

Korzybski's Structural Differential and Hayakawa's Abstraction Ladder

By Steve Stockdale



This paper was inspired by, and is addressed to, Andrea Johnson's PCM 230 General Semantics class at Alverno College in Milwaukee, Wisconsin.

I thoroughly enjoyed your fine class presentations during my visit on March 16th. As I made some scribbled notes to myself, I intended to provide a few specific comments to each of you. However, upon some reflection since, I decided to jot down a few thoughts regarding a topic that I sensed some of you are struggling with in your recently-begun tiptoeing through the *abstracting* tulips.

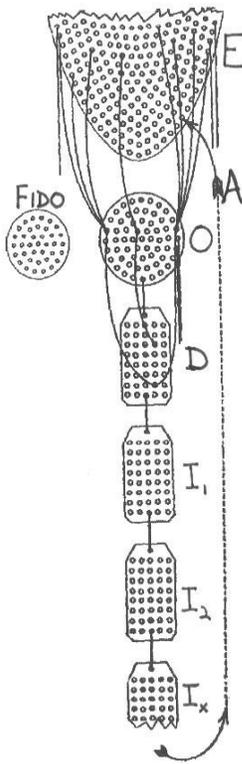
That being - *abstracting*.

I think it's important to point out a distinction that may not yet be apparent.

Some of you talked about *abstracting* in the context of Korzybski's *Structural Differential* model, while some of you used Hayakawa's *Abstraction Ladder* diagram. These two representational aids - while both dealing with some conjugation of *to abstract* - do NOT represent the 'same' territory. Put another way, they each symbolize quite different referents. Unfortunately, the word *abstract* can be appropriately used in the context of each; however, the two models should not be confused with each other.

First, a brief review of Korzybski's Structural Differential. Some key points to emphasize:

- The "*differential*" in *Structural Differential* refers to an **operational** difference between what humans *do* and what animals *do*.
- The difference between what humans *do* and what animals *do* is that, as the diagram reflects, an animal's ability to **abstract** is limited; a human's ability to **abstract** is virtually limitless.
- **Abstracting**, in the context of Korzybski's model, refers to physiological-neurological activities, or *processes*, that occur on *non-verbal* levels. Put another way, *abstracting* is something that your body-brain-nervous-system is continually *doing*, without respect to whether or not you're aware of it.
- The different *levels* that Korzybski defines in the diagram refer to aspects of the overall *process* which seem to consist of clearly-differentiated *orders*, or types, of activity.



E - The raggedly-cut parabola represents "what is going on" (*WIGO*), or more correctly, "what we *infer* is going on", whether we are consciously aware or not. Each dot, or hole, stands for an aspect or characteristic of the sub-microscopic process level, or *event level* which comprises *WIGO*.

O - The circle labeled "O" (for Object) represents some human's (for example, mine) interaction with *WIGO*. Through my sensing organs and nervous system, I 'create' sights, sounds, smells, etc., from my interacting with *WIGO*. The lines, or strings, which connect the Object level to the Event level represent a specific aspect or characteristic of *WIGO* that I can sense and experience in some **non-verbal** way. Those strings coming from the parabola that I can *not* sense (representing, for example, radio waves), hang free and do not connect at the Object level.

D - The tag "D" signifies the first **verbal** level in the abstracting process. We can label this the "Descriptive" level, and try to remember that what I say, think, hear, etc., at this level about my *WIGO-Object* level experience 'should' be similar to what a good reporter would report - as close to "just the facts" as possible.

I - The tags labeled "I₁", etc., represent the multiple levels of *Inferences* I might construct from my *WIGO-Object-Description* level experience. These inferences will determine what meaning or significance I draw from this experience. As the diagram implies, I can generate as many inferences, beliefs, theories, judgments, conclusions, etc., as I might care to.

FIDO - "FIDO", or an animal, interacts similarly with *WIGO* at the Object level. However, FIDO's capacity to make *inferences* or related associations is finite, unlike a human's.

