2022 Patanjali Class 26
8/23/22

Sutra I:7B – Direct perception, inference, and authoritative verbal testimony are the valid means of real cognition.

I anticipated a short recap for this second part of Nitya's commentary, yet a rich conversation sprang up, and there was much worth recording. We began the reading on page 35, immediately after Nitya finishes touching on the third of the three main entryways into real cognition—Direct perception, inference, and authoritative verbal testimony—with the sentence "To remedy this variance in inferences, deductive or inductive, a second opinion is sought in the records of authentic wise people." *Authentic* being the tricky part.

Meditating on reality in cognition after the first reading, I noticed how everything "out there" loses its immediacy when we've been sitting quietly for a while. As our attention becomes interiorized and we surrender the need to define and react, we perceive a more realistic, presumably more real, steady state. We can readily visualize how any stimulation that comes in affects the stillness, to produce the myriad projected states we grapple with in our waking life.

For me, the gem of the last few pages on sutra 7 is Nitya's amusing perception that if you believe in the mind, you may as well believe in God, because it's the same order of speculation. I can picture staunch materialists hopping up and down in anguish, yet all of us, including them, like to imagine an invisible coordinating factor that unites the world's plethora of parts into an explicable coherence, providing us individuals a seemingly stable platform. It's worth rereading the entire paragraph:

> As we look through the five windows of sense perception, there is an invisible mirroring agent that synchronizes the pictures coming through the sense organs. This synchronized effect is what we call perception. For want of any clear comprehension of the event of synchronization, we postulate a mind and believe that it is functioning behind the senses. It is as good or bad as believing that there is a God who is managing the universe from behind. If we believe in our mind, there is no reason to disbelieve in God, because both hypotheses belong to the same order. As external organs can be clearly seen and verified, we know that the synchronicity of data, the selection made in structuring, the inflow of energy, and the ensemble that is configured are not attributable to any one sense organ. For the sake of convenience, we postulate an inner organ, the mind. (37)

The effect of being aware of an "invisible mirroring agent" is to nudge us to abandon the empty terms we lean on to anchor our ways of thinking, as if they ratify our ravings. Anita was shaken by this idea, which struck home for her in the later line, "The *actual source of knowledge* remains elusive." (Her italics.) We habitually take recourse in such terms to lend us a pretext of legitimacy: if God thinks it, or it's Scientific, it must be okay. For Yoga, we intend to dispense with all such crutches. First, we have to realize we're habitually taking recourse to them.

Charles, the only one of us who studied dialectics in person with Nataraja Guru, liked what Nitya says about dialectics. Nitya has just demonstrated how much padding we add to our direct perception with our memory-associations, and adds:

> What exactly is happening in the faculty of perception when such enormous details of inferential reasoning are also included? Inference becomes even more complicated when we

> pass on from formal inference to dialectical reasoning where we are obliged to hold good to our own inference as well as inferentially, intuitively, or instinctively knowing what our mate or rival is seeing and inferring when placed in the identical situation. These are issues too complicated for an experimental psychologist…. It is for this reason that inference is complemented with the valid testimony of a master mind. (36)

Charles was perplexed by the implication that we are not only trying to understand the field of own internal dialectic, but we must also be tracking another person, who could be a rival or a mate, as a counterpart. In addition to trying to understand yourself in changing situations, are we supposed to complicate it by figuring out how a rival is going to react? This has to do with understanding another individual, and Nataraja Guru often posed it as residing in the mind of the feminine, in the ever-mysterious man-woman dialectics. Charles has always struggled to disentangle the mind of the feminine from the particular woman, frame by frame.

I suggested the idea is valid no matter in what kind of individual or action context. Whether we are dealing with an intimate friend or enmeshed in political rivalries, understanding the "other" is essential to coping with them, and thus with ourselves. The human norm is imagining you know the other when you really don't have a clue, and that is dangerous terrain.

Nataraja Guru grasped how the simple dialectics of the ancient Greeks—thesis and antithesis combined, leading to synthesis—was close kin to Yoga, and could serve as a structural key to resolving inner and outer conflicts. Yoga for the West.

Subject and object, I and other, must have a direct correspondence, and this allows for synthesis. The middle isn't excluded, as in polarized thinking, it's the ground the poles play out on. In ordinary thinking, we produce the other from our

memory banks and prejudices, and the less the resemblance the greater the conflict. All around us we can see angry, hostile people who imagine they know the people they harm, when they are utterly clueless and there is little or no correlation at all. Or we're in a relationship with someone who refuses to fit our preferred version of what we want, so we try to force them to conform, using self-serving arguments.

