

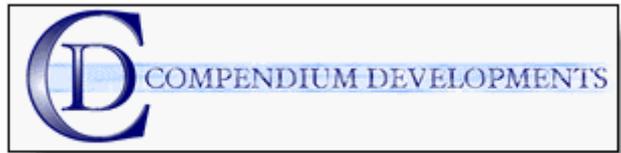
# NLP For Testers

## - A Brief introduction

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This paper will provide a brief introduction to:

- Neuro-Linguistic Programming™ (NLP™), the branch of psychotherapy that constructed the Meta Model
- The roots of NLP
- How to learn more about NLP

*'If we spend our time looking for causes instead of structure we may as well give up the idea of therapy and join the group of worrying grandmothers who attack their prey with such pointless questions as "Why did you catch that cold?" "Why have you been so naughty?"'*

Fritz Perls,  
The Gestalt Approach

## Introduction

Software testing is a skilled profession. Some of our skills are described in testing books, some are people skills, and some are skills that we can learn from interdisciplinary study.

I have found a good source of learning skills useful to my testing, has been in books explaining psychotherapeutic processes and the questioning skills used by therapists.

When doing software testing we learn about, and build up a model of, the system under test. A model helps us identify what questions we need to ask next of that system. Parts of the model are from our experience of similar systems; parts are from requirements and specifications. And parts of the model are built based on our observations of the systems' responses to our questions – our usage and our testing.

## What is NLP?

*“When dealing with the insane, the best method is to pretend to be sane.”*  
Hermann Hesse (1877 - 1962) (attributed)

NLP is used in many fields of endeavour, from sales, and training, through to therapy and hypnosis.

The developers of NLP describe it as "the study of the structure of subjective experience and what can be calculated from that". Back in the '70s, the developers of NLP studied the most effective psychotherapists that they could find, to identify how those psychotherapists were able to achieve amazing results with their clients.

The initial study of these therapists resulted in a model of language and communication called the 'Meta Model': the questions (or challenges) that therapists used and the client responses that resulted from, or led to, those questions being asked.

NLP makes accessible some of the techniques of psychoanalytical luminaries such as Virginia Satir, Milton Erickson, Frank Farrelly and Fritz Perls.

## A quick note about therapy and software testing

When psychotherapy works, it gives the client choices about their life. The essence of the therapeutic process is to help the client realise that they have choices and give them whatever skills and resources they need to help them make those choices effectively.

The Meta Model gives therapists choices in how they approach therapy.

In 1948 Theodor Reik wrote 'Listening with the Third Ear', an analysis of the experience of a Psychoanalyst. 'Psychologists...are born, not made. Psychological interest and the gift for psychological observation are as inborn as a musical sense or a mathematical talent. Where it is not present, nothing – not even courses, lectures, and seminars – will produce it.'

The view that Psychology was a talent and not a skill was pervasive, and in some quarters, probably still continues to this day. In this view Psychology was an unconscious process where 'psychological insights are won either as a result of long and patient mining, or of sudden flashes emerging from unconscious depths'.

Therapy was something that took a long time and could not be taught.

When NLP was being created, Psychoanalysis was going through something of a renaissance. Some therapists were achieving dramatic results, and achieving them quickly, and managing to teach what they were doing. These therapists were looking at 'how' clients were doing what they were doing rather than why they were doing it.

NLP set out to learn how these therapists were doing what they did, in order to do it faster and to make it even easier to teach.

I have heard people say that Software Testers are born not made, fortunately I can't attribute this statement to a printed reference as it seems that the writers of Software Testing know that they have learned to do what they do, and that they continue to learn more in order to do it more effectively.

As testers we examine what we do in order to effectively teach others and to learn how to do it more effectively ourselves. NLP set out to do this with therapy and the techniques that they utilised to do that can be applied to Software testing.