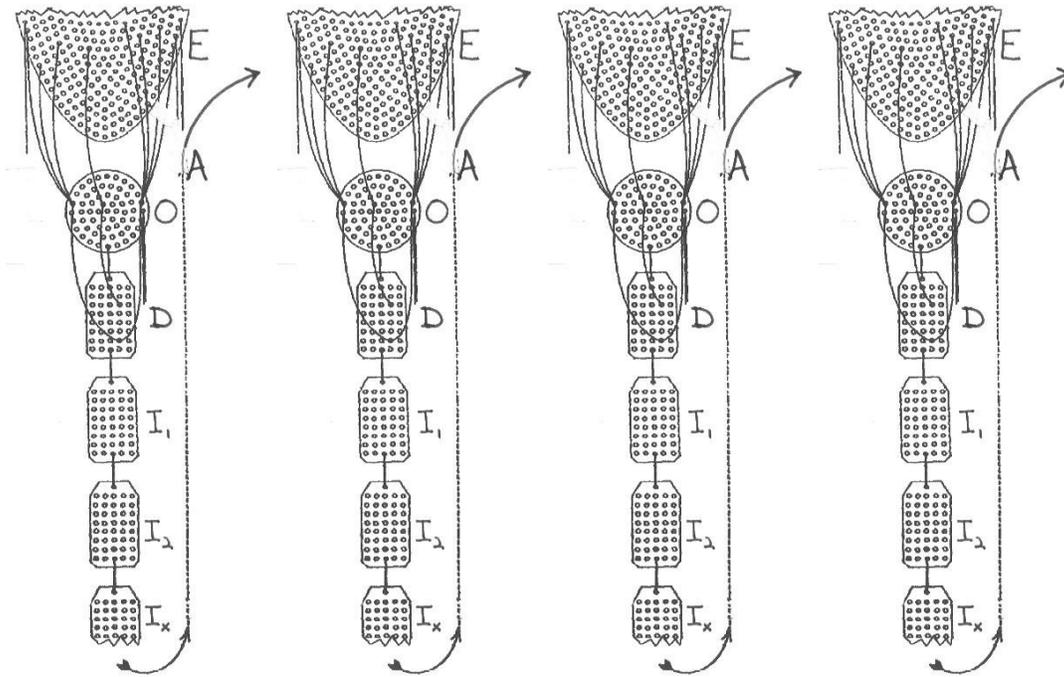
A - The arrow ("A") from the Inference level back to the Event level suggests feedback, or circularity, and '*time*'. In other words, my most meaningful *inferences* from prior experiences can become *Event-level* aspects or characteristics of what I might experience in the future.

I think it's important to remember how '*time*', or *order*, *sequence*, etc., plays into this model. Each *level* of the abstracting occurs in a given *order*, i.e.:

1. Something happens (*Event*);
2. I sense what happens (*Object*);
3. I recognize what happens (*Description*);
4. I generate meanings for what happens; etc. (*Inferences*)

In addition to considering the '*time*', or *order*, aspect of abstracting in the vertical plane of the model, we can also envision a horizontal succession of these abstracting processes, one after the other, for every moment of our lives. In this case, with successive abstracting processes, we can picture the feedback, or circularity, arrow projecting from our prior inference to our next experience:

Time₁ **Time₂** **Time₃** **Time₄...**



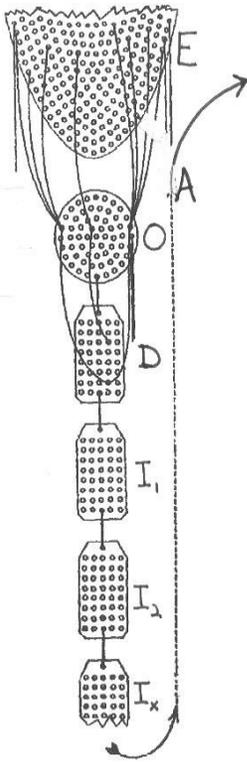
In terms of *differentiation*, we 'should' note that

1. What happens (*Event*) is **NOT** ...
2. What I sense non-verbally within my nervous system (*Object*), which is **NOT** ...
3. What I can describe verbally about my sensing (*Description*), which is **NOT** ...
4. The meaning(s) I generate based on what happened; etc. (*Inferences*)

Similarly, our *experience/inference/meaning* at **Time₄** is NOT the 'same' *experience/inference/meaning* at **Time₁**.

