

## **NLP and Psychological Research: Rapport, Reframing and Eye Accessing Cues**

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### **Abstract**

**Introduction:** *Neuro-linguistic programming (NLP) is a highly controversial topic with reviews ranging from uncritical appraisal to rejection. Scientific psychology mostly rejects it. But are some NLP concepts that much distant from psychological concepts?*

**Objectives:** *The objective of this article is to review whether additional empirical evidence for NLP can be found elsewhere than literature explicitly studying NLP, which still is rather rare.*

**Methods:** *The method is a scan of rather recent psychotherapeutical and neuroscientific literature that do not explicitly study or even mention NLP, using three NLP formats as examples: rapport, reframing and eye accessing cues.*

**Results:** *This review shows that: a) psychotherapeutical research on rapport supports NLP concepts of pacing and leading, b) a new concept in trauma therapy, redirect, has close links with reframing, and c) the highly controversial NLP format, eye accessing cues, shares analogues with modern neuroscience.*

**Conclusions:** *This study adds empirical evidence to NLP by linking studies otherwise not considered in the context of NLP to NLP. In addition, it shows that there are more links between NLP and parts of state-of-the-art psychology than one might be tempted or forced to think.*

**Keywords:** *Neuro-Linguistic Programming, Psychotherapy, Neuroscience, Empirical Evidence*

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## **Introduction**

Richard Bandler and John Grinder developed neuro-linguistic programming as an approach to communication, personal development, and psychotherapy. The bandwidth of its reception reaches from overly enthusiastic appraisal to complete rejection: f. e. Mohl (2006) describes NLP as “it is close to magic“ (p. 11), while Grawe, Donati, and Bernauer (1994), in a meta-analysis, claim it does not even fulfill the minimum criteria for a scientifically based form of therapy. While it is popular on the business market, f. e. in seminars, workshops on leadership training for businesses and even government agencies (Dowlen, 1996; von Bergen, Soper, Rosenthal, & Wilkonson, 1997), science asserts there is no scientific evidence supporting the claims by NLP on a psychological level (Thyer & Pignotti, 2015; Sharpley, 1987) and that NLP uses outdated neuroscientific principles inconsistent with current research (von Bergen, Soper, Rosenthal, & Wilkonson, 1997; Druckman & Swets, 1988). Sharpley (1987) reproaches that NLP proponents try to explain negative results by claiming that the researchers did not properly understand NLP while he states that studies conducted by researchers with sufficient knowledge of NLP still provide negative results. Thyer and Pignotti (2015) claim that more than 20 years later there were still no convincing empirical evidence on the efficacy of NLP. Is this really the case?

Let's take a closer look. Nowadays there are a number of studies providing scientific evidence for NLP, including scientific theses and psychotherapeutical studies (f. e. Genser-Medlitsch, 1997; Konkol, 2013; Reckert, 1993, 1998; Stripancic, Renner, Schütz, & Dond, 2010; Wake, Gray & Bourke, 2013; Weerth, 2013). But maybe there are even more than those studying explicitly NLP, if one reflects studies looking at psychotherapeutical concepts without mentioning NLP.

Bandler and Grinder borrowed from psychological and psychotherapeutical knowledge often without explicitly citing it, knowingly or not, on purpose or not (for a few examples see below). Here we reverse the situation and study whether scientific psychology borrowed from NLP – intentionally or unintentionally – or at least if both can be reconciled using three formats of NLP: rapport, reframing and eye accessing cues.

## **Rapport**

Rapport usually means a currently trustful relationship between two persons that builds on

mutually empathic attention. Maybe the first use of this word in the context of psychology was by Franz Anton Mesmer (Kleine, 1995). Sigmund Freud extended the use to the therapist-client relationship (f. e. Colman, 2009). The term is still used in modern day psychoanalysis and is defined as:

- the instantaneous correlation between therapist and patient, resulting in mutually increased attention and receptivity;
- the component of the hypnotic relationship providing the emotional prerequisites required for the courage and the motivation for intensive work within trance (Stumm & Pritz, 2007).

Bandler and Grinder (1976, 1979) borrowed the term from hypnosis and extended it (NLPedia, 2017). In hypnotherapy the term is specific for the therapist-client relationship. Within NLP the term is used for any positive relation: between two persons, between any number of persons/groups and within one person. Milton H. Erickson used to speak about a client losing the rapport to himself (NLPedia, 2017). According to Steinbach (1984) establishing rapport is one part of a classic interaction in NLP.

NLP gives relatively specific instructions how to achieve rapport – one major component is pacing the verbal (e. g., sensory predicates, use of keywords) and non-verbal behavior. Pacing mirrors the communication partner. It is based on the assumption that people who have a good understanding (a good rapport – the term exists even in everyday English!) adapt to each other (in body language such as volume, speech rate, even rate of breathing, intonation, distance, body posture and so on) (Bandler & Grinder, 1975, 1979). The next step is leading. The basic concept of leading is based on the work by Erickson (Erickson & Rossi, 1981). Through slight, step-by-step changes the therapist “leads” the client into another state. If rapport is established, the client will follow. Nowadays a conscious and intended adjustment to the value and belief system of the client is used in addition (Bagley & Reese, 1987; Dilts, 1988).

