The Second Noble Truth

At the core of all Buddhist traditions is the concept of the Four Noble Truths. Here is an excerpt from what is traditionally considered to be the first teaching of the recently Awakened Buddha, the *Dhammacakkappavattana Sutta* (Dah-mah-chah-kah-pah-vah-tah-nah Soo-tah)—*The First Turning of the Wheel of Truth Leading to Awakening,* translated by Thanissaro. The excerpt describes the first three of the Noble Truths:

Now this, monks, is the noble truth of stress: Birth is stressful, aging is stressful, death is stressful; sorrow, lamentation, pain, distress, & despair are stressful; association with the unbeloved is stressful, separation from the loved is stressful, not getting what is wanted is stressful. In short, the five clinging-aggregates are stressful.

“And this, monks, is the noble truth of the origination of stress: the craving that makes for further becoming—accompanied by passion & delight, relishing now here & now there—i.e., craving for sensuality, craving for becoming, craving for non-becoming.

“And this, monks, is the noble truth of the cessation of stress: the remainderless fading & cessation, renunciation, relinquishment, release, & letting go of that very craving….

The Fourth Noble Truth, the Noble Eightfold Path, is not included in this review, and will be covered in future talks. It’s function is to provide the ways and means for realizing the potential of the Third Noble Truth, the letting go of craving and clinging, the elements of the Second Noble Truth. The following quote from the same Sutta translation, describes three stages for realizing the benefits of these Truths—to be comprehended, to be applied, and to be realized in their full potential:

“Vision arose, insight arose, discernment arose, knowledge arose, illumination arose within me with regard to things never heard before: ‘This is the noble truth of stress’ … ‘This noble truth of stress is to be comprehended’ … ‘This noble truth of stress has been comprehended.’

“Vision arose, insight arose, discernment arose, knowledge arose, illumination arose within me with regard to things never heard before: ‘This is the noble truth of the origination of stress’ … ‘This noble truth of the origination of stress is to be abandoned’ … ‘This noble truth of the origination of stress has been abandoned.’

“Vision arose, insight arose, discernment arose, knowledge arose, illumination arose within me with regard to things never heard before: ‘This is the noble truth of the cessation of stress’ … ‘This noble truth of the cessation of stress is to be realized’ … ‘This noble truth of the cessation of stress has been realized.’

This is the first of two talks that will describe the Buddhist doctrine expressed within the Second Noble Truth, so that the subjective experience of craving and clinging can be understood conceptually. The principles and practices of the Noble Eightfold Path—the Fourth Noble Truth-- will cultivate a profoundly beneficial transformation in a person’s subjective experience, moving from self-state conflict to self-state integration, setting the stage for the development of self-state liberation. Self-state conflict represents the First Noble Truth—“birth is stressful…”. The Second Noble Truth focuses on “the craving that makes for further becoming…”. The Third Noble Truth focuses on the relief provided by a more wholesome and integrated personality dynamic, leading to the potential presented for the development of self-state liberation by “…letting go of that very craving.”.

The experience of self-state conflict is created through the interaction of three mental processes—greed, aversion, and ignorance. Greed and aversion are the innate drives we all are subject to, expressed as craving, wanting pleasurable experience to persist, or unpleasurable experience to be avoided or destroyed. Ignorance involves being attached to or identifying with a particular thought or expectation as an enduring/autonomous self—the Buddha called this process as “the tyranny of I, me and mine”. Examples of self-state conflict will be reviewed later in this article.

Self-state integration involves the ability to restrain impulsive reactivity through letting go of the impulsive reactivity resulting from greed or aversion. The letting go of this reactivity is supported by detachment from thoughts and beliefs that are conflicted. Conflicts arise because as the mind attempts to exert control through imposing an ideal self-identification based on prior experience, which, while generally workable, can provide a poor match between the ideal and what actually works in a situation. The conflict is resolved through wise attention to the process of self-creation, supporting the ability to change one’s thoughts and actions to be more in accordance with what the current situation requires, organized around the principles of kindness, compassion, generosity, and equanimity.

Self-state liberation, the realization of the Third Noble Truth, can emerge from this integrative process, either to promote increasingly effective adaptations to changing circumstances from a spiritual perspective, or, ultimately, total liberation from ignorance, the experience of nirvana, the unconditioned.

What happens in the brain during the experience of self-state conflict? The processes of craving, clinging and ignorance can be understood neurologically. The following notes provide a more extensive review of these processes in the brain:

**Craving**: The Pali term for craving is *tanha*, and it is usually translated as an *unquenchable* *thirst*. There is another term that is often considered to be synonymous with tanha: *raga*, which is usually translated as *passion*. Subjectively, I experience craving as urgency, an impulsive surge of energy. This is described in psychological terms as an *affective drive*. When the craving is for pleasurable experience, contemporary psychological researchers call it *affect approach*, and when the craving is associated with unpleasant experience, it is termed *affect avoidance*.