Okay. "**So what? How can I use this?**"

Let's take the situation that Emily brought up during Michelle's presentation ... "**somebody cut me off!**"



E - What is going on? Cars, engines, tires, radios, trees, pedestrians, clouds, sun, rain, wipers ... all composed of sub-microscopic particles at a quantum level which we *infer* based on our latest knowledge of science ...

O - Emily's eyes capture (some of the) reflected light from (some of the) images in her (limited) field of view; the light is transformed (abstracted) by her visual system into nervous system signals that travel to her brain; neurons in her brain process the electrical/chemical signals and cause her to **see** ...

D - ... "I was driving about 25 miles per hour, maintaining perhaps 50 feet distance from the car in front of me. A dark-colored sedan driven by a middle-aged man emerged from my far right field of view. His car's speed was greater than mine. As his car came abeam mine, and then forward of it, his car appeared to accelerate and veer into the lane directly in front of my car. The following distance of my car to his was no more than 10 feet, which **meant** ..."

I - ... "This rude jerk was in a hurry and cut me off when he could've just waited and merged behind me!" ... (blood pressure rising, anger mounting, fists clench the steering wheel, eyes staring at the other driver, foot pressing on the accelerator, trying to catch up, swerving over to the next lane to pass, not checking the traffic ...) "**Damn it! That &%\$)=!@ made me almost have a wreck!**"

Can you see that "somebody cut me off" is NOT *what happened*? Can you see that Emily's hypothetical reaction to *what happened* is not the same as a *description* of what happened?

One of the powerful lessons of general semantics - illustrated by the Structural Differential and evidenced by a consciousness of this abstracting process - is that we can better train ourselves to respond **conditionally** to *what happens* to us. We humans don't *have* to react with a **conditioned** respond like Pavlov's dog, reacting to a substitute stimulus **as if** it were 'real' - but we often do. Our language helps confuse us, because we tend to say things like, "**Ooh, it made me so mad!**" We allow the 'it' - the *event*, the *what happens*, the *stimulus* - to determine our *response*. We need to remember that between the stimulus and your response, there's a **YOU**:

STIMULUS -----> YOU -----> RESPONSE
 Time(1) -----> Time(2)-----> Time(3)

Again, 'time' is an important aspect of our conditional responses. Remember the old adage encouraging you to "count to 10" before getting mad? There's a lot of merit to be gained by practicing your ability to consciously - conditionally - **delay** your responses.

A Summary of "So What?" About the Structural Differential

- **Abstracting** refers to ongoing physiological-neurological processes that occur on *non-verbal levels*
- We can *verbally* differentiate certain phases, or *levels* or *orders*, of the

abstracting process to analyze our behaviors and reactions:

EVENT is *not* **OBJECT** is *not* **DESCRIPTION** is *not* **INFERENCE**, etc.

- We can acknowledge that our abstracting occurs at different '*times*' ... we should expect different results, reactions, responses, etc., from different experiences at different '*times*'
- We have human limitations that constrain our experiences - we never experience '**all**' of *What Is Going On*
- Similarly, we can never '*say all*' or describe '*all*' about our experiences - more could always be said: **Etc.**
- What we experience is, to some degree, a function of our past experiences (feedback, projection, etc.)
- What we experience is, to some degree, a function of the unique capabilities of our individual nervous systems
- We should therefore expect not only to '*see*' things differently, we should expect to *evaluate* and *react* to 'things' differently
- When we *delay* our responses and react **conditionally**, we tend to behave more sanely, more rationally, more appropriate-to-the-'facts' of the situation
- When we react immediately, when our responses are **conditioned** and controlled by the *stimulus* (the 'thing'), we behave like Pavlov's dog and subject ourselves to control by others

Now let's talk about Hayakawa and his *Abstraction Ladder*. (You probably didn't notice, but in discussing Korzybski's Structural Differential I specifically used the word **abstracting** and did not use **abstraction**. Now I'm switching gears.)