For meaningful resolution, initially we need to balance ourselves within ourselves, and that's paradoxically where the other has a real value. An intimate partner is more likely to get through to us about our blocks, though we can also erect clever defensive layers to reinforce our pretenses. Let's face it—most humans, including spiritual seekers, prefer their comfortable, conditioned beliefs over real cognition, any day. That means truly seeking for "reality" or "veracity" is already a radical act.

The Absolute's contribution this week via The Guardian newspaper, is an article by brain expert Richard Restak, titled "Stop drinking, keep reading, look after your hearing: a neurologist's tips for fighting memory loss and Alzheimer's." You can read it Here. One pull quote: "The way we frame something in our memory is how we then perceive the world around us." Yoga creeps into the West's quotidian awareness.

There are many versions of dialectics, and Charles was perhaps puzzled by the most common, Hegels's use of it to examine history. In Kerala, Charles recalled university professors taking issue with the Guru for the same reason. A staunch individualist, Charles feels application of the dialectic to two people is as if you are handcuffed together, you can't escape, so if you break out of it you are in another universe. He did agree that a healthy relationship has continuity and includes an element of struggle. He's right: engaging with an other is like inviting another universe to harmonize with your own. We do it because it's helpful—and fun.

Paul offered an example he'd heard, of Plato's dialectics: one person says it's hot and another says it's cold—those are the thesis and antithesis. The synthesis is *temperature*. It isn't that one is right and the other wrong, that's just how they feel. The temperature is the uniform basis on which the two differing opinions are held. For Paul, the goal is to understand that our experience is nine-tenths interpretation, and there's a tremendous variance that can happen in the brain's interpretation of data. With his long years of conditioning, he realizes he has a vast potential for error, which is overcome to some degree by combining the duality of opposing forces into a singularity of mind, or God.

Andy liked Paul's example of temperature, noting the dialectical resolution of disagreement is kicking it up to a higher level of abstraction, where you can find agreement. He reminisced that Nitya would address combatants with something like, "It seems you are both interested in justice," for which they would readily agree, and then go from there. We are all agreed that there is a value to justice, which takes our position out of the specific context. Working from a basis of agreement is bound to be more promising than beginning in discord.

From what I understand, Nataraja Guru was trying to pry people out of their private, solipsistic boxes, to engage more successfully with their environment. Embracing the other and putting it on an equal footing with ourselves, reduces the risk of hostile polarization. Bringing the subject and its objects into focus is both an internal and external enterprise. Somehow the two limbs of the horizontal have to be in accord in order for healthy vertical development to take place; otherwise we cut ourselves off from it. Although it's relatively less important in Patanjali, an engaged spirituality is about overcoming our isolation as ego-centered individuals. Being on intimate terms with another person, while it can be very intense, offers the best opportunity for self-balancing and working toward holistic accord.

So yes, every object is specific, not simply an abstraction mounted by the subject. It includes a real person or situation. We need to admit new perspectives in order to make sense of something we don't understand. If we are convinced of our rightness in advance, we circumscribe what we could learn.

Andy mulled some more over direct perception, and asked: suppose you're in a relationship with a significant other, and you each have a direct perception that is different, which happens, how does your direct perception have a bearing on that particular occurrence?

First of all, we aren't trying to arrive at the "correct" perception, but only to recognize its role in real cognition. All three modulations that play into real cognition—direct perception, inference, and intelligent testimony of others—have a range of validity from 0 to 99.9%. Let's recap what Nitya says here:

> Every perception is a challenge. At most what comes from the external world is a quantum of energy that tickles a few receptors. The mind is required to interpret the source of that energy and formulate a meaningful picture…. Considering the vastness of the awareness that is appended to every tactual recognition, it is easy to see that we perceive little and infer a lot. There is nothing called pure perception. It is the quality of a concept with its inferential richness that gives meaning to every percept. (35)

Nitya uses the handy term 'mind' without apology here. As to that we "infer a lot," Andy wondered what he means. Real cognition implies veracity of perception, inference and testimony. All these factors are operating on and in two people, and they just can't agree. When he argues over the back fence with his Trumpian neighbor, he despairs over how they would get to the bottom of what might be called real cognition.

Those three factors in real cognition are subject to vast manipulation, and when you are arguing with your neighbor, very little of it is cogent discussion; anger, fury and frustration dominate, and we feel miserable. None of that is useful in dealing with the situation.

To Andy, the points I was making meant we could insert another word in the sutra that says these three categories are *possible sources* of real cognition, and I agreed. Patanjali was very sparing of words—possibly because in those days they didn't have iPads, so they chiseled them in rocks. I think of the sutras as lecture notes, not so much set in stone as memory prompts for absentminded teachers. I'm sure Patanjali meant "possible sources." The sutra can also be read to mean that all three avenues should be employed together, as none of them is sufficient by itself. If we see it, think it, and are confirmed by time-honored scripture or science, then it just might be real cognition.

