

Lying Eyes: The Truth about NLP Eye Patterns and Their Relationship with Academic Performance in Business and Management Studies (MBA)

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Abstract

This article looks at the relationship between eye patterns (i.e., how eyes move according to what the person is thinking or feeling) according to Neuro Linguistic Programming (NLP) and students' achievement in a course in an MBA program in Abu Dhabi University, United Arab Emirates. Participants for the study (N = 33) graduate students from the course. All participants were right-handed. Results show that, except for visual recall, less than half of the respondents exhibited the remaining eye patterns (i.e., visual construct, verbal recall, verbal construct, kinaesthetic and auditory digital), posited by the founders of NLP. Put in another way, respondents on average exhibited about two out of the six posited eye patterns. Correlations between eye patterns and exam results reveal that students who displayed eye patterns corresponding with verbal recall and kinaesthetic feelings, tend to do better in the exams. This paper discusses the possible benefit of training students to conform to verbal recall and kinaesthetic eye patterns, and teaching courses that emphasise on verbal recall and kinaesthetic feelings.

Keywords: Neuro Linguistic Programming (NLP), memory, business education, performance

1. Introduction

The study of business is booming. A simple search on Google will reveal that there are numerous Universities across the world offering MBA (Master of Business Administration) programs. MBA degrees have been perceived to enhance employability and career advancement (Mihail and Elefterie, 2006). Consequently, academic performances in such courses are extremely important. There are many studies that have shown that memory is positively related to academic performance (Aronen, Vuoritela, Steenari, Salmi and Carlson, 2005; Colon, Escorial, Shih and Privado, 2007; Alloway and Alloway, 2010). According to Neuro Linguistic Programming (NLP), people's eyes look at a certain direction when they are attempting to recall information from memory and/or when they are trying to imagine something new. Both are important in academic studies. However there are no studies that investigated the relationship between the NLP eye patterns and performance in academic studies. This study attempts to answer 2 research questions: Firstly, do people exhibit the eye patterns posited by NLP and secondly, whether eye patterns actually correlate with academic performance in exams in business and management studies.

2. Literature Review

2.1 What is NLP?

NLP is a way of organizing and understanding the structure of subjective experience and is concerned with the ways in which people process information (Einspruch & Forman, 1985). NLP evolved from a study of neurology, linguistics and patterns or programmes of behaviour (Thomson, Courtney & Dickson, 2002). NLP was developed in 1975 by Richard Bandler, a mathematician and John Grinder, a linguist. According to them, NLP is a powerful technology for engineering change (Bandler & Grinder, 1979; Grinder & Bandler, 1981). Bandler and Grinder developed skills of modelling which is basically identifying the specific sequence of thoughts and behaviour in one person and teaching that structure to another person (Dilts, Grinder, Bandler, Cameron-Bandler, & DeLozier, 1980). Using this, Bandler and Grinder were able to ferret out essential patterns used by Milton Erickson, Virginia Satir, Fritz Perls, and teach them to others. NLP is therefore often described

as a 'study of human excellence' and 'the difference that makes a difference' (Andreas & Faulkner, 1994).

NLP is eclectic, in that it draws from a wide range of sources. One can detect influences from Gestalt therapy (Perls, 1969), person-centred counselling (Rogers, 1961), transformational grammar (Grinder & Elgin, 1973), behavioural psychology and cybernetics (Ashby, 1965), the Palo Alto school of brief therapy (Watzlawick et al., 1967), Ericksonian hypnotherapy (Grinder & Bandler 1975), and, most importantly, the cybernetic epistemology of Gregory Bateson (Bateson, 1972). This eclecticism may have been caused by the belief of the originators of NLP- 'We have no idea about the "real" nature of things, and we're not particularly interested in what's "true". The function of modeling is to arrive at descriptions which are useful.' (Bandler & Grinder, 1979, p.7). So, NLP places more emphasis on developing practical observational and listening skills, acquired through practice and apprenticeship, than on generating theory. Bandler and Grinder were also extremely critical of the range of psychotherapies available in the USA which, as they perceived it, were rarely effective (i.e. in the sense of leading to change for individual clients), despite having a mass of intellectual frameworks. They strongly challenged the assumption that personal change necessarily involves long-term therapy (Tosey & Mathison, 2003).