Remember that Korzybski came first, developing general semantics throughout the 1920s and publishing **Science and Sanity** in 1933. Hayakawa read Korzybski and attended seminars in the latter 1930s, and wrote **Language in Action** in 1940. (I'm fortunate to have a spiral-bound "2nd Draft" of this book.) It then became **Language in Thought and Action (LITAA)**, was put on the Book of the Month list a few years later, etc. The textbook you have now has undergone several reprints and edits.

Korzybski emphasized the scientific, physiological and neurological bases for his explications of the *abstracting* process(es). Hayakawa focused on the linguistic and semantic/meaning implications of our evaluation processes. His Ladder should not be considered so much as his version of the Structural Differential, as much as his own *diagram* of how we *abstract*, through language, classifications, types, categories, etc., which result in what can be considered as different **levels of abstractions**.

Whereas Korzybski's model represents an ongoing process, Hayakawa's diagram - in my opinion - does not reflect a *process* but instead captures the linguistic *output* of that process. Korzybski deals with **abstracting** - Hayakawa deals with **abstractions**.

Unfortunately, I've loaned my *LITAA* to someone and don't have access to it now. However, I do have the paper I wrote about *LITAA* in 1979, so I can use it for reference to discuss the famous "Bessie the Cow".



"Wealth"



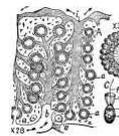
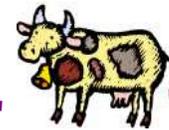
"Farm"



"Livestock"



"Cow"



Organism (pre-verbal)

You can see that the Ladder, in this example, deals with linguistic, or language, manipulations of how we can *evaluate*, or *respond* to, or *view*, Bessie the Cow.

- At the lowest level, we can consider 'her' (I'll make a gender assumption leap, in deference to Alverno) on an organismal level, prior to any verbal label or classification
- Because of language, we can begin to *classify*, or *categorize*, or *label*, this organism due to its similarities (and dissimilarities) in features to other organisms; we say this is a "**Cow**"
- This particular "cow" is observed in an environment with other animals, managed by humans, so we can include "cow" in a *broader*, more *abstract*, less restrictive, classification; we say this "cow" is also a part of Farmer Jones' "**Livestock**"
- The "livestock" exists within an environment with buildings and equipment also belonging to Farmer Jones (or, more probably, Farmer Jones' bank); taken all together, we say this constitutes Farmer Jones' "**Farm**"
- Finally, we can say that this "farm" also contributes to another, even more abstract, classification that we call Farmer Jones' "**Wealth**"

The Abstraction Ladder helps us better analyze our communications, understandings, misunderstandings, etc. If a neighbor rushes up to Farmer Jones and shouts, "*Hey, Jones, your cow is in the road!*", that says something a bit more specific and meaningful to Jones than, say, if the neighbor said, "*Hey, Jones, you've got some of your wealth out in the road.*"

The Ladder serves a particularly useful function in helping us 'immunize' ourselves against political propaganda, advertising, and the like. Hayakawa uses an example such as this: a local politician attempts to drum up support by exclaiming, "*Farmer Jones, vote for me to ensure that Schmokum County serves as a beacon of forward-looking growth and prosperity!*"

As this exhortation contains no specifics, only generalized, highly abstract references, you could infer that this belongs fairly high up on the Ladder of Abstractions. And if Farmer Jones recognizes this, he will likely ask the Schmokum County candidate, "*What exactly do you mean, what will you do?*"

And when the candidate replies, "*Well, er, Jones, what I mean is, uh ... we're going to build a new road right across your farm!*", Farmer Jones has succeeded in lowering the level of abstracted language such that he now understands the candidate's intent.