Recall Lisa Feldman Barrett's line, "Scientists normally try to avoid saying that something is a fact or is definitively true or false. In the real world, facts have some probability of being true or false in a particular context." (141) More from her, and her book, *7 1/2 Lessons About the Brain,* is in Part II.

Regardless, we are arguing over stuff we have merely heard, not directly perceived, so it's impossible to come to a satisfactory conclusion. It's all inference based on what we assume. The only place we have a chance to have real cognition is in our actual interaction with actual people and actual events. Why can't we take all of this hot air and bring it down to exactly what we know? Then it gets manageable. In a way it's the technique encoded in this sutra.

Dialectic means we have to listen to the other side, take it into account. People are so desperate because they are never listened to, except perhaps by avatars online. In reality they are isolated in a vacuum. This reminded Anita of mindfulness,

which encourages us to focus on the perceiving and less on the inference. Paying close attention to the actual perception is a positive act.

Paul offered a unique example of synthesis for Andy and his rightwing neighbor. Typically, based on mutual cloudiness of mind, one person thinks one way and the other thinks another way. Paul's sister is 180 degrees different from him in politics. When they were young, and he was the younger, they played a game called Indian wrestling. They stood two feet away from each other, touching the palm of one hand, and pushed. If you made your opponent take one step, you won. Since he was the weaker, Paul learned to suddenly offer no resistance as his sister pushed hard, throwing her off balance, and then either she took a step or he could easily push her backwards. His takeaway from this was that her point of view is just as valid for her as his is for him.

Anita feels real listening is the greatest gift we can give anyone. It means departing from yourself and being in a neutral place where you can accurately hear what the individual is saying. She asked about the line that had stopped her in her tracks: "the actual source of knowledge remains elusive."

Susan responded, "I'm not sure that it matters what the source of knowledge is. It is elusive and so perhaps we need to lean into the mystery. When I feel frustrated with someone or something happening in the world, it has really helped me (more recently) to look inside myself and zero in on the hard feelings, thoughts, sensations I am having. Sometimes just sitting with those and giving them attention can dispel the frustration/anger. It's not quite logical or something to figure out but it seems helpful. It helps me and it helps me to feel more connected to others." She recently read an article about the famous yogi Milarepa that speaks vividly to this process; read it here.

Andy agreed Anita's question was profound, and surmised maybe we really don't have an understanding of the source of our

knowledge. If moment to moment we are confronted with not truly knowing, what is it in us that feels as if valid cognitions are happening? What is the true source of our knowledge, rather than the mere labels we use, like God, Absolute, Nature, Matter? It's not graspable.

I've added a scientific take on this, from David Eagleman, in Part II. Nitya is in tune with the latest thinking when he writes:

> The cognizance of an object is not merely the passive witnessing of a figure, because it is accompanied by many bodily changes such as emotional upheavals, or the experience of anxiety, fear, or confidence in confronting a situation. The most important factor to reckon with in Indian psychology is the recognition of the primordial function of the Self as the perceiving and coordinating agent behind all perceptions. (37)

The "coordinating agent" synchronizes the various sensory inputs so they happen in a coherent order. Although we take this coherence for granted, it's an important feature of the self-generated movie we're observing. The reckoning mentioned is to minimize the distortions that our history imposes on our perception (and reinforce the healthy ones), and note how these affect the coordination of our attention. Ultimately the question remains: how is the feeling of certitude manufactured, and is it safe to trust it?

We wound down with two snake stories. Paul was in a pet store to look at the fish, and as he walked down an aisle, he suddenly jumped several feet to the side and feeling a jolt of fear when he landed. Then he heard the rattlesnake rattle. I suggested it was evidence of the coordinating Self in charge: he needed to jump away first, and then know why after. There was no time for a conscious decision. It had struck him as life or death.

Anita's apartment is very hot this time of year, and she sat with the door open to catch a breeze. Suddenly she heard a snake hiss, and became frantic. There are rattlesnakes in her region, and she thought it might be under her chair, which is too heavy to move. She cautiously peeked under—no snake. She looked all around, and then called her neighbors to come help her search for it. They never found any snake, but she remained agitated for a long time. The next night the same sound occurred, and she realized it was the lawn sprinkler system coming on.

Snakes will also feature in the next sutra, dealing with unreal cognition, in their most famous analogy.

