. If any phenomenon is picked out in exactly the same way that we pick out pain, then that phenomenon is pain. In the latter case, appearances can be misleading precisely because the perceptual appearance of an apple might not correspond to what the apple is like in reality. In apparent contrast to pain, normal exteroception always involves the possibility of misperception, and thus miscategorization that is, misapplication of concepts to the objects of exteroception. Experiences are in the head, if they are anywhere. Indeed, for most physicalists, they are in the head by being realized in the brain or in the central nervous system. But then what are we locating when we seem to attribute pains to body parts? We have already conducted a little thought-experiment to bring this out in Section 1. Comparing the following two sentences will help us understand the tension better: It is reasonably clear that for 9 to be true, I have to stand in the seeing perceiving relation to a dark discoloration in the back of my right hand, i. Note that if I am hallucinating a dark discoloration on the back of my hand, then 9 is simply false. So my seeing would typically induce me to conceptually identify something on the back of my hand as a dark discoloration. This is a typical case of categorization of something extramental under a concept induced by an exteroceptive experience. Of course, my uttering of 9 does more than attribute a physical property to a bodily region, it also reports that I am seeing it. What has to be the case for 5 to be true? Whatever the complete analysis of sentences like 5 turns out to be, one thing seems reasonably clear: Anyone who has a sufficient mastery of our ordinary concept of pain has no difficulty in understanding how 5 could still be true even though there is nothing physically wrong with my hand, which is typically the case in centrally caused chronic pain syndromes. In other words, when we make claims about where it hurts attribute pain to bodily locations , strictly speaking we in fact rescind from logically committing ourselves to there being anything physically wrong in those locations â€” even though we normally expect to find some physical disorder in them. Compare this to my uttering 9 on the basis of my having a very vivid visual hallucination of a discoloration on the back of my hand. In such a case, my utterance would be incorrect, because in uttering 9 I commit myself to finding some physical condition namely, a dark discoloration on the back of my hand. Nothing of this sort happens when I realize or am told that there is nothing physically wrong with my hand: I still correctly continue to report the pain I feel there by uttering the very same sentence, 5 , or its equivalents. This shows that despite the pressure exerted by the first thread, it is the second thread that seems to capture the dominant common-sense conception of pain â€” as indeed the IASP definition above indicates. Still the puzzle remains: It is not clear whether there is a common-sense answer to this question. Intuitively and somewhat naively, what common sense would drive us to say when pressed hard might be something like the following. I can introspectively examine different qualities of that thing such as its sharpness, volume, intensity, unpleasantness, burning quality, etc. I can in real time follow the changes in it: Clearly, I seem to be confronted or acquainted with something that I can introspectively examine carefully in real time and report on its various qualities. Also, the existence of this object seems to literally depend on my epistemic access to it: In addition, if it is the object of my attention separate from my attention , how could it be the case that I cannot be wrong about it? And importantly, if this object is not physical, what sort of thing could it be? A ghostly mental particular that I can introspectively attend to which is nevertheless spatiotemporally located beyond my head? The act-object duality embedded in our ordinary concept of pain yields strange results when followed intuitively and naively to its logical end. But perhaps this duality is a robust symptom of a deeper

truth underlying all perception and introspection. Perhaps pain is simply the most paradigmatic example of a broad range of perceptual experiences where this deep underlying iceberg shows it tip most prominently and revealingly â€" albeit confusedly. Indeed this is exactly the case according to so-called sense-datum theories, or more broadly, indirect realism. The perceptual act on the part of the perceiving subject, in turn, is analyzed as involving an experience which typically induces conceptual categorization, i. Thus perceptual experiences seem transparent to the perceiver, who may be said to perceive the extramental reality directly, without first perceiving or somehow being aware of the experience itself or its qualities. This view is supported by common sense and is typically called naive or direct realism. According to the indirect realists, this directness is an illusion; we are in fact directly aware of experiential intermediaries, and we perceive the extramental world only indirectly, in virtue of being directly aware of these intermediaries. Most early indirect realists e. Consider a hallucination of a red apple. Intuitively, the person having the hallucination seems to see something. This something is not, of course, an apple. But it is an object, according to sense-datum theorists, which is shaped like an apple and is really red. It is a sense-datum, a phenomenal mental individual which really has the qualities that it visually appears to have. Sense-data, however, are no ordinary objects: These theories claim that there is a hidden act-object structure in the perceptual awareness itself. Every perceptual awareness involves the act of being aware of phenomenal objects that characterize this perceptual awareness, whether or not this awareness is an hallucination or a veridical perception of external objects. According to sense-datum theorists, however, we are rarely, if ever, aware of this indirection in ordinary veridical exteroception. It is only critical philosophical reflection on features of perceptual awareness that reveals that the indirection must occur. The importance of pain and other intransitive bodily sensations lies in the fact that the indirection seems to be easily revealed introspectively as is shown by our unwillingness to identify the pain we attribute to body parts with anything physical in those parts. This position presumably explains why we have the act-object duality or ambiguity in pain talk that we discussed earlier:

