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Is NLP a Pseudoscience that Should Be Mothballed?
Point/Counterpoint

the**institute**
for **work attitude** & **motivation**

Is NLP a Pseudoscience that Should Be Mothballed?

Occasionally one of our colleagues sends an article of interest related directly or indirectly to the iWAM. In the fall of 2010, Chuck Appleby (www.applebyandassociates.com) sent an online article entitled "NLP: The pseudoscience that should be 'mothballed'." The article is the next section of this document.

Chuck asked what we thought.

Since the *Inventory for Work Attitude and Motivation* has its roots in neurolinguistic psychology, we deemed it important to read the article and see what questions it raised or answers it provided.

The article Chuck forwarded was written by Donald Clark. Clark's posting on the Internet is based on a pre-publication paper he received from Tomasz Witkowski. The paper was entitled "Thirty-Five Years of Research on Neuro-Linguistic Programming: NLP Research Data Base - State of the Art or Pseudoscientific Decoration?" In it, according to Clark, Witkowski takes all of the current academic work on NLP, including that which purports to support its theory, and puts it to the test.

Since there are people a lot smarter about the history and substance of NLP, we put the article out to some members of the Institute's Advisory Board. Dr. Joe Yeager responded to the call for reactions.

Dr. Yeager is founder and chairman of Sommer Consulting (www.sommerconsultinginc.com) and a long-time devotee of applied psychology. Joe has extensive background in both therapy and business consulting. In work and in life, Joe is a caring, but take-no-prisoners, professional who provides intellectual and experiential foundations to the field of applied psychology. In addition to his consulting work, Joe has lectured and published extensively.

Joe's response to Donald Clark's review is the second portion of this document.

As part of its education mission The Institute seeks to increase insight to and understanding of the role of motivation in the world in which we live as well as the extent to which such factors as motivation and attitude directly impact the performance of people who inhabit our world. We trust this piece helps fulfill that mission.

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Carl L. Harshman, Ph.D.
Founder and CEO
The Institute
December 26, 2010

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NLP: The pseudoscience that should be 'mothballed'

Posted by Donald Clark in <u>Soft skills</u> on Wed, 12/01/2010 - 08:00[1]

Neuro-Linguistic Programming is a technique used by many trainers and coaches within the world of L&D, but many have serious reservations about its validity. Donald Clark presents the case against.

NLP is one of those topics that has been abandoned by academia and psychology but still soldiers on in the training world. To be fair, the NLPers have retreated to a position of 'science and evidence is irrelevant'. However, as Christopher Hitchins often says, "What can be asserted without evidence can be dismissed without evidence."

I was pleased, therefore, to receive a pre-publication paper from Tomasz Witkowski that takes all of the current academic work on NLP, including that which purports to support its theory, and puts it to the test. The paper's title is "Thirty-Five Years of Research on Neuro-Linguistic Programming: NLP Research Data Base - State of the Art or Pseudoscientific Decoration?"

Why is NLP completely absent from psychology textbooks?

Despite its aggressive marketing and application in training, Witkowski asks; "Why is NLP completely absent from psychology textbooks?" Rather conveniently, Richard Bandler didn't think that empirical testing was necessary and is openly contemptuous of such an approach. However, it is important to look at the theory from a perspective that is free from the biases of its practitioners (as they believe the theory and make money from the practice) and the patients (who may be subject to manipulation and false belief).

Neuro-Linguistic Programming research database

Witkowski starts on NLP's home territory with the Neuro-Linguistic Programming Research Data Base found on the **<u>web pages of NLP Community</u>**. It is the largest of such databases and includes hundreds of empirical studies from 1974-2009, and is often used by NLP proponents to defend the empirical nature of their theory and practice. First, he applied a credibility filter to the database (the respected 'Master Journal List of the Institute for Scientific Information in Philadelphia') to identify the reliable journals. This took the 315 down to 63.

