

Periphery and the FleshFactor

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Introduction

A famous example in the psychology and philosophy of perception is closing your eyes and feeling your way with a cane. For the normally sighted, this experience initially is awkward, as one attempts to deduce what may be ahead from the unfamiliar bouncing curved stick in the hand. But eventually a remarkable change occurs. The cane disappears from perception, and the world appears. That is, the cane ceases to be a focus of attention, and what the cane is revealing about the world comes into focus instead. Instead of cane, we perceive concrete, or grass, or a mailbox. This example is not too surprising — our eyes and brains show us the world without much intrusion of the fleshy, bloody details of those complicated and imperfect organs. Attending to one thing through a peripheral system of other things is fundamental to how people work.

When the cane disappears, it has moved to the periphery of our perception. It does so in order to let that part of the world that the cane can reveal come to the center. Notice that "peripheral" does not mean inessential or unimportant. The cane is crucial, without it we would know nothing of the world in front of us. It is peripheral because it is playing a supporting role, enabling us to perceive further ahead than if we had to wait to stub our toes.

The cane illustrates something else — that the peripheral can sometimes become center again. We can cease to perceive through the cane, and instead again attend to the cane. When we do this, the world through the cane goes away, but properties of the cane come forward — its weight, the feel of the handle, whether it is broken. This shift requires a simple refocus, and the ability to quickly re-center what was peripheral can be an important skill.

Philosopher Michael Polanyi, in his book *The Tacit Dimension*, called the peripheral realm the "proximal", because it was close to us. The center he called "distal". Our eyeglasses are proximal, and we look through them to what is distal. The proximal is tacit, it does not speak directly. But the proximal makes itself known through its consequences.

Attuning and attending

We use the word attunement to describe tacit attention to the silent possibilities of an environment. This is distinct from attending, which is explicit attention to what is in front of us. Driving down the expressway one is likely to be attending to the road, to the cars around, to the next exit. What happens if the engine suddenly makes a new noise? Effortlessly one now attends to that, listens for what it might be and the hazard it might signal, and takes appropriate action. But how is it that one heard the noise at all? You were not attending to it, yet it got into your head nonetheless. The answer is, it was part of your periphery, and you were attuned to it.

When at a party so loud that you need to shout to the person right in front of you, you nonetheless hear your voice spoken quietly across the room: that's attunement.

Attunement is the unconscious connection that we have to those parts of our periphery that we can quickly attend to with a simple shift of attention. The power of attunement is that we can attune to much more than we can attend to. Return to the car on the expressway. What are all of the events that might shift your attention? Weather, noise, motion of other cars, changes in

road surface, unusual billboards, interesting words or music on the radio, a shift in the seat, a funny taste in your mouth, a sudden unbidden memory, and many more. The range of attunement is immense. To those skilled at using attunement, it provides the opportunity for deep and wide connection with much more of the world around us.

Attunement, and the shift from attuning to attending and back, are part of what makes the periphery effective. If you believe that optimal functioning involves ignoring everything on which you are not focusing, then you miss the chance to expand your effective attention 100-fold by including the attunement space in your functioning.

Periphery at multiple levels

The periphery functions at many different levels. At least three are the perceptual, the cognitive, and the social.

The perceptual peripheral is the sensory surround to which we are not attending. Peripheral vision is a simple case. When we are driving or walking or even just sitting, the flow through our peripheral vision is crucial. A similar surround comes from sound, which provides crucial locating and comforting clues. And each of the senses offers its contribution to our periphery. The scent of a foreign place, even if unidentified or unexplicitly noticed, contributes to our understanding and memory.

Digital technology connects poorly with our peripheral senses. The architecture of a physical space influences peripheral vision, sounds, smells, and even bodily senses [e.g. tiredness from walking]. A digital architecture delivers little by comparison. Video screens put the information front and center in a little frame. The beeps, squawks, tune snatches, or voice data of computer audio technology are generally to be listened to, rather than for background awareness. And we have little in the way of smell, taste, or bodily inputs from computer systems. I consider this paucity of current digital technology not necessarily fundamental. But certainly current digital technology suffers from a painful lack of connection to the deepest foundations of being human, namely the proximal.