Part II

Neuroscience is catching up with Patanjali and Co. This is a perfect time to repost snippets from David Eagleman's *Incognito,* (Edinburgh: Canongate Books, 2011). The first couple are included just for fun:

There are as many connections in a single cubic centimeter of brain tissue as there are stars in the Milky Way galaxy. [Roughly 100 billion] (2)

If you ever feel lazy or dull, take heart: you're the busiest, brightest thing on the planet. (2)

The first thing we learn from studying our own circuitry is a simple lesson: most of what we do and think and feel is not under our conscious control. The vast jungles of neurons operate their own programs. The conscious you—the I that flickers to life when you wake up in the morning—is the smallest bit of what's transpiring in your brain. Although we are dependent on the functioning of the brain for our inner lives, it runs its own show. Most of its

operations are above the security clearance of the conscious mind. The *I* simply has no right of entry.

Your consciousness is like a tiny stowaway on a transatlantic steamship, taking credit for the journey without acknowledging the massive engineering underfoot. (4)

You're not perceiving what's out there. You're perceiving whatever your brain tells you. (33)

In the traditionally taught view of perception, data from the sensorium pours into the brain, works its way up the sensory hierarchy, and makes itself seen, heard, smelled, tasted, felt—"perceived." But a closer examination of the data suggests this is incorrect. The brain is properly thought of as a mostly closed system that runs on its own internally generated activity. We already have many examples of this sort of activity: for example, breathing, digestion, and walking are controlled by autonomously running activity generators in your brain stem and spinal cord. During dream sleep the brain is isolated from its normal input, so internal activation is the only source of cortical stimulation. In the awake state, internal activity is the basis for imagination and hallucinations.

The more surprising aspect of this framework is that the internal data is not *generated* by the external sensory data but merely *modulated* by it….

The deep secret of the brain is that not only the spinal cord but the entire central nervous system works this way: internally generated activity is modulated by sensory input. (44-5)

The first lesson about trusting your senses is: don't. Just because you *believe* something to be true, just because you *know* it's true, that doesn't mean it *is* true…. This is because your senses will tell you the most inglorious lies….

After all, we're aware of very little of what is "out there." The brain makes time-saving and resource-saving assumptions and tries to see the world only as well as it needs to. And as we realize that we are not conscious of most things until we ask ourselves questions about them, we have taken the first step in the journey of self-excavation. We see that what we perceive in the outside world is generated by parts of the brain to which we do not have access.

These principles of inaccessible machinery and rich illusion do not apply only to basic perceptions of vision and time. They also apply at higher levels—to what we think and feel and believe. (53-4)

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Also fun and relevant to read, from *7 1/2 Lessons About the Brain,* by Lisa Feldman Barrett, (Houghton Mifflin Harcourt, Boston, 2020):

Scientists used to believe that the brain's visual system operated sort of like a camera, detecting the visual information "out there" in the world and constructing a photograph-like image in the mind. Today we know better. Your view of the world is no photograph. It's a construction of your brain that is so fluid and so convincing that it appears to be accurate. But sometimes it's not.
[…]
From the moment you're born to the moment you draw your last breath, your brain is stuck in a dark, silent box called your skull. Day in and day out, it continually receives sense data from the outside world via your eyes, ears, nose, and other sensory organs. This data does not arrive in the form of the meaningful sights, smells, sounds, and other sensations that most of us experience. It's just a barrage of light waves, chemicals, and changes in air pressure with no inherent significance. (65-6)

How does your brain decipher the sense data so it knows how to proceed? If it used only the ambiguous information that is immediately present, then you'd be swimming in a sea of uncertainty, flailing around until you figured out the best response. Luckily, your brain has an additional source of information at its disposal: memory…. In the blink of an eye, your brain reconstructs bits and pieces of past experience as your neurons pass electrochemical information back and forth in an ever-shifting, complex network. Your brain assembles these bits into memories to infer the meaning of the sense data and guess what to do about it. (66-7)

This whole constructive process happens *predictively*. Scientists are now fairly certain that your brain actually begins to sense the moment-to-moment changes in the world around you *before* those light waves, chemicals, and other sense data hit your brain. The same is true for moment-to-moment changes in your body—your brain begins to sense them before the relevant data arrives from your organs, hormones, and various bodily systems. (72)

Predictions transform flashes of light into the objects you see. They turn changes in air pressure into recognizable sounds, and traces of chemicals into smells and tastes. (72)

If your brain has predicted well, then your neurons are *already firing* in a pattern that matches the incoming sense data. That means this sense data itself has no further use beyond confirming your brain's predictions. What you see, hear, smell, and taste in the world and feel in your body in that moment are *completely constructed in your head.* By prediction, your brain has efficiently prepared you to act. (75)