A current event serves as a glaring example of how people purposefully work to confuse levels of abstraction to suit their own agenda - the tragic case of Elian Gonzalez. Depending on one's ethnicity, political affiliation, geographic location, etc., you will get dramatically different responses to the question, "*What is this case about?*":



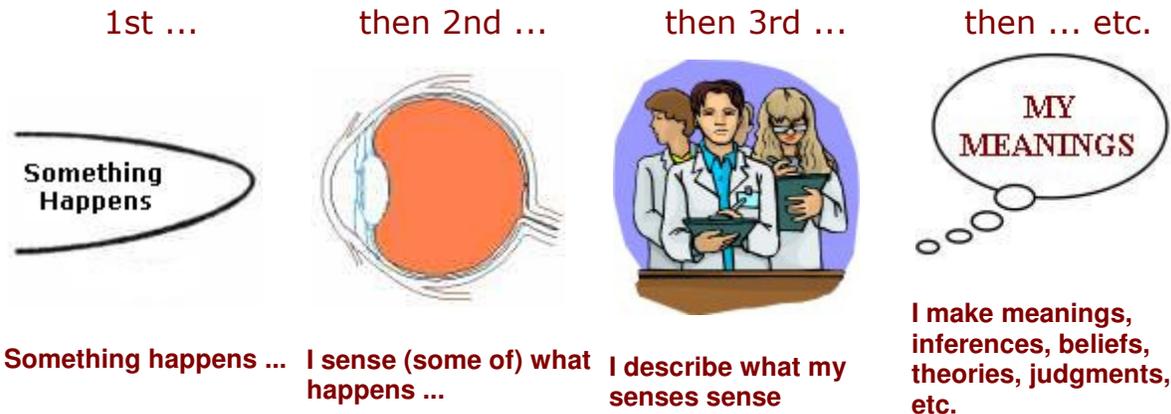
"It's about a young freedom fighter fleeing the tyranny of an oppressive authoritarian state who provides a symbol of hope for all native Cubans yearning for the fall of a vicious totalitarian dictator."
(higher level of abstraction)

"It's about a six-year old Cuban boy whose mother died while illegally migrating to the United States, and whose father now wants the boy to return to live with him in Cuba."
(lower level of abstraction)

Wrapping up ...

Remember that the two models - Korzybski's **Structural Differential** and Hayakawa's **Abstraction Ladder** - were formulated by two different *formulators*, at different *times*, and for different *purposes*. You cannot (in my opinion) use them interchangeably.

You can use the **Structural Differential** when you want to analyze the behavior, responses, reactions, etc., of a particular individual in a specific situation. (Personally, I find this type of analysis works best when the "*particular individual*" happens to be my ownself.) Remember that the Structural Differential represents the *process* of **abstracting**:



The more you 'use' it to analyze your own abstracting, evaluating, inference-making, belief-generating, etc.:

- you will become more aware and conscious of your own abstracting,
- you will better differentiate between: 1) what happens; 2) what you sense of what happens; 3) what you describe of what your senses sense; and 4) what you infer from what you've described
- you will respond more **conditionally** to what happens in your life,
- you will experience less **conditioned** responses (less like Pavlov's dog),
- you will delay more of your responses, leap to fewer conclusions, snap to fewer judgments, make fewer inappropriate assumptions, etc.,
- you will (fill in your own benefit),
- etc.

You can use Hayakawa's **Abstraction Ladder** to analyze intra/inter-personal and group *communications*. Remember that you can use *level* of abstraction and *order* of abstraction somewhat interchangeably ... think of *order* as in *sequence* ... what follows logically and naturally? Lower levels first, then higher levels:

First (Lower Level)	Then ... (Higher Level)
Facts (less abstract)...	... then Beliefs (more abstract)
"Cow" then "Wealth"
the boy Elian then "freedom"

Ask yourself: **Does the level of the language appropriately lead the discussion necessary for a decision?**

I hope this helps you understand some of the differences between Korzybski and Hayakawa concerning *abstracting*. More importantly, I hope that something in this *email-turned-full-fledged-report* struck a chord with you such that you might incorporate general semantics in your daily living a little bit more naturally. Please feel free to write me if you have questions or issues about any of this - I'd love the interaction.

Steve Stockdale, April 2000