The sensorial peripheral is only the beginning of the impact of periphery on us. The cognitive periphery is another level up. Our use of symbols is one part of our cognitive functioning. Within the cognitive periphery certain symbols are front and center, while other structures are the surround within which we construct and compute in the symbolic world. Poetry plays on the cognitive periphery to evoke symphonies of meaning from the resonances of just a few words. Consider the following line:

"The force that through the green fuse drives the flower"
Dylan Thomas

The resonances from "force", "fuse", and "drive", the mental image of activity in the frail flower stem, and the core syntactic structure of raw action ["force drives flower"], pull us unconsciously, peripherally, into a framework of interpretation of strength and power. Power relationships from our past, with parents or governments or bosses, are subtly called up into the luminous background. The flower, and so nature, is transformed from something simple and delicate into something complex, mysterious, and even a little fearsome.

The cognitive periphery is extremely rich, and the above example is just a hint at its power. Conceptual frameworks, worldviews, religions, ideologies, cultural biases, all can function as powerful unseen peripheries that influence everything.

Alongside the cognitive periphery is the action periphery. When we act in the world those actions are an explicit center. Each of our actions can be seen as willed and discretely occurring. But each action is also within a periphery of consequences and influences beyond what we can possibly calculate. We perform our actions within a flow of those influences, and within an implicit understanding of the consequences.

For instance, when acting within a rich sports situation we behave appropriately within a complex field of sensory inputs and behaviors. Sking down a mountain, each millisecond requires new small muscle movements to keep in balance and moving towards our goal. These actions take place within a periphery, the center of which is our conscious attention to the slope as a whole or down the mountain.

Above the cognitive and action periphery is the social periphery. Where a cognitive periphery is more-or-less in our heads, the social periphery is all around us [and in our heads]. The distinction between social and cognitive is hardly clean, but useful to bring out certain points.

The social periphery names our deep embedding within a network of other people and practices. This embedding effects what we know, what we count on, and our comfort and skill every day. Lave and Wegner have clarified that learning is not a matter of putting facts in the head, but a matter of becoming a member of a community. Consider the following thought experiment:

Imagine a great engineer, Q, a real whiz at the details of manufacturing widgets for company ABC. Company XYZ hires Q away from ABC, but XYZ does not trust Q, and so requires him to work in a windowless office and communicate only by anonymous memos to and from the rest of XYZ. How effective would Q be? Not very. For one thing, anonymity would cut him off from understanding the sources of information [e.g.: John is excitable; George is a master of understatement], and the anonymity would cut off his colleagues from understanding his reliability. No community would form, and all of the wonderful bits of knowledge in Q's head would mostly be wasted.

To put this another way, individuals and communities are the focus and periphery for one another. Focusing on the individual one tends to see a knowledgeable person, with certain skills to be developed, and certain behaviors that are more or less useful. Focusing on the community, one tends to see a culture of response and support [or apathy and attack], an ability to get information, a system of processes, a set of cultural eyeglasses that keep out information, a continuity that outrides the coming and going of individuals. Both views are limited. Outstanding individuals help make an outstanding community. And an outstanding culture can enhance the ability of individuals to succeed in whatever way they interpret success.

The FleshFactor is the periphery

The proximal, the periphery, are the foundation of all our knowing and being in the world. The existentialist being-in-the-world is a reference to our proximal connections into everything. And at the core of everything proximal is the body.

It is the body that is the original periphery. As infants we learn to experience the world through our body. Where first we may bring only a buzzing confusion of sounds and colors and shapes, later we see things, and manipulate objects. Our bodily senses and abilities gradually become the proximal support for our attention to new centers out in the world. This support is not just perceptual, but is the foundation of cognitive and social relations as well.