2.2 NLP and Personal Representational Systems (PRS)

According to Grinder and Bandler (1976) people organize and process their experiences of the world using internal representational systems. Buckner, Meara, Reese, & Reese (1987) reported that there are four personal representational systems according to the world of NLP-visual (sight), auditory (sound), kinaesthetic (feelings or touch) and auditory digital (logical thought). Although all four representational systems are present in everyone, every person has a favourite or preferred representational system (PRS). A person with an auditory preferred representational system (PRS) would use phrases such as "sounds good" or loud and clear" more often than visual phrases such as "I see what you mean" and "looks good" or kinaesthetic phrases such as "feels right" and "I feel that ..." or auditory digital phrases like "logically" and "I think".

Bandler and Grinder (1975) have suggested that people do tend to have a most highly valued or preferred representational system (a primary representational system = PRS) in which they typically organize and represent the world and their experience of it, to themselves and to others. They claim that the processes of communication and understanding between persons can be fostered by identifying their PRS and by communicating using this mode (or by matching the predicates) (Lichtenberg & Moffitt, 1994). "There did seem to be some evidence to suggest that participants showed an increased factual and objective understanding of material when that material was presented using sensory predicates that matched their PRS" (Bandler & Grinder 1975, p. 546).

2.3 Eye Movements

The eye positions are hypothesised by Bandler and Grinder to correspond to sensory-information processing. A person who is accessing a mental picture from his/her memory (visual recall), he will be looking towards the top right (as seen by an observer). A person who is visualising an imagined or constructed image not from memory (e.g., a six legged cat) would look towards the top left. A person who is recalling a sound would look laterally towards the right (verbal recall) and a person who is imagining a new sound (e.g., the voice of mickey mouse singing an Asian song) would look laterally towards the left (verbal construct). A person who is remembering the feeling of touching a soft sheepskin rug (kinaesthetic), would look down and to the left, and a person who is recalling the capital city of China (auditory digital) would be looking to the bottom right. All these directions are stated not from the perspective of the respondent, but from the perspective of the observer who is looking directly opposite and facing the respondent. These eye directions are also meant for right-handed persons (Dilts 1983). For left handed persons, the eye patterns are laterally reversed (right becomes left and vice versa) according to James (2008). A diagram of the eye patterns would look like from the viewpoint of an observer looking directly opposite the respondent is shown in Figure 1 below.

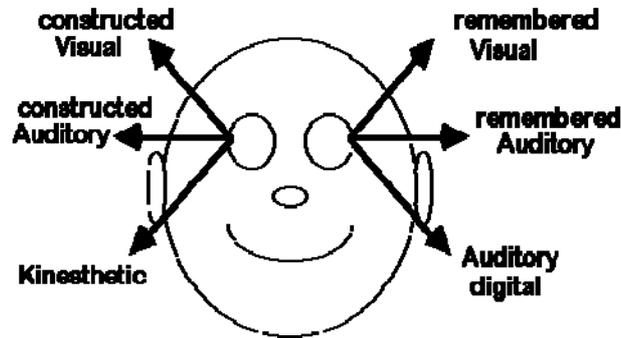


Figure 1. Eye patterns as seen by observer

2.4 Eye Movements and PRS

A number of previous studies (Beale, 1981; Dorn, Atwater, Jereb, & Russell, 1983; Ellickson, 1981; Falzett, 1981; Graunke & Roberts, 1985; Gumm, Walker & Day, 1982; Hernandez, 1981; Owens, 1978; Thomason, Arbuckle, & Cady, 1980) employed eye movements to determine PRS. According to Buckner et al (1987), there appear to be fundamental problems with such an approach. These studies used the untested NLP eye movement model to find PRS. Finding out a person's PRS by questionnaires or interviews are more accurate rather than by using eye movements (Buckner et.al., 1987). Furthermore, the eye movements model has not been validated. Rather, there are many studies that have been reported to invalidate the eye movement model (Buckner et. al., 1987).