NLP pulled together lots of different techniques and models based on psychotherapy in order to be able to apply them. And this was a process of transformation, which was itself subject to deletions, distortions and generalisations. So what we have in NLP is a useful model of the items that it pulled together. As part of a process of interdisciplinary learning, going back to the original sources and identifying portions that were deleted or distorted for the purposes of constructing NLP, is very useful and is one reason for mentioning the roots of NLP.

Therapists do not simply use the Meta Model. The Meta Model is used to query the client's model of the world and when the therapist has a rich enough model, the therapist applies their own therapeutic techniques. The Meta Model is not a replacement for Software Testing techniques; it is one more tool for our toolbox.

## **Madness, People & Communication**

*"Insanity: doing the same thing over and over again and expecting different results."*

**Albert Einstein (1879 - 1955) (attributed)**

I've seen development companies doing the same thing over and over again and expecting different results. Just because we failed last time doesn't mean it will happen again. "We have learned from our mistakes" as we proceed to repeat them again. I've been on that project and I suspect that you have too.

Software development is all about people and communication, their beliefs and ability to project internal representations externally.

Software Requirements can be viewed as beliefs about software. Our beliefs change over time and we refine them as we learn more about our world and how we interact with it. As beliefs, the requirements are simply a surface structure communication of that belief, and it should come as no surprise that requirements change, or are refined during a development process. Ofttimes we talk to people and assume that they share our beliefs in the same way as we do, because on the surface, our communication appears to match. Sometimes it is only later that we realise that our beliefs did not match at all.

The construction of software requires hallucination on the part of the people involved in the development process. To imagine how the software will be used, and what it will look like.

The software developer has to communicate his beliefs and hallucinations about the software to the computer in a form that the computer can deal with.

NLP (Natural Language Processing) is where computers process human communication, most of the time we communicate to computers in their own language.

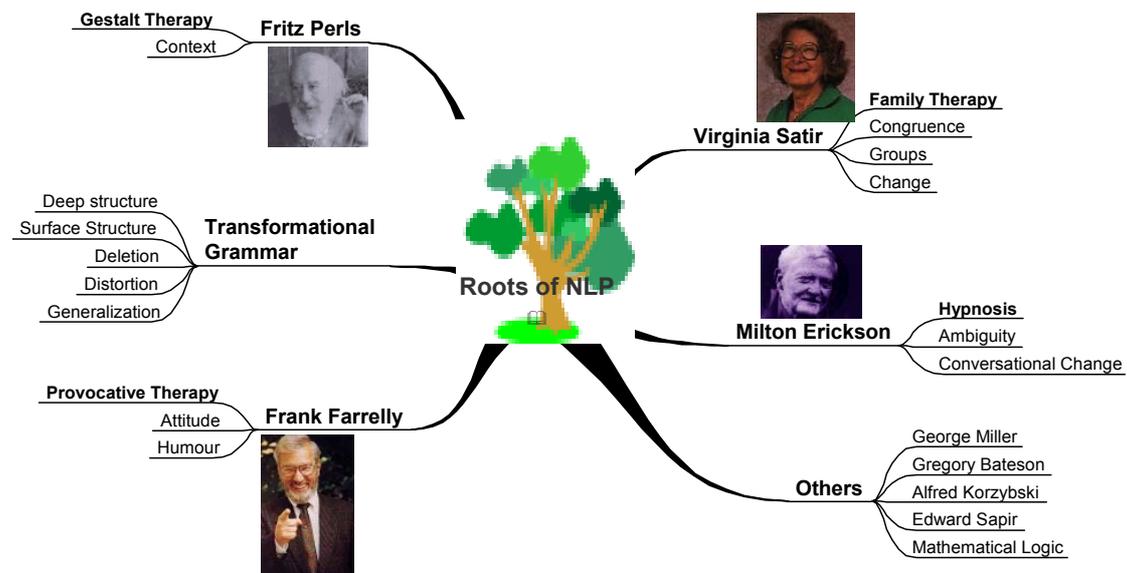
NLP (Neuro Linguistic Processing) looks at how people process human communication, how we communicate with ourselves and how we communicate with other people.