## Chapter 9 : Exercise General Sensation Flashcards | Easy Notecards

*for sensation: the sense must indeed do something in order to for sensation to occur. Rubius' response is representative: "besides the reception of species in the faculty, sensation is an action [ actio ] of the same faculty that has the species" 7 and so "the sense is indeed a.*

Characterizing bodily awareness Bodily awareness may seem less rich and detailed than visual awareness, which can be analysed as full of fine-grained colour shades and well-individuated three-dimensional shapes that move around. Yet, as soon as we pay attention to our body, we become aware of the position and movements of our limbs, of the contact of our clothes on our skin, of the muscle pain in our legs, of our feeling of thirst. It may be difficult to describe what we feel, but what we feel can be so intense that we are sometimes not able to think of anything else than our body. What makes our body so special may be that unlike other physical objects, not only do we perceive it through external senses, but we have also an internal access to it through bodily sensations. One way to characterize the relation that we have only with our body or what we experience as our body is thus to say that only our body appears to us from the inside. In contrast, many bodies, including our own, can appear to us from the outside. Despite the constant flow of information about our body from the inside, our bodily awareness is surprisingly weak. While typing on a laptop, we do not vividly experience our fingers on the keyboard. Our conscious field is primarily occupied by the content of what we are typing, and more generally by the external world rather than by the bodily medium that allows us to perceive it and to move through it. We use the body, but we rarely reflect upon it. The body has thus this peculiar feature. This is not to say, however, that we are completely unaware of our body. Our attention can turn to our body for instance in acute sensations of pain, or in motor learning. In addition, one may claim that we are constantly conscious of the presence of our body, though at the margin of the stream of consciousness. The question then arises: Are we constantly conscious of the body in all its details or only as a unitary whole without any internal differentiation? At first sight, bodily awareness seems to be reducible to an unarticulated feeling. However, both James and Gurwitsch describe a more specific phenomenology, not only global feelings of bodily presence, but also particular sensations of bodily posture and state. Instead, he suggests that we are permanently aware of our body as an undifferentiated whole, except when acting. Actions then automatically trigger a precise awareness of the bodily effectors, while the other parts of the body recede in awareness. His latter claim, however, raises another set of issues about the relationship between bodily awareness and action Wong, forthcoming , which will be addressed in section 2. As said earlier, we perceive our body not only from the outside, but also from the inside. Although widely accepted, the distinction between the two experiential modes of presentation of the body is rarely spelled out and often reduced to the dichotomy between external senses and body senses, which include touch, proprioception, the vestibular, the nociceptive and the interoceptive systems. Touch is mediated by cutaneous mechanoreceptors. It carries information both about the external world shape of the touched object and about the body pressure on the specific part of the skin Katz,  Furthermore, touch is said to process many types of properties including texture, temperature, solidity, humidity, contact, weight, pressure, force, vibration, and so on. Proprioception provides information about the position and movement of the body. The mechanisms of proprioception include muscle spindles, which are sensitive to muscle stretch, Golgi tendon organs, which are sensitive to tendon tension, and joint receptors, which are sensitive to joint position. The vestibular system in the inner ear provides information about the balance of the body. It includes three roughly orthogonal semicircular canals, which are sensitive to motion acceleration as our head moves in space, and two otolith organs, which are sensitive to the pull of gravity. Nociceptors respond to dangerously intense mechanical stimuli, to mechanothermal stimuli or to thermal and chemical stimuli. According to the dominant theory, noxious signals are inhibited, enhanced or distorted by various factors via a gating mechanism at the level of the spinal cord that controls the amount of signals from the periphery to brain structures and via a central gating mechanism Melzack and Wall,  Interoception provides information about the physiological condition of the body in order to maintain optimal homeostasis, namely, cardiovascular, respiratory, energy feeding and