2.5 Eye Movement Measurement

Many of the defenders of NLP have argued that although electroencephalographs record eye movements accurately, they do not give an accurate interpretation of the eye movements and what the test-subject is doing inside his or her head. Dilts (1983) tried using an electroencephalograph (EEG) to record electro-ocular activity with much difficulty. He concluded that eye electrodes were less satisfactory than videotape equipment for plotting eye movements. He also suggested that future studies exploring the NLP eye movement model should use videotaping (observation) to evaluate eye movements and use verbal self-reports of participants to get information about which sensory modality is being employed at a given moment.

2.6 Justification for More Research in NLP

Academic research into NLP is thin, with virtually no published investigation into how it is used in practice, apart from the study by Ahmad (2011). Previously, empirical research consists largely of laboratory-based studies from the 1980s and early 1990s (Baddeley & Predebon, 1991; Dorn, Brunson & Atwater, 1983; Poffel & Cross, 1985). These investigated two particular features of NLP, the 'eye movement' model (Bandler & Grinder, 1979), and the notion of the 'primary representational system', according to which individuals have a preferred sensory mode of internal imagery indicated by their linguistic predicates (Grinder & Bandler, 1976). Both models hypothesise correspondences between external behaviour and internal processing. Heap (1988) and Sharpley (1987) argue that these particular claims of NLP cannot be accepted based on the evidence. Until Ahmad (2011), there appears to be a belief among scholars that there is research evidence refuting NLP

Sharpley (1984) reports that the amount of published data supporting NLP as a viable model for therapeutic change is minimal. There have been many previous research (cited in Einspruch & Forman, 1985), that have attempted to debunk NLP, although these studies are rather dated. Einspruch and Forman (1985) also defended NLP and instead, attacked previous research stating that such 'failed' research used flawed methodologies such as using researchers who are not properly certified in NLP. As such, the aforementioned criticized research had experiments that resulted in the outcomes of the test groups not proven to be any different from that of the control groups. Einspruch and Forman (1985) revealed that all of the 39 empirical studies reviewed failed to provide adequate investigator training. Furthermore, as Einspruch and Forman (1985) pointed out, if comparisons are to be made with other treatment approaches, the therapists using any comparative model, should be equally proficient. NLP is a complex model requiring extensive training before a practitioner may legitimately undertake a study of this nature. One cannot simply attend one or two workshops, read a book and assume that he or she can effectively perform NLP therapy any more than this can be assumed for any other model of therapy (Einspruch & Forman, 1985). Einspruch and Forman (1985) pointed out that many previous

studies such as Appel (1983), Brockman (1981), Cody (1983), Ellickson (1983), Dorn (1983), Dowd and Pety (1982), Ehrmantraut (1983), Falzett (1981), Green (1981), Hammer (1983) and Paxton (1981) did not understand that NLP requires the cooperation and submission of the respondent.

It is worthwhile to point out that while Einspruch and Forman (1985) defended NLP, they themselves failed to conduct experiments to show the contrary. Ahmad (2011) looked at the effectiveness of the alternative techniques of Hypnosis, Neuro Linguistic Programming and Time Line Therapy as means of reducing the intensity of negative emotions attached to memories of stressful events. He conducted experimental research that involved 32 test subjects and 32 control group subjects. Statistical t-tests revealed that with the test group, there were significant reductions in intensity levels of negative emotions after undergoing the procedures compared with before, with all three methods. There were no significant changes in the control group. This is to-date, one of the most convincing research publications suggesting the effectiveness of one of the many techniques in NLP- the dissociative method.

3. Research Questions

Several research questions are addressed in this study. Firstly, are eye patterns as proposed by Bandler and Grinder, universally true throughout the globe, irrespective of culture? Secondly, if eye patterns do not hold universally, which eye patterns tend to be more universally true- visual, auditory, kinaesthetic or auditory digital? Thirdly, which eye patterns tend to correlate significantly with academic success in a business course?

