

The Enneagram from a Cognitive Psychologist's Point of View

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Every time I say I'm a cognitive psychologist, I have to explain what that means. It doesn't mean I can help people with their problems, especially by using cognitive-behavioral therapy. I always liked that approach to therapy, but I only know about it by reading books and always thought its founder, Albert Ellis, was a brilliant man.

But cognitive psychology is not cognitive-behavioral therapy; the former is a major field of psychology and the latter, a specific therapeutic modality approach within the field of clinical psychology. At the University of Washington, where I went to graduate school, there are eight major graduate fields of study: clinical, child clinical, social/personality, behavioral neuroscience, developmental, quantitative, animal behavior, and cognition & perception. Only two of the eight programs are clinical in nature; the rest are entirely research-oriented. And even the clinical programs are pretty research-oriented; psych grad students from other programs used to joke that the only way to get into the two highly-competitive clinical programs was to say you didn't want to practice psychology as a clinician—except that it actually wasn't a joke!

When people apply to psych graduate school at the U.W., they apply directly to each of these programs, not to the department in general. The main thing these eight programs share in common is (a) the core statistics curriculum, (b) general exams covering key research material and (c) a research-based dissertation.

(Well, there was one other thing—having a desk in a cavernous windowless underground area called The Pit. One of the major goals of all new grad students was to somehow—by hook or crook—to find a way to procure a desk, or better yet an office, “above ground.” Most of us managed it within a year or two, usually by working for some professor who had a well-funded lab. My friend Norm was the only one who actually liked the Pit. He liked its solitude and remote location. His goal was to expand his little corner of the Pit by systematically expanding his allotted space a few inches each year, so that his space got bigger and bigger. This gave him the privacy he sought, along with space for his burgeoning collection of books.)

Anyway, the program to which I applied was cognition and perception. That's the area of my Ph.D. *Perception* is

how people take in information about the world. *Cognition* is how we process the information we take in. There's actually a third major area in the field, *Judgment and Decision Making*, which focuses on how we behave based on our perceptions and cognitions. (To anyone familiar with the MBTI, perception corresponds to the dimension of sensing/intuition, cognition to thinking/feeling, and decision making to perceiving/judging.)

Susan Rhodes

I became interested in cognition and perception when I started studying technical communication, especially research on how people take in information in written

form. I studied the effects of content, style, tone, and format, as well as stuff like the effects of our individual and cultural beliefs on how well we absorb information in written form. I used the same research to teach engineering students and others how to write research reports, grant proposals, procedures, and instructions that communicate effectively. But even after getting a Master's Degree in Technical Communication, I still felt I'd only scratched the surface, so I applied to the Ph.D. program and got in. I was a little scared of the requirements but also excited about what I would be learning.

Although my special area of study was written communication, I had to take courses designed to give me a broad background in cognition and perception, as well as conducting research on those topics. What I discovered was that human beings are *limited capacity information processors*. That's cognitive psycholohese for the idea that we have cognitive and perceptual limitations—that we can only take in and process a certain amount of information at a time. We have stringent limitations in perception, short-term memory, and problem-solving abilities.

The first psychologist to really point out those limitations was George Miller. In 1956, he wrote a seminal research article called, “The Magical Number Seven: Plus or Minus Two,” one of the most cited research articles in history.

What is magic about the number seven? It's the maximum number of bits of information that an individual can hold in short-term memory at any given moment. But his article turned out to be magical in other ways because it ignited the cognitive revolution in psychology.

This was a VERY big revolution, because it meant the overthrow of behaviorism, which had virtually dominated Ameri-

can psychology for over a quarter of a century. Behaviorists never looked inside the black box of the mind; they looked only at outward behavior and focused on how that behavior is conditioned by the outer environment. Miller dared to look inside that black box. He showed the scientific research community that it's possible to look inside of it, that it's possible to design valid experiments which measure mental functioning. His work thus established the legitimacy of empirically investigating mental and emotional states and paved the way for disciplines such as artificial intelligence (AI) and cognitive science.

Miller's work has been widely-replicated. Half a century later, cognitive psychologists see Miller's initial "seven plus or minus two" formulation as high; it turns out that this is the maximum number of chunks of information we can retain in memory. But if we look at how much information we can *comfortably* retain, the number is lower, probably between three and five chunks.