glucose , and fluid electrolyte and water balances. The parasympathetic system is sensitive to mechanical, thermal, chemical, metabolic, and hormonal status of skin, muscle, joints, teeth and viscera. At the cortical level, tactile, proprioceptive and nociceptive signals are processed in the primary and secondary somatosensory cortex. Interestingly, the primary somatosensory area SI generally follows the natural anatomical divisions of body parts, having receptive fields confined to single fingers or limbs Penfield and Rasmussen, ; Blankenburg et al. The Homunculus, however, is a distorted representation of the body. In particular, some body parts are over-represented, whereas others are under-represented. For instance, a relatively large cortical area responds to hand-related signals and a relatively small cortical area responds to torso-related signals. Furthermore, SI does not represent the anatomical contiguity of body parts. For instance, the hand-specific area is next to the face-specific area. In addition to the somatosensory cortex, the body is represented at the level of several brain areas, including the insula for nociceptive and interoceptive signals , the extrastriate and the fusiform body areas for visual information about the body and the right parietal cortex for multimodal representations of the body Blanke et al. Through body senses, one gains information about the body, which can lead to bodily experiences of various types Eilan et al. David Armstrong proposes distinguishing bodily sensations, like pain and touch, which are experienced as being located in a particular part of the body and bodily feelings, like hunger, thirst and tiredness, which are not. Within the category of bodily sensations, he then distinguishes transitive bodily sensations, in which there is an object independent of the sensations for example, tactile sensations , and intransitive bodily sensations, in which there does not seem to be such an independent object for example, tickles. Most of the debate in philosophy has focused on intransitive bodily sensations like pain see the entry on Pain. By contrast, bodily feelings are rarely mentioned in the philosophical literature, though recent work in neuroscience on the interoceptive system posits them at the core of bodily awareness and even of the self Craig, ; Damasio, ; Seth,  Bodily disorders are not rare, and can be encountered in both neurological after brain lesion, peripheral lesion, migraine and epileptic seizure and psychiatric conditions. By analysing a few of those disorders, one may shed some light on what it is like to feel embodied. Blanke and Mohr,  Some individuals feel that they are located outside of their body, which they can see often from an elevated location: Supernumerary phantom limbs cf. After brain lesions and in some psychiatric disorders, some people report experiencing the presence of more than two legs and two arms: How did you notice that you had a third arm? The first time was when I had visitors in the hospital. Somatoparaphrenia also called asomatognosia or alien hand sign, cf. Vallar and Ronchi ; Feinberg,  Following a brain lesion or epileptic seizure, patients deny ownership of one of their limbs, and can attribute it to another individual: Whose arm is this? So, where is your left arm? Alice in Wonderland syndrome. Some individuals suffering from migraine aura vividly experience their body parts as growing in size i. Cole and Paillard,  After rare acute neuropathy, some patients lose all tactile and proprioceptive information on their body. They no longer know where their limbs are without looking at them: I looked where my legs were before I started. I looked where my arms were. I looked where my body was and then I started to sit-up very gradually. Anosognosia for hemiplegia cf. Vallar and Ronchi, ; Vuilleumier,  Although paralyzed, patients experience that they can move and that their body is immediately available to carry any action they may intend. Could you go surfing on the sea should you wish to do so? These are only a few examples of the many ways bodily awareness can be distorted see Vignemont, for a comprehensive list of bodily disorders. Each of them highlights some aspects of ordinary phenomenology of bodily awareness, which normally remain dim and elusive. Theories of bodily awareness In the philosophical literature on bodily awareness, one can distinguish two main approaches. These can be called the representationalist approach and the sensorimotor approach. They both give a privileged significance to bodily awareness and they share the same interest in pathological disorders, action and the spatiality of bodily experiences. The claims they respectively defend, however, are different in both their methodology and their content. Whereas the representationalist approach is mainly anchored in analytic philosophy, the sensorimotor approach is mainly anchored in the phenomenological tradition. Whereas the former posits mental representation s of the body at the core of bodily awareness, the latter highlights the importance of interacting with the world. Bonnier first introduced the term schema to refer to the spatial organization of these bodily sensations. They initiated what might be called the

representationalist approach to bodily awareness e. Proponents of the representationalist approach claim that in order to account for bodily awareness one needs to appeal to mental representations of the body. On a minimal definition of the notion of representation, a body representation is an internal structure that has the function to track the state of the body and encode it, that can misrepresent it and that can be decoupled from it. Interestingly, a large number of the representationalist advocates argue that there is more than one type of body representations, leading to several taxonomies of body representations. But before describing them, let us consider the motivations to posit the existence of body representation s. Three main reasons have been offered to explain why bodily awareness might require body representation s. The first reason finds its origin in disturbances of bodily awareness. Most of the literature on body representation can be found in patient studies Schilder, ; Lhermitte, ; Cole and Paillard, , Schwoebel and Coslett, ; Sirigu et al. With the help of the notion of body representation, and thus of body misrepresentation, one can easily explain how the way the body is experienced can be at odds with the physical reality of the body. Phantom limbs may be one of the clearest expressions of the existence of body representations Schilder, ; Hilti and Brugger,  Patients feel the presence of their amputated limb because the physically missing limb is still represented. On the other hand, the body can be physically intact while its representation is impaired. For instance, patients with autotopagnosia are not able to correctly identify the parts of their body. According to Schwoebel and Coslett , autotopagnosia results from a deficit of the representation that normally encodes spatial and functional relations among body parts i. Most bodily disorders are thus interpreted in terms of disruption of representations of the body. Over an extended period, all bodily experiences share the same spatial content of the structural shape of the body. The last reason to postulate body representation is to account for our ability to move our body. However, on the Perception-Action model of vision Milner and Goodale, , , it has been suggested that what is needed for action is different in many respects from what is needed for bodily experiences.