3.1 The Sample

Participants for the study (N=33) were graduate students from the Master of Business Administration in Abu Dhabi University, United Arab Emirates. All respondents were students from the same class-the subject was Organizational Behaviour and taught by the author. It was felt that by limiting the respondents to only one class taught by the author, the author can be confident of controlling potential extraneous variables, such as the way in which the course was conducted, class size, duration, timing, environment, and level of difficulty of midterm and final exams.

All participants were right-handed. The students obtained two marks as a credit towards participation, and thirty three students out of thirty five participated in the experiment that lasted no more than five minutes. They were not told about the exact details of the experiment. All they were told was that it involved asking them questions, and that their facial expressions will be observed. It was felt that a disguised approach would be best in order for them not to be conscious of their own eye movements. Worst still it was feared that if told, the respondents would resist moving their eyes.

3.2 Instructions

Participants were asked to enter a small interview room one at a time and be seated directly in front of and about 3 feet (1 m) from the interviewer/author. This is sufficiently close to observe the eye movements accurately, but not too close as to be intrusive. Participants were then asked the following questions:

- 1) "Do you remember clearly the house you grew up in?" This question involves visual recall and the eye pattern should be towards the top right.
- 2) "Can you imagine what the house would look like if it was bright pink (or had more levels)" This question involves visual construct and the eye pattern should be towards the top left.
- 3) "Do you have a favourite song/music? Can you play that in your head?" This question involves verbal recall and the eye pattern should be towards the lateral right.
- 4) "Can you imagine what the song would sound like if it was played at twice the speed (or if the singer had a voice like Donald Duck)? This question involves verbalconstruct and the eye pattern should be towards the lateral left.
- 5) "Can you remember how it feels like to walk on soft sand/carpet?" This question involves kinaesthetic and the eye pattern should be bottom left.
- 6) "Can you say the times table?" This question involves auditory digital and the eye pattern should be bottomright.

4. Method of Measuring Eye Movements in NLP

For each of the above questions, with its corresponding eye movement, a variable was created. For each question, if the respondent's eye movement is the same as the proponents of NLP, then a score of one is given for that variable. If the respondent's eyes were to not move in that direction, then a zero score is given for that

variable. In other words, if the respondents' eyes were to remain stationary or not move in the direction posited by NLP, then a score of zero is awarded for that variable.

There is a disagreement among NLP theorists about how to interpret eye patterns, when the respondent exhibits multiple eye movements for a particular question. Dilts (1983) claims that a memory accessed through a visual Lead System (LS) that is also represented kinaesthetically will be indicated by an upward eye movement followed by an eye movement down and to the left for most right-handed people. Simply put, this could mean that if a person is primarily visual and he/she was asked to recall the feeling of rubbing his/her toes in a sheepskin rug, he/she will first access the image of the carpet (and perhaps the toes as well), and then access his/her feelings of rubbing his/her toes in it. When interpreting such eye movements, the author recorded that the respondent manages to access the kinaesthetic feelings and that the eye patterns conform accordingly, and a score of one will be recorded for that variable.

4.1 Variables Created

A variable called "Eye patterns total" was also created. This variable is comprised of the sum of all the scores for the variables of visual recall, visual construct, verbal recall, verbal construct, auditory digital and kinaesthetic. Another variable called "Total marks" was also created, comprising of the sum of the midterm and exam marks. Group assignments, which are the result of team effort rather than identifiable individual effort, were excluded in this study.

5. Results

It can be seen from Table 1 that except for visual recall, most of the respondents do not exhibit the eye patterns posited by NLP. For visual construct, half of the respondents exhibited the NLP patterns. For verbal construct, kinaesthetic and auditory digital, less than half the respondents exhibited the NLP patterns. The average score of the eye pattern total is 2.4 which means that on average, less than three of the six possible eye patterns can be found per person. It can be concluded, that the NLP eye patterns as posited by the founders, do not apply to this sample of students in Abu Dhabi.