> *"It is important to look at the theory from a perspective that is free from the biases of its practitioners and the patients."*

A qualitative analysis of these 63 articles showed; 33 relevant empirical studies, 14 that were of little or scientific significance and 16 that appear to have been included in the database by accident, as they weren't relevant. Of the 33 relevant papers; 18 were non-supportive of the NLP tenets and the tenets-derived hypotheses (54.5%), nine supported NLP tenets and the tenets-derived hypotheses (27.3%), and six had uncertain outcomes (18.2%).

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[1] http://www.trainingzone.co.uk/taxonomy/term/16

He then applied a national test, based on relevance and impact, to find that the papers not supporting NLP had more status in the academic and professional world. He concludes that, "The numbers indicate unequivocally that the NLP concept has not been developed on solid empirical foundations". His point is that the numbers alone don't tell the whole story, what matters is the weight of the evidence. A problem uncovered in the supporting papers was the common absence of a control group, and trials that could not be seen as scientifically valid.

The non-supportive papers, that showed no evidence for the eye movement hypothesis (Thomason, Arbuckle & Cady, 1980; Farmer, Rooney & Cunningham, 1985; Poffel & Cross, 1985; Burke et al., 2003) and preferred modalities (Gumm, Walker and Day (1982), and also Coe and Scharcoff (1985)), were much more rigorous. Elich, Thompson and Miller (1985) tested claims that eye movement direction and spoken predicates are indicative of sensory modality of imagery and showed no evidence for the NLP-derived hypotheses. Graunke and Roberts (1985) tested the impact of imagery tasks on sensory predicate usage, again showing no evidence for NLP theory. By this point the case was clear; the case for the defense was baseless.

Sharpley, Einsprach & Forman and Heap

Witkowski builds on the metastudies of Sharpley, Einspruch & Forman and Heap published in the 80s, to show that NLP claims are still unproven. Interestingly, 11 of the original Sharpley studies (1984) are not in the NLP database. Not surprising, as Sharpley in his first review dismissed claims of PRS, eye movements, self-reporting, predicate matching and the ability of NLP to change clients. In his second review, building on the results of Einspruch & Forman (1985), Sharpley (1987) he went even further, dismissing the claims made for its therapeutic benefits, namely anxiety, pacing and metaphor. Finally, NLP is dismissed as a method for improving performance by the US Army (Swets & Bjork, 1990). "The conclusion was that little if any evidence exists either to support NLP's assumptions or to indicate that it is effective as a strategy for social influence." Heap (1988) drew similar conclusions, after examining 63 empirical studies. PRs, eye movements, predicate matching and their role in counseling were dismissed as baseless. This is exactly what Witkowski confirms, when considering subsequent research.

Bifurcation from academia

Witkowski's discussion is particularly relevant. He makes the point that much of the research in the 80s was designed to test NLP on the back of its popularity. The file drawer effect would suggest that many non-supporting studies were quietly dropped. What is clear is that there was a stark bifurcation between theory and practice. The NLP community went on to aggressively market its wares, while serious academia ignored the whole field as irrelevant and unworthy of research. This is similar to the difference between astrology and astronomy. No one is interested in testing astrology, as it is so patently weak in its hypotheses and predictive ability.

Conclusion

What is so powerful about this paper is the fact that he uses NLP's own database to expose their 'supporting evidence', and found it wanting. A damning statement is made about the status of the evidence invoked by NLP theorists and practitioners, "The base (NLP database) is commonly invoked by NLP followers and indicated as evidence for the existence of solid empirical grounds of their preferred concept. It is most likely that most of them have never looked through the base. Otherwise they might have come to the conclusion that it provides evidence to the contrary – for the lack of any empirical underpinnings".

This is pretty damning. The paper asks a key question: "Is using and selling something non-existent and ineffective ethical?" Witkowski's answer is clear: that it is "pseudoscience" and should be "mothballed".

Citations:

Sharpley, C. F. (1984). Predicate matching in NLP: a review of research on the preferred representational system. *Journal of Counseling Psychology, 31,* 238-248.

Einspruch, E. L., & Forman, B. D. (1985). Observations concerning research literature on Neurolinguistic Programming. *Journal of Counseling Psychology, 32,* 589-596.