Software testing looks at the mistakes that people make when they communicate, mistakes in understanding between what the user says and what the developer hears (which can result in defects in the system), mistakes that the developer makes when they communicate their beliefs to the computer.

## The roots Of NLP

NLP arose as a result of modelling effective therapists, studies of system theory and mathematics, and models of human psychology. This section describes four of those therapists work, and one linguistic model of communication.

This provides some groundwork for an understanding of the Meta Model and for future interdisciplinary study.



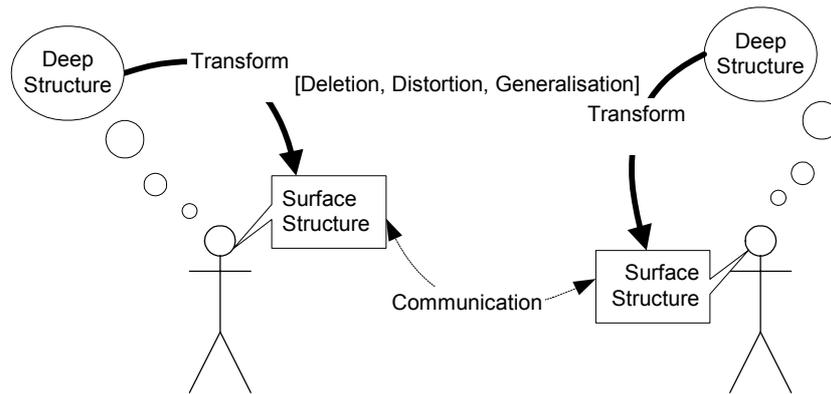
## Transformational Grammar

*“What transformational grammarians have done is to develop a formal model of our language, a model of our model of our world, or, simply, a Meta-model.”*

The Structure of Magic Vol 1,  
Richard Bandler & John Grinder

Transformational Grammar derives from Chomsky’s work in linguistics. NLP used the ‘surface structure <math>\leftrightarrow</math> deep structure’ model.

In order to communicate, we transform our deep structure (our model and experience of the world) into a surface structure (the things that we say). The surface structure is not the entirety of our richer deep structure model and we can transform our deep structure model into numerous surface structure representations.



*NLP Deep/Surface Structure Model*

*“When humans wish to communicate their representation, their experience of the world, they form a complete linguistic representation of their experience; this is called the Deep Structure. As they begin to speak, they make a series of choices (transformations) about the form in which they will communicate their experience. These choices are not, in general, conscious choices.”*  
*The Structure of Magic Vol 1, pg 35*

Deletions, distortions and generalisations occur as part of the transformational process so although we may know what we want to say, we somehow can't say it effectively, or we miscommunicate it.

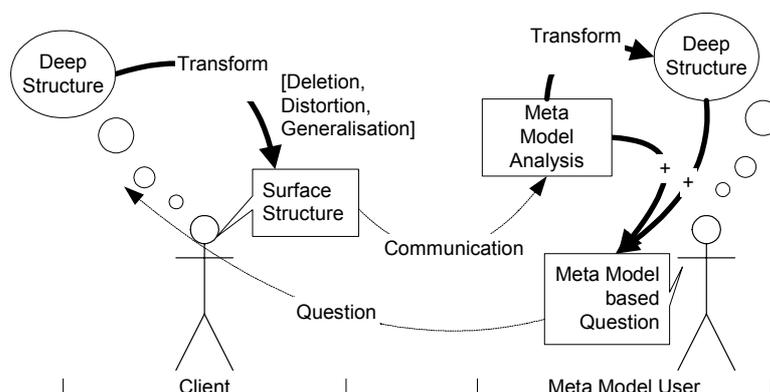
Software Requirements can be thought of as surface structure representations of the User's much richer deep structure representation of the required software.