There are many modern research findings that can describe what happens in the brain that’s associated with craving. A section of the brain that is important for assessing “data input” is called the limbic system. There are two clusters of neurons, one in each hemisphere, called the amygdala; the function of the amygdala is to determine any potential threat or reward in the stream of incoming stimulation. There is a strong neural connection to another two pairs of neural clusters called the *nucleus accumbens*. The function of the interaction between the amygdala and nucleus accumbens is to organize and stimulate activity to seek out pleasant rewards or avoid unpleasant experiences. There has been a large amount of research in the function of the nucleus accumbens because it is implicated in the process of compulsive thoughts and behaviors associated with addiction. It’s as if the nucleus accumbens gets “stuck in the on position”, so that even the successful achieving of whatever someone is addicted isn’t enough to “turn off” the nucleus accumbens. This is the unquenchable thirst that is tanha.

It has also been discovered that repeated stimulation of certain neural pathways increases the number of connections between the neurons involved and makes it easier for them to be restimulated, and this leads to the “stuck in the on position” process of the nucleus accumbens. This observation related to repeated stimulation of neural pathways isn’t limited to just that area of the brain. This phenomenon is called “long-term potentiation” and has been loosely termed “neurons that fire together wire together”, and this happens all through the brain, including the areas involved in the practice of mindfulness. It would be easy to assume that mindfulness practice could become addictive, but there are characteristics of mindfulness that make addictive behavior impossible. As mentioned in the quote above, the goal for resolving the distress described in the First and Second Noble Truths involves overcoming “the craving that makes for further becoming”.

**Clinging** is a phenomenon directly associated with the operation of craving and is often considered to be the effect of misperceiving craving as self-defining. The Pali word for clinging is *upadana*, which is usually translated as *clinging, grasping* or *attachment*. The original meaning of upadana was associated with “fuel”, “sustenance”, or “nutriment”, and was related during those times to be the result of the actions of Brahma, their name for the highest power of the universe. Brahman priests called the various items they placed on their sacred fires *upadana*. The Buddha often took words that meant one thing in his culture and modified them to explain one of his insights into the Four Truths.

Subjectively, we experience upadana as a kind of “psychic fuel”. When describing craving, I mentioned long-term potentiation, the process of “feeding” neural pathways, which makes them more strongly associated and more easily stimulated. Modern research uses a device called a functional magnetic resonance imager (fMRI). This is like using a digital video camera that images what’s happening inside the body (in this case, the brain). The researchers inject a harmless but radioactive dye into the bloodstream and trace where it seems to accumulate. Whenever neural pathways are being stimulated, more glucose and oxygen is required for the extra energy being used by the neural pathways. Blood is the carrier for this fuel, and, through tracking the density of the radioactive tracer, the increased activity within a part of the brain, such as the amygdala and nucleus accumbens is recorded. In this way, we can understand which areas of the brain are most activated when presented with some focused attentional task, while it is happening.

An original visual stimulus goes to the part of the brain tasked with processing more instinctual responses, and the amygdala—nucleus accumbens system is activated, already mentioned in the part about craving. Right next to the amygdala is another cluster of neurons called the *hippocampus* (as with the amygdala, there is one hippocampus in each hemisphere). The interactions between these neural pathways function to make a quick and incomplete assessment of the incoming data: “Friend or foe, food or poison?”. This flow of information goes to other areas of the brain to be coordinated with the more highly processed information coming from the memory/association areas.

Daniel Siegel wrote a book entitled “The Mindful Brain”, that I find to be quite useful for understanding how clinging happens. He describes how there is a conflict between “top-down” and “bottom-up” processing. The instinctual, sensory-based process is “bottom-up”, and the memory/association process is “top-down”. He calls the top-down process “invariant”, that is, the memory is consolidated and a degree of “fueling” has made the memory based process more powerful and believable. Unless the bottom-up process is very strong emotionally, the information feeding into the process more directly from the sense doors is overridden and we become “enchanted” by the overlaid memory-based process. This enchantment is clinging. The Buddha said that clinging to such views is at the core of dukkha.