Sharpley, C. F. (1987). Research findings on Neurolinguistic Programming: nonsupportive data or untestable theory? *Journal of Counseling Psychology, 34,* 103-107.

Heap, M. (1988). Neurolinguistic programming: An interim verdict. In M. Heap (Ed.) *Hypnosis: Current Clinical, Experimental and Forensic Practices* (pp.268-280). London: Croom Helm.

*Donald Clark now 'thinks, writes and talks' on learning. Check out his **YouTube video** and **blog.** Donald spoke in **The Big Debate** on 2 December at Online Education.*

A Review of the Review:
A Response to Calling NLP a Pseudoscience

by

Joe Yeager, Ph.D.

Introduction

We begin with some perspective. At the time I graduated from college, I came across a book called *Psychotherapy: 36 Systems*. Does that not convey, at the time, the fact that hardly anyone had a clue about what would work in psychotherapy? Also, at that time, "cognitive psychology" did not exist. Dynamic, Freudian, and Behavioral psychology ruled the roost. The field of psychology has progressed significantly since the days of my graduate study and yet we continue to have dialogue about issues that are more than half a century old.

My personal and professional reactions to Donald Clark's well-intended, but mis-directed work follow. I concur that the subject of NLP and it bases needs to be explored. I do not agree that his exploration or his conclusions add enlightenment to what is known about the field. At the same time, I do not profess to be either an expert in or a purist devotee to the field of NLP. I was part of it, learned from it, and have benefitted for the last two decades in my work as a result of that association. What follows is based on experiences, relationships, learning, and applications from the field of NLP.

My overall intention is to attack the issue not the person (in the form of Donald Clark) and to provide an alternative perspective on the subject he brought to the table. My premise is simple: NLP has done some very good, unpublished, and unrecognized work, the science of which is a lot better than much of what passes today as conventional wisdom in the halls of mainstream psychology. At the same time, NLP, like much that goes on in universities, has produced its share of embarrassments. I am aware of and acknowledge the upside and the downside of NLP in this article.

The Beginning

I watched NLP (Bandler and Grinder) operationalize a series of repeated procedures that produced cures (Yes, actual cures!) that the academic community could not understand, much less copy. At that time, the "flat Earth" premises of the academic community prevented them from noticing a lot of valuable work in NLP. Academics lived in and by the world of their theories. NLP was a "grass roots" movement that came from and contributed to a model based on simple experiments and observation. NLP was the "black sheep" of the family called psychology.

The fact is you could NOT get a reliable phobia cure (nor get most anything cured) until NLP came along. Wolpe's Systematic Desensitization, for example, was a crude early entre that rarely worked. Wolpe did not know how the mechanism of action in a phobia worked, but like

much of the history of science he got a lucky fix here and there. Bandler and Grinder actually worked out that mechanism as well as many other clear, definitive, and winning procedures.[2]

Over the next generation or two of graduate education (after my own graduation), I watched conventional university psychology "re-label" NLP into "cognitive psychology" and then award mainstream status to it. This is the way our politicians in Washington claim policies and programs they have not created. It is the equivalent of the "leader" whose fame is based on jumping in front of the right parade.

Aaron Beck, known for depression cures, is an example. When I last looked, his methods were "clunky." I even went to the point of writing about Beck's seemingly flawed work in a published article. Beck's premises were: "You diagnose the person to produce a label called depression. Then you treat the ***depression***, i.e., the ***label***, until the person shows improvement." My counter-claim is that you are NOT treating the person and you are not treating a mechanism of action. You are treating a fiction (officially psychology labels them "constructs") called depression.

When you look at the source material of Beck, you will see that he is <u>treating the label</u> and *is unaware* that he is treating the label instead of a mental or linguistic mechanism of action. Beck and his peers conceptualized that "depression" could be engaged in conversation, presumably while the rest of the person goes on a mental vacation. As soon as Beck is done treating the label, the person comes back into the picture. How is this different from the "science" of astrology?

All of this is to say that, in general, there seems to be considerable ignorance—in the sense of not knowing or being unaware—about both how NLP got its reputation and the extent to which it deserves it or not. I proceed based on the concurrent beliefs that NLP is stronger and better than claimed by many in mainstream psychology and that mainstream psychology, itself, suffers from considerable misguided notions about truth and the state of mankind.