When using the Meta Model, we analyse the surface structure communication that is presented to us, and then ask a Meta Model question in order to receive more information about the client's deep structure. This is presented to us in the form of another surface structure representation.

The process can help the client understand that they have a richer representation of the world than their surface structure communication suggests.

For Example: “I bought a Computer” is a surface structure representation of a deep structure. The deep structure contains all my memories of buying a computer, the strategies I used to decide which computer to buy, all the computers I discarded before choosing the one that I chose, how I felt buying the computer, how much it cost, was it value for money, what the shop/salesman was like. All of this has been deleted in my transformation from the Deep Structure to the surface structure statement.

The work of various therapists was examined in Transformational Terms to build a model of what processes the therapists used to examine the transformations the client used, and what transformations the therapist applied to the client's statements to produce a response for the client.



## Virginia Satir & Family Therapy



*“...I too see, hear, feel something, think something, have a past, and have values and expectations; and my body is doing something. You don't really know what I am sensing, what I am feeling, what my past is, what my values are, or exactly what my body is doing. You have only guesses and fantasies, and I have the same about you. Unless the guesses and fantasies are checked out, they become the “facts” and as such can often lead to miscommunications and traps.”*

Virginia Satir  
The New Peoplemaking

Virginia Satir's work has been brought to prominence in the software world by Jerry Weinberg. Virginia wrote the foreword to Jerry's classic 'Secrets of Consulting' [JW1]. Both 'Secrets' and 'More Secrets' [JW2] are based on Virginia Satir's self-esteem tools but expanded by Jerry. Virginia Satir's work has also been presented to testers as a model of change by Joanna Rothman [JR1], and mention has been made to her work in many Software Testing papers.

Virginia Satir is famous for her work in the realm of Family Therapy, particularly Conjoint Family Therapy where she worked with the whole family as a group. In this way she was tackling the relationship dynamics of the whole group and helping each member of the group see the position of the other people in the group.

Of all the people that influenced NLP, Software Testing has already been influenced by the work of Virginia Satir. This might suggest that the other therapists modelled by NLP could have some relevance to Software Testing too.

*Congruence, Self Worth, Parts Party, Group Dynamics, Growth Model, Survival Stances, Change Model*

## Milton Erickson & Hypnosis



*“In everyday life you overhear people saying to themselves, “Now just how did I do that?” What they mean is, they don't know how they did it. They have only an incomplete view of how they did it. They then have to recover, step by step, the manner in which they did it.”*

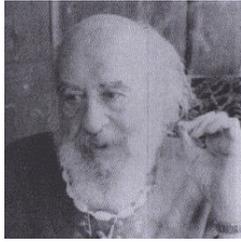
Milton H. Erickson  
Hypnotic Realities

Milton Erickson was incredibly influential in the field of Hypnosis and there is a whole field of hypnosis called 'Ericksonian Hypnosis' based on his work with non-inductive hypnosis.

Erickson influenced NLP based on his approach to communication and leading people to different states of trance in a conversational manner. His approach was modelled in 2 NLP books 'Patterns of the Hypnotic Techniques of Milton Erickson' volumes 1 & 2 in a model known as the 'Milton Model'. The Meta Model is used to remove ambiguity in communication whereas the Milton Model is used to create ambiguity in communication in order to induce trance and communicate via metaphor.

It sometimes seems to me that software development documents have been produced in accordance with the Milton Model to deliberately induce states of trance and harness the power of ambiguity. So that everyone thinks they agree on the contents and yet each person has managed to personalise it and create their own conflicting model of it. Software Testing documentation is not excluded from this statement, watch what happens when you hand someone a document and say “This is my testing strategy” – did you notice their eyes just glaze over?