The situation is aptly described in the textbook I used to study the discipline:

We cannot process too many things at one time. Have you ever been talking to someone on the telephone when someone yells to you from another room? Or have you ever been watching television while someone asks you a series of questions? Experiences like these make it clear that it is difficult to carry on more than one conversation at a time. Psychologists describe such difficulty as a capability limitation or a [limiting] effect of attention (p. 59).¹

In 1957, Donald Broadbent suggested that human beings possess a filtering mechanism that helps us focus on just one channel of perceptual input at a time. When two or more sources of information compete for our attention, the one that gets there first effectively shuts off the channel, so that no new information can get in. In this way, we avoid being overwhelmed by too much incoming information at a given moment. But other researchers such as Colin Cherry and Anne Treisman did experiments suggesting that Broadbent's theory was oversimplified—that while the channel to which we attend may tend to filter out competing percepts, it does not completely filter them out, but merely places them in the background of consciousness. If the competing information is sufficiently salient (like someone speaking our name), we usually manage to notice it, despite the limiting effects of the perceptual filter.

Cognitive psychologists have continued to research the nature of both the perceptual filter and the other mental mechanisms that allow us to process information, despite our cognitive and perceptual limitations. While they often disagree about the specific mechanisms involved, there are two things about which everybody agrees: (a) it's our short-term memory (STM) that limits our ability to process information and (b) our STM limitations are innate, not acquired. As my textbook

puts it, "There does not seem to be any way to change the basic fact that this part of the system [STM]...is severely limited" (p. 14).

One would think that cognitive psychologists might be discouraged about human prospects based on this limitation. But cognitive psychology is not a pessimistic discipline. So our textbook authors characterize the everyday mental accomplishments of human beings as "astoundingly complex," and speak of the "truly staggering magnitude of human cognition" (p. 11).

Nevertheless, the field has been criticized as focusing too much on the "mind-as-computer" model. Ulrich Neisser, a figure of such preeminence that he is often seen as the father of the discipline, has criticized the field as too narrowly-focused and laboratory-oriented (and therefore lacking in the ability to talk about how ordinary people behave in daily life). He noted in *Cognition and Reality* (1976) that although cognitive psychology had managed to uproot both behaviorism and psychoanalysis as the predominant models in American psychology, it is too mechanistic and insufficiently dynamic, because it doesn't account for how percepts are affected by the experiences we gain in life. Another giant in the field, Jerome Bruner, stresses the importance studying human understanding in a way that gives it greater depth and meaning (see, e.g., *Acts of Meaning*, 1990, or *Actual Minds, Possible Worlds*, 1986). And in *Emotional Intelligence* (1997), Daniel Goleman has criticized the tendency of cognitive psychologists to look only at perception from a mental point of view, ignoring the role that emotions play in cognition and perception.

While I have been aware of these criticisms (and in general agreement with them), I've still found more to like than to dislike about the field. And this was especially true during graduate school, because cognitive psychology was providing me with such practical insights about how to teach technical writing. At the time, I was teaching both engineering students and adults and I wanted to know what to tell them about what mattered when they wrote. I wanted to know things like this:

- How detailed do we have to be in order to get our message across?
- What is the effect of negative tone in writing?
- What writing style gets across the message most effectively?
- How big does the type font have to be for people to be able to read what we write?
- How long can the lines be before people lose their ability to track the line?
- How much white space is needed between each line?
- How much does it help to add concrete examples of abstract ideas?
- When are illustrations needed and what kind work best?

These are solution-oriented questions. And I looked to a solution-oriented field—cognitive psychology—to answer them. And for the most part, I was satisfied with the answers I got. They were practical answers based on applied research. I could use them to teach my students how to write the kind of instructions, reports, and proposals that enabled them to communicate what they were doing to other people (especially bosses and funding agencies).

At the same time, I was interested in delving into other areas that my field couldn't address quite so admirably—e.g., what makes people different from one another. Narrowly stated, it involves understanding the factors that account for differences in the way that people respond in psychological experiments. While some differences can be accounted for by factors like age, gender, or socio-economic status, there are many variations that seem based in personality differences. Yet most of the focus was on the “main effects”: how people respond *on the average*. I always wanted to know what accounted for the “outliers”: for those responses that diverged from the average (which most of them do!). I wanted to understand what accounted for these variations and to know whether those variations formed a meaningful pattern.