Now to the Topic at Hand: A Review of the Review

If you are a professional psychologist (or something like one), **then** you should be able to conduct serious experimental science on your own rather than simply relying upon the works of others with which you may not be familiar. Further, the scientific method which underlies much of research has both inductive and deductive components. To get closer to "truth," the outcomes of scientific research must meet the standards of both.

The reviewer of this article, Donald Clark, fails the deductive test. He condemns using a technique that any "Linguistics 101" practitioner recognizes as based on a language/logic flaw called a *generalization*. An example of generalization is: "He is a man; all men are bad; therefore, he is bad."

That kind of generalization is the equivalent of damning all foods because some spicy foods cause "indigestion" (and indigestion is bad). In this analogy, we know that alimentary canal

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[2] We recommend that a reader who is convinced that we have the "right" model of science read or re-read Thomas Kuhn's *Structure of Scientific Revolutions* (1972, 2nd edition, University of Chicago Press) for some history of science that provides some insight into how often, historically, we got stuck in the paradigm of the times.

**digestion**, or its antithesis, is a **_label_** that represents uncounted thousands of specific complex chemical reactions and physiological conditions. If you don't understand the chemistry of digestion and you speak as though you know of it, you are, instead, the proud holder of an _opinion_ about the relationships between foods and "digestion," not a bearer of scientific substance. Moving from language and logic to practice, we find that medical science has only a rudimentary understanding of digestion. Yet, physicians continue to prescribe treatments in light of this modest understanding of the potential impact on a patient's innards.

If NLP is guilty of half knowledge, who will be the first to stone them unless they include other "scientists" such as physicians and other half-informed psychologists in that stoning?

I grant you that a lot of NLP practitioners can be faulted because they were products of the "monkey-see-monkey-do" methods of treatment. As a result, they had a procedure, but did not know what they were doing, literally, to their patients. Sad to say, I had to "undo" a lot of failed procedures done by erstwhile NLP practitioners who should never have been given a "license to drive" the NLP technology.

We cannot permit self-appointed critics to criticize or downplay the substantial discoveries of NLP based merely on their **_own (invalid) opinion_**. That simply puts them in the same "Ship of Ignorance" that a lot of the NLP-trained people are sailing.[3]

The researcher's greatest crime against the "State of Knowledge" is to generalize condemnation of all NLP by focusing on only some of its parts. (I'm tempted to say that it gives me indigestion, but I'll pass on that.) The author invalidates his case when he condemns the whole by using only his (favorite?) selected parts of the facts.

That is like condemning cars because yours has a flat tire. To create a legitimate and valid case he needs to know and take into consideration both the whole and the part(s) involved in this argument rather than setting arbitrary boundaries in order to make the case he appears to want to make.

The end product in this case is, as one of my fellow professionals is fond of saying, a product of "mistaking opinion for wisdom."

A Mainstream Case Example

A few years ago, in one of APA's flagship journals, some authors actually went to the trouble of conducting an experiment to prove there was a phenomenon called "rapport." (I can't remember the issue, but it is in the stacks somewhere.) As I recall, it went like this:

- An interviewer went to the trouble of establishing rapport with individual subjects (one at a time) during an interview about some artificially-constructed "distracter" topic.

- The same interviewer went to the trouble of NOT establishing rapport with other subjects (one at a time) during an interview about the same artificially-constructed "distracter" topic.

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[3] We are aware that we shifted, rather than mixed, metaphors on you. We went from land (driving) to water (sailing), but for us, variety provides some spice to life . . . and to reading.

- During the interviews with both types of subjects, the interviewer clumsily (on purpose) spilled a box of pencils on the floor.

Lo and Behold! . . . as they say in some circles:

- The interviewees, with whom the interviewer established rapport, helped the interviewer pick up the pencils.

- The interviewees, with whom the interviewer had not established rapport, did NOT help the interviewer pick up the pencils.

The experimenters got published in a flagship journal by demonstrating that rapport directly affected behavior in a predictable manner.