How is all this related to clinging? The fMRI illuminates how data input is processed in various areas of the brain, and this provides some clues as to how the mind forms a thought. There are parts of the brain dedicated to processing stimuli from the “sense doors”, that is, visual, auditory, olfactory, gustatory, and somatic stimuli. For example, light stimulates the optic nerve, and the stimulation travels to various parts of the brain for processing. Part of the stimulation goes to the back of the brain, which processes the raw data into perceptions of color, edge, and movement. This process is then transferred to the parts of the brain where memories of images are stored, and the initial process is compared to pre-existing “forms” to develop a more elaborate rendering of what the eye “sees”. The resulting neural signal is then sent to the part of the brain that can impose more meaning on the developing understanding, putting the rendering into context with other data input, perhaps from similar perceptions developed in the part of the brain dedicated to auditory processing. At this level of the process of understanding what’s happening, the meaning-making memories are an accumulation of many similar prior experiences, consolidated into a self-defining moment of understanding. They “override” incoming stimulation—we jump to a conclusion about ourselves and the world, “from the top down”. In psychology, this is called a *confirmation bias*—the memory trace, the karmic influence of preconceived beliefs, tends to disregard any information that contradicts the already established, “top-down” assumptions. I call the manifestation of these processes the *selfing story*, which is a core element of clinging.

The most important aspect of this in respect to understanding clinging is the high priority that is placed on fear-based reactions. A famous teaching story from the time of the Buddha illustrates this.: If I’m walking down a poorly lit pathway in the woods at night and I see a coil in the path, the visual stimulus is processed through two pathways: the shorter one, through the “friend or foe, food or poison” process, and the longer one, through the primary visual and memory/associational processes. There’s a “lag time” in the coordination between the two processes—The memory based process organized around fear imposes meaning, deciding “It’s a snake!” However, when the fear response is more regulated through mindfulness and non-reactivity, further analysis reveals that it’s not a snake, but a piece of rope, and that that point, the tension goes away, and I can continue down the path.

The memory of “snake” is driven by the fear, and when the mind is lacking mindfulness, the incomplete and misguided conclusion that it is indeed a snake is an example of clinging. The emotion “fueled” the belief that the initial reaction is justified. The example of “Is it a snake or a piece of rope?” story can be extended to all sorts of less dramatic, but potentially more powerful misunderstandings about what’s happening.

In the context of self-state conflict, another example might clarify the operations of craving/clinging: We all operate through referencing current experience through prior experience—this is the “top-down” mode of experiential processing. The referenced self-identification emerges from an idealized version of how I am or how the world is. If I suffered from family experiences that created a self-identity organized around shame and low self-worth, I would carry this identity as an idealized insecure self-identity , interacting with an idealized and projected set of expectations during social encounters that involved beliefs that others will shame me and think I am unworthy.

Let’s imagine I am going to a social event like a party and am unfamiliar with whoever is there. When I open the door and walk into the room, I immediately notice that someone is frowning when looking at me. My preconceived, projected expectation of rejection is derived from early childhood experiences and assumes the other person doesn’t like me. Craving/clinging accepts this projection as valid, and activates a self-image organized around unworthiness, social awkwardness, and timidity. Attachment to this belief shapes my behavior according to this idealized view, leading to a series of uncomfortable and discouraging social encounters with others at the party, assuming that others in the party have the same negative judgment about me, and I leave the party, convinced I am just a lonely loser. As mentioned above, this is an example of self-state conflict. The self-identification conflicts with the social situation expectation, leading to distress and confusion.

Re-imagining the event from a self-state integration perspective, even assuming the background of being exposed to a shaming family system, the application of mindfulness, introspective investigation, and the ability to let go of disabling, idealized self-images allows a more adaptive approach to the party: Entering the door, I notice a person frowning while looking at me, and there is the potential emergence of self-doubt, but my meditation practice supports the ability to not reinforce this negative idealization. Instead, I am curious, and cross the room to introduce myself, seeking more information about the person and her attitude about me. I might even say that I noticed her frowning at me when I came into the room, and she might report that the bright light outside the room caused the frown! Alternatively, she might say something rude and demeaning, eliciting laughter from those around her. However, due to the accumulated benefits of mindful introspection and understanding that the opinions and behaviors of others don’t define me or my self-worth, I am able to remain calm and centered, say something appropriate and seek companionship elsewhere at the party.

The issues of self-state conflict resolution and the transformation towards self-state integration involve many aspects of my life experiences and responses. The main focus of attention to support this transformation involves realizing conceptually that we are all conditioned by a culture that is judgmental—being graded in school, valued by our skin color, social and financial status, ethnic background, etc. The next step involves the ability to use the skills of mindfulness, non-reactive equanimity, kindness/compassion, and renunciation, to reorganize our self-experience and expectations regarding the world.

In this context, the next of the two talks will review *paticca samuppada*, a core conceptual doctrine of Buddhist psychology, which describes how a personality is dynamically operating as a system, along with recommendations for changing one’s self-organizing confirmation bias—changing one’s karma in wholesome ways.