Table 1. Frequencies

Question		Frequency conform to NLP eye patterns	Percentage conform	Frequency not conform	Percentage not conform
1	Visual recall	21	63.6	12	36.4
2	Visual construct	14	42.4	19	57.6
3	Verbal recall	14	42.4	19	57.6
4	Verbal construct	12	36.4	21	63.6
5	Kinaesthetic	12	36.4	21	63.6
6	Auditory digital	6	18.2	27	81.8

Tests of correlations were conducted between the NLP eye patterns and performance in the midterm tests, exams and the total of the two. It was found that of all the NLP patterns, only verbal recall and kinaesthetic are found to be significantly correlated with the midterm tests, exams and the total. As mentioned earlier, group assignments although graded were excluded from the analyses as they consisted of the joint effort of the group members, in contrast to the midterm and exams which were the result of individual work and relying on memory.

Table 2. Correlations

	1	2	3	4	5	6	7	8	9	10
1. Visual recall	1									
2. Visual construct	-.116	1								
3. Verbal recall	-.116	.008	1							
4. Verbal construct	.179	-.139	-.267	1						
5. Auditory Digital	.193	.072	.231	.460**	1					
6. Kinaesthetic	.048	-.012	.498**	.214	.460**	1				
7. Eye patterns total	.389*	.281	.455**	.458**	.758**	.726**	1			
8. Midterm	-.076	-.377*	.414*	.413*	.223	.469**	.348*	1		
9. Exam	.014	-.349*	.530**	.207	.085	.498**	.331	.709**	1	
10. Total marks	-.011	-.379*	.530**	.278	.129	.521**	.357*	.834**	.980**	1

* significant at 0.05 level; ** significant at 0.01 level.

There are significant positive correlations between verbal recall eye patterns and midterm (.414), exam (.530) and total marks (.530). There are also significant positive correlations and between kinaesthetic eye patterns and midterm (.469), exam (.498) and total marks (.521), all significant at the 0.01 level. There were significant negative correlations between visual construct eye patterns and midterm (-.377), exam (-.349) and total marks (-.379), all significant at the 0.05 level. There was no significant relationship between eye patterns total with midterm, exam and total marks.

6. Discussions

It was shown that less than half of the sample of respondents exhibited the eye patterns for visual construct, verbal recall, verbal construct, auditory digital and kinaesthetic. The results suggest that NLP eye patterns as posited by the founders of NLP, do not apply to the majority of this sample of students in the Emirates. The only eye patterns that had a majority of the sample conforming to the NLP school was visual recall, and that is only 63.6%. This does not give enough confidence to the followers of NLP regarding the proposition that global eye patterns exist. Having said that, there were some interesting findings of the study. There was a significant positive correlation between eye patterns for verbal recall and kinaesthetic on the one hand, with midterm, exam and total marks on the other i.e., students who displayed those eye patterns tend to do better than those who do not. Students in the United Arab Emirates could be taught how to improve their verbal recall and kinaesthetic abilities with the corresponding eye patterns.

Another interesting finding is the negative relationship between visual construct and performance in midterms and examinations. The negative relationship existed here (in contrast with the positive relationships involving verbal recall) probably because of the way in which the course was taught. Students were provided with powerpoint slides (visuals) and the instructor explained the material in most of the classes during the entire duration of the course. Many of the students admitted that they do not have time to study the text-book, but relied mostly on what was explained verbally in the class by the instructor. Visual construct also became a liability as the students remembered incorrectly, the material and diagrams contained in the powerpoint slides. In such subjects (organizational behaviour) where the recall of the correct terminology and the correct use and applications of theories were the emphasis, the ability to mentally manipulate visual images by students becomes a liability. The situation for architect or interior design students may be different, at least for the subjects where the students' ability to mentally manipulate images is the goal.

7. Limitations

The use of a trained observer highly sophisticated in NLP theory and highly experienced in rating eye movements might be seen as introducing undue bias. However, Dorn et al. (1983) indicated that differences among the skill levels of eye movement raters may have seriously affected the results of at least three previous studies in the NLP eye movement model (Thomason et al., 1980; Falzett, 1981; Dorn et al., 1983). The sole observer in the current study is the author who is a qualified trainer of NLP with seven years post-qualification experience. Although it does bring with it its own kind of limitation, we argue that the benefits (high validity),

outweighs the potential for bias. Furthermore, as evidence of impartiality of the researcher, the current study did in fact disclose that only 2 out of the 6 eye patters posited by NLP were supported.

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