"Go figure?" or "how hard is that?" is what they might ask in other circles.

The answer: Not hard at all.

NLP Scientific Accomplishments—Published or Not

I might also call this my "Top 3" of the NLP accomplishments.

#1 – What NLP calls an "Anchor"

In Pavlovian terms, an *anchor* is a simple Stimulus>Response event defined in linguistic terms.

In new-speak-NLP terms, an anchor is a whole series of linguistic events in the "S".

The last step in the linguistic "S" is followed by an observable "R".

NLP made a science of parsing what went on the "S" as a linguistic system. The parsing identified the literal motivation or decision 'grammar'—akin to grade school grammar—embedded in language.

#1 (tie) – Establishing "Context" as Relevant

In the theoretical world of the universities there was a conceptual bias. Theorists deemed *context* as irrelevant in their search for "context-free" generalizations.

They were still busy (during my career) trying to continue the "psychophysics" of physics—envy left over from the early 1900s.

Academics said that "If physics could do 'context free', so could psychology!"

Wrong!

NLP established that the S in the S>R model is *context dependent*; therefore, in turn, the "R" is context dependent.

Change the context and you can change either-or-both the "S" and the "R".

Here's an example of the effect of context.

Suppose I am at the company December holiday party wearing a lampshade on my head and am generally having a good time.

Then the boss shows up. I quickly lose the lampshade and my behavior immediately gets very "sober."

The appearance of the boss represents a linguistic context change and, as a result, my behavior changes.

Theorists who believe that "happy-time" behavior is a result of a generalized trait of mine are perplexed by their model. With all their academic training, theorists can find a way to explain (away) my sudden and unruly departure from the generalized prediction of "happy time" behavior, but the explanation will hold far less water than the principle of context shift.

#3 – The Systems Perspective

"A sentence is a group of words expressing a complete thought" according to most grade school grammar books.

A complete thought, then, is a "system" according to the logic of folks like Norbert Wiener and Ludwig von Bertalanffy.

Language is a meta-system. A system has rules. Rules mean prediction.

Lots of folks before Bandler and Grinder—Hayakawa, Korzybski, Whorf, and Chomsky, for example— figured this out.

But in academia the language department was separate from the psychology department. In this silo-structure intellectual environment, there has been a Cold-War-type Berlin Wall of "not invented here" that prevents the integration of microcosmic facts into macro-level knowledge.

Text books full of dead-end theories suddenly became obsolete with the arrival of linguistics' on the scene.

So what?

So, what's the point?

The point is that there are lots of stakeholders who have stock in the current academic and intellectual models. Anything that threatens the integrity, accuracy, or stability of that model will be met with resistance, not open arms.

If the current paradigm acknowledged the discoveries and contributions of NLP, they would simultaneously be rejecting some of their core notions and approaches. That will not happen quickly or easily. Again, we reference the works of Kuhn and von Bertalanffy for explanations of why this is the case.

Guilty by Dissociation?

Apparently, NLP practitioners are guilty of the *error of omission* if they do not do this kind of research. Here is my experience, not to be confused with opinion:

- I have personally witnessed countless demonstrated unpublished "experimental proofs" like this sample experiment on rapport that got published.

- All of the proofs I witnessed or demonstrated were fully as publishable as this example. (This might count as an opinion . . .)
- When I saw the rapport experiment in print, I sighed and said to myself: "We proved that damned topic over 35 years ago, but we didn't publish it (at least not in that form)."

So as a licensed and published psychologist, I have to say that NLP has failed to document and publish its results and its reputation has suffered as a result. In this area NLP was guilty of shortsighted practitioners. The fact that publishing is of little concern to the field does not change the fact that: "When they do bother to prove their case—I have seen them prove it over and over again—NLP delivers the goods with a trained practitioner, but not so with a store-bought certificate."

Here is an Illustration:

I had a highly-placed friend, now deceased, in a psychology department. He criticized me for exploring NLP. He had been getting conventional talk/dynamic therapy for years with no discernable results. I once did a demonstration technique on him and actually cured one of his problems (and it never recurred). Afterward, I asked him why he continued with conventional therapy that yielded no results. And I asked the reciprocal: Why not do some more NLP therapy that would deliver results? His answer was telling. In summary, this is what he said to me.