Psychoanalytically one can tell the following story: Early on, each of us has a single periphery, in our body, and a single center, in the body and person of the other. We will form huge numbers of centers and peripheries in our lives, but the first center and periphery will bias us towards an initial pattern for setting up each subsequent center/periphery relationship. In the end, mental health will come from a transpicuous periphery. We will actually perceive differently, think differently, act different, and relate differently depending upon this periphery.

From feminist standpoint theory [e.g. philosopher Sandra Harding] one could emphasize the full periphery of a life, starting with a particular body, and extending through a particular history of a particular person embedded in a particular culture and history. This rich and unique history permeates all centered seeing, cognating, and social relations. These standpoints are not reducible to any particular accumulation of facts or logic or explicit assumptions, because they operate as a periphery, which is to say their very function is tied into their inexplicitness. It is only through the body that we take in and act out the periphery. The body is our most immediate source of peripheral sense. The brain — a part of our body — is our most immediate source of cognitive periphery. Having a body is the primary genesis of social participation.

We were always cyborgs

Whether something is flesh, or metal, or silicon, is not fundamental from the point of view of understanding center/periphery. Our bodies are flesh, and we have lived with them for a very long time, moment by moment, and we have built up an incredibly rich, complex, thick, tenacious periphery within them. That is the main distinction of the flesh over silicon — how much periphery we embed within it.

What would be the effect if from birth one of our senses was replaced or augmented mechanically? Some hint comes from experiments with reversing eyeglasses. After a few days of wearing such glasses, the world flips back around and normal functioning is restored. That is, the reversing effect moves into the proximal realm where we can again act through it. In this case the proximal element, reversing, is trivial and adds nothing to our ability. But imagine one that created a different perception, such as extending our visual range into the infrared, or increasing our peripheral vision. After some time we would come to pull that difference from strange center into effective periphery, and we would act through it as any other sense.

With philosopher/biologist Donna Haraway, I believe we were always, and always will be, cyborgs. The cyborg is simply one whose perception or action is mediated through mechanism. But that is all of us all the time. We see nothing that is not mediated through fleshy lenses and other transducers, and interpreted in multiple layers of synapse and cortex. Mediation is a kind of trivial periphery.

Not every augmentation of our bodies will work. Human beings are structured to have a center and periphery. This structure is tuned in some ways to our actual human bodies and

earthly world. This is likely from a genetic, Darwinian, learning, and center/periphery view. Architecture, product design, urban planning, politics, and many other great and low arts are in part about the predispositions of the human periphery. Those arts considered universal tap more deeply into the universal center/periphery structure. Those more transient resonate only with the temporary learned or constructed peripheries of a given culture or time.

The role of art in the periphery

Challenging the periphery is very difficult. It can hardly be approached through the center. Any words or explicit references slide right off. Making the periphery explicit destroys it, like the explosion of a fish pulled from the deep sea to the surface. The periphery must be sidled up to and nudged. It must be hinted at, and directed towards, without being referenced. In some cultures the name of god must not be said, but she can be indirectly referenced through effects, such as "the one who made all things". Referring to a particular person's periphery is like that, it is sometimes best done through effects.

A key function of art is to reframe peripheries. Where science and technology deal with what can be written down, art functions with what cannot be said explicitly. Art cannot just say, it must communicate under the surface of our center.

To talk about "meaning" in art is an error that confuses center and periphery. Meaning is a concept of the center, where one can lay out a model of consequences and referents and call this the meaning. Art uses referents and consequences and resonances to achieve what is not itself a "meaning". Art reframes, re-peripheralizes, pokes at consequences, hints at hidden peripheries, pulls periphery to center and vice versa.

Artist Steve Mann of MIT lives his life wearing video goggles. One of Mann's artworks is himself. By being this new kind of self, a person constantly recording, a person always viewing the world in part through digital mediation, a person who has chosen to continuously extend himself with technology, he throws our fleshbody periphery into question. Did we have in our periphery an unspoken, never articulated assumption that fleshbodies are all we could be? Mann confronts us with an alternative.