## Fritz Perls & Gestalt Therapy



*"...contact always occurs on the surface, it is the surface that the therapist must see. But make no mistake about it, that surface is much broader and more significant than the orthodox therapist will admit. First of all, their preconceptions prevent them from seeing much of it. And second of all, they tend to take it for granted, to talk about it contemptuously as 'obvious.' This is where they make their biggest mistake. As long as we take anything for granted and dismiss it as obvious we have not the slightest inclination to make a change nor do we have the tools with which to do it."*

Fritz Perls,  
The Gestalt Approach

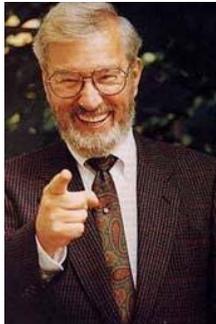
The context in which we apply our trade as testers is become more widely discussed in the testing literature. Gestalt therapy deals with the context that the client deals with, reconnecting their context to what is actually happening now instead of what they want to happen or what they imagine is happening, or constantly dwelling on what has happened. Moving from their representation of the world to become aware of the world.

Fritz would ask his clients to fill in the gaps in their experience to explore the Gestalt of their experience. To help identify the communication elements that were not communicated.

Test Process Improvement can be viewed as a process whereby we connect our testing process to the 'Now' of the software development process. Become connected with and aware of the realities and the needs of our context, to perform more appropriately in that context and improve our dealings with it.

*Context, Analysis, What is happening now instead of idealised representations of what should be happening, Awareness*

## Frank Farrelly & Provocative Therapy



*Q.: Do you keep provoking the client or do you drop this in the fourth stage of process when the client is bringing in a lot of data that he's changed?*

*R.: Why quit betting on a winning horse? No, I keep it up. Clients by this time will usually ask the therapist to be friends and "straight" with them, to which the provocative therapist characteristically responds, "Friends!?! Do I look like the kind of guy who would take an emotional cripple home to dinner? For my hourly fee I'll talk with you, but be friends...? Come on, be reasonable now"*

Extract from Question & Response #24  
Provocative Therapy,  
Frank Farrelly and Jeff Brandsma

[www.provocativetherapy.com](http://www.provocativetherapy.com)

Frank Farrelly expanded the remit of therapy to include humour, honesty and provocative statements.

His aim being to provoke the client into

- affirming their self worth,
- asserting themselves appropriately,
- defending themselves realistically,
- engaging in reality testing and adaptive responses
- engaging in risk-taking behaviours in personal relationships, especially communicating affection and vulnerability.

Software Testing communication can be perceived as provocative by other roles involved in the software development process. Reading Frank Farrelly may give you ideas on how to harness that and use it deliberately so that you provoke when you want to, and avoid provocation when you don't

*Attitude, Honesty, Courage in our dealings with people*

## Future Learning

NLP is a TM'd commodity, as such it is a heavily packaged and well sold item. New books on NLP appear on a weekly basis and there are some very expensive courses that you can go on. Choose what to buy well and research the courses and books before committing to them.

Remember that the people who invented NLP did it by reading the books and papers of the practitioners that they wanted to study. They studied videos of those practitioners, build up models of their approaches and tried using those models and refined them until they worked. That avenue is still open to you. Self study and going back to the roots and sources of NLP is still a possibility.

## Training

If you are going to be trained in NLP then make sure that you study some NLP before you go for training. This way you will understand the broad scope of the subject and be familiar with some of the terminology.

And if you are going to be trained in NLP then find a course that has some of the original founders of NLP doing the training. This way you can avoid the Chinese whispers training effect – being trained by someone who was trained by someone who was trained by ... someone who created NLP.

Do some research to identify if you respond better to the Bandler approach to NLP or the Grinder approach to NLP and find a course to suit.

Training can be enormously beneficial in this area, NLP is a doing skill and training will give you the opportunity to put into practise some of the techniques that you have read about. I have invested in being trained in NLP, and if you are keen to learn then I recommend some training.

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