> "Conventional therapy is like a prom date I would proudly take to the prom and feel comfortable with my peers' reactions. Being of good family, I am sure I would <u>not</u> get 'lucky' with my date at the end of that evening. On the other hand, if I wanted to get 'lucky,' I would date NLP, but would never let my family or friends know of this lapse in my judgment."

These days, many "cognitive psychologists" similar to my friend are the "relabeled" NLP practitioners. Eventually my friend used NLP but refused until his dying day to call it by its real name.

On the other hand, I have published a lot and left a nice trail of breadcrumbs in my wake to prove that NLP technology not only exists, but also solves problems while mainstream psychology ignores NLP's existence and continues to pursue solutions to problems that have been solved.

So, to a large extent, NLP critics have, in the style of the wisdom of the Medieval Era, reached conclusions and then assembled their criticism and data to prove their presumptions. They are the smug equivalent s of prosecution lawyers whose careers depend on being successful critics instead of successful scientists. Fortunately, in my experience, scientific proof trumps one-sided, legalistic, poorly-researched argument.

Many facets of mainstream psychology are still saddled with the same concepts and theories they had 50 years ago. For instance, mainstream research still fragments more than it integrates. One author said that the community of scholars in psychology suffers from the

"toothbrush problem." The toothbrush problem means that "Psychologists treat other peoples' theories like toothbrushes – no self-respecting person want to use any else's."[4]

No self-respecting, ambitious, Ph.D. would dare use someone else's theory any more than they would use another person's toothbrush. They feel compelled and supported by the "system" to create a new addition to the theoretical trash pile. Such an approach to problem solving the mysteries of the human universe can only take place in academe. In the world of business, the attitude and corresponding behavior would not last long. One response to this situation led Chairman Mao to send folks with that attitude to plant rice for a few years to help them get real. Or, as the Captain said in *Cool Hand Luke*, ". . . you're gonna get your mind right."

Opinion reigns when technology lags. How effective is a more experimental approach than a theoretical approach? As with any new technology, like the actual contributions of NLP, one can expect resistance from the "not invented here" people.

There's a famous true story about how the leading scientists of the world reacted to Einstein's publishing of his "Theory of Relatively". The critics banded together and wrote a counter-argument to Einstein's theory, and it was presented in a paper called "100 Against Einstein". When a reporter asked Einstein what he thought about their rebuttal, Einstein replied calmly, "If they were right, it would only take one." Case closed. So I think we can comfortably reject the bulk of these critics of NLP. After all, I could write a dictionary-sized book of the current flaws in many of the most-respected, refereed work currently in print.

I have never heard of the data bases this author cites. Since I do not read those data bases, I am tempted to conclude that they are likely to be flawed. But, I could be wrong about that. At this point in my life, I have enough on my plate doing real-world experiments that solve real engineering problems with well-organized solutions that trump about half of the published, pointless literature in print today.

If you think I am a bit too acerbic, consider this. I read something in an APA journal a couple of years ago that said in essence: "Dammit guys! Do you realize that new Ph.D.'s are being granted to the current generation of graduates who are writing their thesis on topics that were actually proven 40 or 50 years ago?" I can't remember that issue of the journal either. But, I'll leave it to academics to check it out.

I do, actually, read APA and APS journals. I have done some editing for them, too. Every once in a while someone from the "cognitive psychology/NLP" community publishes something we have known for more than three decades using "experimental" methods that earned Ivan Pavlov a Nobel Prize. Now if you want to take on Pavlov, you are going to get some serious flack, even from the "mainstream" psychology community.

I am not even considering knocking Pavlov. I am, however, setting this criticism aside because the underlying work leads to premises that are not consistent with what we know and experienced in the last three decades. I suggest that other readers consider doing the same.

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[4] See Walter Mischel's article, "The Toothbrush Problem," at http://www.psychologicalscience.org/observer/getArticle.cfm?id=2430