To reject an artwork is often to keep it in the explicit, and deny it access to our periphery. Is Mann just weird, an unimportant geekoid? This dismisses him by label and pigeonhole, and keeps him far away from our unstated worldviews.

Commercial art is frequently accorded lower status because it does not shake up the periphery, but reinforces the existing frames. Selling another cigarette to the most number of people is best done by tapping and using the most common peripheral elements of a given culture. Sex, money, youth are often deeply within our proximal cognitive framework. The highest commercial art will powerfully resonate with these peripheries while remaining inexplicit so that the resonance stays peripheral. Every periphery needs a center. Within the powerful stirred up peripheries, commercial art offers us a new center: the product.

Creativity, flow, and meditation

The "flow state" is described by psychologist Mihaly Csikszentmihalyi. In the flow state is where human beings do their greatest creative work. Flow state is characterized by, among other things:

- * losing track of time

- * losing track of place
- * intense activity of the proximal domain
- * a kind of unconscious "mindlessness", although perhaps with intense purpose.

The flow state's intense proximal activity can be perceptual, cognitive, action, social, or some combination of these or other peripheral domains. We become intensely effective in the flow state because we can activate and use large domains of knowledge without becoming conscious of them. In fact only by keeping them proximal can we possibly use them all at once.

Computer programmers are familiar with the flow state. It happens during an all-night hacking session, when the bugs are killed one by one and the program works better and better, and the next thing you know the sun is coming up. Programming cannot be started and stopped on a whim — the most experienced programmer still needs a large block of uninterrupted time in front of them to enter the flow. [In computer jargon, programmers sometimes speak of "swapping in the state", and once they get it swapped in they want to keep it in.] Csikszentmihalyi says it can take about 30 minutes to enter flow state.

During flow the programmer is consciously thinking about the big picture. But the little pictures are taken care of one by one. There is almost a sense that the more one is unconscious, the smarter one is. All of one's past history and experience is brought silently to bear on the problem at hand. One feels satisfaction and joy. The programmer's experience of flow is duplicated in many creative fields. The late nights, getting into the flow, losing track of time. This when we are most human, when our periphery is most luminous

On a recent trip to Japan I had the opportunity to speak to audiences of students and creative engineers about the flow state and building technology that would intersect with flow. I asked if Japanese had a word for this state, and after some discussion, "muga" was proposed:

无我

Various Japanese dictionaries translated muga as selflessness, mindlessness and ecstasy. It was described as the non-religious term to describe what Zen

坐禅

is about. My hosts agreed that muga generally was without purpose [although zazen meditation can be with purpose, as with Zen archery]. So perhaps flow state is muga with a purpose.

Is meditation, found in so many cultures, flow state, and so the activation of a rich periphery? To meditate one shuts off the conscious mind, the center, and all that is left is the unconscious, the peripheral. Meditation, muga, is flow without a purpose.

Modernism, Postmodernism, and beyond

Modernism is known in part by its focus on the center and its denial of periphery. In the program of modernism, all is to be made explicit. "Let us calculate" said Leibniz, and this could have been the slogan of modernism: rationality is the measure of man. There is no room for the inexplicit in modernism. The entire proximal domain is anathema to modernism's program, which must bring everything front and center for examination.

Postmodernism pluralized modernism. In the postmodern world we once again have history, have a standpoint, have multiple possible right answers, and can draw upon multiple sources. In postmodernism there is no progress except by accumulation of ever more possible views. But each of these views has its exegesis. Postmodernism does not yet escape from the explicitizing program of modernism.

Beyond postmodernism is the age we are entering. In this age perhaps the periphery can achieve its proper place alongside the center. Perhaps we will learn to operate with what can never become explicit or calculated, but must eventually be surrendered to in order to look through it. You can make some things explicit all the time, and all things explicit some of the time, but you can't make everything explicit all of the time. Living with, powering ourselves by the constant periphery will be the lesson of the post-postmodern age.

The original source of the periphery is the body. In the age of periphery, our bodies will be revered, and will extend everywhere.

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