More generally, I was fascinated by personality differences. That's what led to my study of the Jungian-based Myers-Briggs Type Indicator (MBTI), and later to my work with the enneagram. I couldn't really do that kind of work within my own field because personality is too complex to work with using the tools of that field. Perhaps not literally, but practically. And as Neisser and others point out, the computational focus of the field doesn't really lead investigators to look at individual differences, although there are notable exceptions like Howard Gardner, whose theory of multiple intelligences (see his book, *Frames of Mind: a Theory of Multiple Intelligences*, 1993), directs our attention to the idea that intelligence is not a unitary concept, but something that can be manifest in many different ways.

(But at the time, Gardner's point of view—which is more philosophical than empirical—was more of interest to the general public than to many of his academic peers. Shortly after this book was published, I once asked my psycholinguistics professor if he knew of Gardner's work, which I found exceptionally well-thought-out. The gentlemen replied, “Ah, yes—Howard. I went to school with him at Harvard. Well, now, he's a *generalist*, isn't he?” He wasn't saying it in a way that suggested he shared my respect for Gardner's ideas.)

Although I was a little disappointed, his response didn't especially bother me. I already knew the limitations of my field and its heavily-empiricized approach. My Ph.D. education offered a counterbalance to my own highly intuitive approach, introducing me to a level of formality which required me to justify my observations by the application of both empirical

and theoretical rigor. By the time I graduated, I knew how to combine the two in a fruitful way.

Cognitive Psychology and the Enneagram

I spent 12 years studying cognitive psychology, two years from the perspective of technical communication and 10 from a deeper, more research-oriented perspective. So by the time I got my Ph.D., I had been thoroughly steeped in the idea that “human beings are limited-capacity information processors.” By that point, I had seen so much empirical evidence to support this idea that it seemed self-evident. Certainly it is widely accepted as a fact by all the prominent psychologists in the field.

Several years after graduating, I encountered the enneagram for the first time. It was bound to happen, because I'd always been interested in individual differences and personality. And I'd worked with the MBTI quite a bit, although not professionally but for my own growth as a human being. After encountering enneagram books next to the MBTI books in the library, I eventually started reading some of them.

They all described the nine types of personality, but most of the focus was on nine types of personality each of which is characterized by a particular kind of distorted or fixated thinking. So here we have a theory of individual differences, but a theory based on the idea that these filters not only impose perceptual limitations upon us, but that our percepts are inherently distorted (fixated). Most people commenting on the topic seemed to assume that we are born without such filters (in a state of innocence or essence) but acquire them during our formative years (moving from ego to essence).

Now nobody called the nine enneagram types “filters,” but from my perspective, they were obviously serving that role, because they were what distinguished our point of view. They obviously exercised a central role in determining how we perceived the world. But I quickly realized that the filters (the types) were believed to actually create the *need* to have cognitive and perceptual limitations, not simply to describe how these limitations *vary*.

To me, these limitations are inevitable; literally hundreds of experiments have confirmed this fact. And from a cognitive psychological point of view, they're a positive feature in the psychological landscape because they allow us to take in information about the world without experiencing sensory overload. We know this is a good thing, because when it's absent (e.g., when we're tired or take certain drugs), we feel overwhelmed and less able to deal with life.

But in the world of the enneagram, these limitations are portrayed as a disadvantage. The implication is that, without them, we'd be in a state of expanded awareness (i.e., in essence). Maybe so—at least for certain individuals in certain situations. But most of the time, the need is to be fully alert in

the ordinary world—to make the best possible use of existing resources. The individuals who are able to do this, do it *by refining their ability to work optimally within a state of limitation*. It is the process of continual refinement that enables us to develop a keener, sharper awareness of the world around us (a more subtle attunement) than by “throwing off the shackles” of our type.

For example, watch a reality show like *The Amazing Race*, in which people are put under pressure of various kinds to perform tasks which challenge their patience, perseverance, mental alertness, and emotional resiliency. It’s the people who remain calm and alert in a variety of stressful situations who almost inevitably win the day. (My favorite example on that show is the black couple who were actually 100 yards from the finish line—where they would win \$1,000,000—but who didn’t have the cash to pay their cab driver. At any moment, another team could appear to claim the money. Did they become angry, upset, or hysterical? No. They simply said, “Okay, we will collect the money for the driver.” And they went around to bystanders calmly asking for contributions. They eventually collected enough, paid off the driver, and still had the time to reach the finish line first. To me, *this* is what expanded awareness is really about: the ability to remain human under inhuman—or at least highly stressful—conditions.)

I can think of a lot of other examples—and I’ll bet you can, too.

As long as we live in a physical body, limitations are something normal, not abnormal. We don’t have an elaborate theory to tell us how we came to have the limitations of type; we just need to look at the world around us, which is full of limiting conditions, many of which impose limits for our benefit.

Our nervous system limits our ability to do certain things by giving us pain when we exceed our limits; those who lack the ability to feel pain are not freer than the rest of us, they get many injuries that would be avoidable, if only they had a feedback system to tell them when they are putting their hand on a hot stove or jumping from a ledge that is too high. Life is much more dangerous for people who lack such feedback mechanisms.

Our social systems also impose boundaries designed to keep us within certain limits; if we go beyond them, we incur social or legal penalties—penalties designed to provide some measure of cultural stability (and also to protect people from themselves).

Even spirituality imposes limits; we might think that we can just decide to free ourselves of our spiritual limits, so we can experience higher states of consciousness. But as the Sufis have observed, there are veils which block us from the Ultimate Reality, which are *intended* to block us from experiences for which we are not prepared. Sometimes people find ways

to get rid of these veils prematurely, not realizing why they are there. Is this a good idea? I would guess not.

Once we get over the idea of seeing the types as something that imprisons us, we can turn our attention to how they support our functioning in life. As a cognitive psychologist, I’m excited about the idea of seeing the nine types as perceptual filters; to my knowledge, no one who is currently studying perceptual processing has any real idea what it is that determines what we perceive—why it is that nine people can look at exactly the same event and see something from an entirely different point of view.

The enneagram can tell us a lot about the motivational factors that determine how we view the world (and therefore what kind of information we allow into our consciousness). It’s likely that the core motivation of our type directly affects the operating of the perceptual filter that determines what we see and the cognitive filter that determines how we respond to what we see.

Let’s say we’re all looking at a pedestrian crossing the street. She drops her wallet and bends to pick it up. Unfortunately, in the process, she is hit by a bicycle. What do people see? And how do they respond?

- ONES tend to see the ethical dimensions of the situation. They ask, “Who is responsible?” and try to collect information that may answer this question.
- TWOS tend to see the humane dimension, and wonder whether both participants are okay.
- THREES tend to see the event from a pragmatic point of view, and try to provide practical assistance.
- FOURS tend to absorb the emotional shock created by the impact, and may intervene to calm people who are emotionally overwhelmed.
- FIVES tend to notice the details of what happened, and to dispassionately record the exact details of the scene.
- SIXES tend to notice the fearful aspects of the situation and do what they can to restore order, including contacting emergency services.
- SEVENS tend to notice the intensity of the situation and look for ways to lighten things up.
- EIGHTS tend to notice the need for leadership and step in to take charge, if necessary.
- NINES tend to notice the general lack of harmony and to be available for whatever is needed.

Now, some of these descriptions are obviously stereotypes. Nonetheless, there is a good deal of truth in the idea that each type sees the accident through the prism of its particular core motivation. It's also true that all nine ways of perceiving have something of value to offer; that there is no, one "best" way of perceiving the situation. By combining them, we achieve a measure of balance: all the needs of the situation are met. (If there's anything the enneagram teaches us, it's that we all need one another if we are to have a balanced world.)

Summary

My purpose in this article is to explain the reasoning behind the way I see the nine types—to explain how the insights of cognitive psychology support my view of the nine types as nine kinds of cognitive/perceptual filters that support our mental apparatus. Not only do the types help us sort out environmental percepts in the moment—they also help us form a long-term mental representation of the world, which is important for our ongoing mental and emotional stability. So from a cognitive point of view, our type serves two important purposes whose value cannot be overestimated.

Seeing the nine types as nine matrices that shape the way we perceive, think, and act allows us not only to see the nine types in a more positive light but to potentially better understand the processes of perception, cognition, and decision making. It will be interesting to see how both of these points of view may inform the other in the years to come.

(Endnotes)

1 *Cognitive Processes* (1986), by Lyle Bourne, Robert Dominowski, Elizabeth Loftus, and Alice Healy.

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