To summarize, Dilts (1990) provides a short and concise definition of rapport: “The establishment of trust, harmony, and cooperation in a relationship” (p. 219).

Psychotherapy recognizes the importance of a good relationship – a good rapport so to speak – between client and psychotherapist. It's called as simple as that: “It's the relationship that heals“. Sometimes this quote is attributed to Irwin Yalom, the father of group therapy, although Yalom himself attributed it to the father of humanistic and client-

centered therapy, Carl Rogers (Yalom, 1998). Yalom specifically mentioned that other aspects of therapy are all of secondary importance, such as the school the therapist belongs to, the actual content of the session, and the techniques used, f. e. free association, reconstructing childhood or psychodrama (Yalom, 1998). Gestalt and Adlerian therapists also place great value on actively cultivating a positive client-therapist which they characterize as visibly empathic, supportive and non-judgmental (Luborsky, O'Reilly-Landry and Arlow, 2011). To a certain degree the alliance between therapist and patient is seen as beneficial and central change agent (Luborsky, O'Reilly-Landry and Arlow, 2011). While in psychoanalysis the treatment relationship develops rather passively though the intensity of the treatment, psychodynamic psychotherapy actively encourages a strong alliance between client and therapist.

Modern day psychotherapy provides empirical evidence for the importance of the therapeutic relationship. One of the first large scale, maybe the first, meta-analysis including more than 2300 studies provides evidence that the quality of the therapeutic relationship is of central importance for the result of the therapy. This result was confirmed by other studies (f. e. Grawe & Caspar, 1994; Orlinsky, Rønnestad, & Willutzki, 2004; Schiepek, Eckert, & Kravanja, 2013; Strunk & Schiepek, 2014).

Despite the widely recognized importance, the description of the instruction is rather vague: acceptance and empathy are considered important, the therapist should be an authentic and transparent person (f. e. Reimer, Eckert & Hautzinger, 2008). Bordin (1979) established the concept of a "working alliance" which ideally is characterized by:

- a secure emotional bond between client and therapist;
- an agreement around the goals and tasks of therapy.

McLeod (2013) points out that this conceptualization has worked for more than 20 years for counseling and psychotherapy research. However, often no further description and definition is provided on how to achieve such a relationship, a secure emotional bond, how to show acceptance and empathy. A few things come to mind from everyday life (don't judge the person etc.) but given the importance of the "working alliance" many studies offer remarkable little advice on how/what to do in a "real life session".

Body language is not part of the classic concept, in contrast to NLP. In classic psychotherapy

the body language of the client, such as baseline behavior, affect, eye contact etc., is used to evaluate the state of the client (e. g., Foley & Gentile, 2010). Changes in these parameters from session to session allow the psychiatrist to gather important information about the patient, but do not include the psychotherapist's body language and its interaction with the body language of the client.

On the contrary, intentionally mirroring the client's language like NLP pacing is explicitly considered a disadvantage as it might lead to negative reactions (Dorn, Brunson, & Atwater, 1983). Studies in other areas refute that. If, f. e. an investigator in an experiment, intentionally imitates his subject, the interaction goes smoother and the subject likes him more (Chartrand et al, 2005). Interestingly, the subjects are not aware that the investigator is imitating him!

Regarding psychotherapy, only very few studies research pacing and leading during sessions. Using complicated video-analysis algorithms that allow an objective quantification of nonverbal synchrony, Ramseyer & Tschacher (2008; see also Ramseyer, 2010) showed that in a single case study:

- synchronization of body language is significantly often;
- synchronization is correlated with high quality of client-therapist relation;
- the patient is imitating the therapist more than vice versa (leading).

Using the same techniques and a randomized sample Ramseyer and Tschacher (2011) concluded:

- nonverbal synchronization is positively correlated with quality of client-therapist-relationship;
- using different measures, synchronization is correlated with positive outcome of the therapy for all of them;
- early during therapy pacing was more strongly correlated with positive outcome while later during therapy leading was more strongly correlated with positive outcome.

While this is perfectly comparable to what NLP teaches, there is one big caveat. On the one hand, Ramseyer and Tschacher (2010) explicitly use Bandler and Grinder's (1979) definition of pacing and leading. But Ramseyer and Tschacher also explicitly distance themselves from Bandler and Grinder by saying that these concepts – in contrast to Bandler and Grinder – are only meant in non-intentional sense, since Ramseyer and Tschacher don't assume conscious control over these processes (see discussion below).

## **Reframing**

Reframing is a term introduced to the broader public by Virginia Satir and also used by Milton Erickson, as well as within provocative therapy, the latter known through Frank Farrelly (Greve, 2013).

Rauh (1997) defines reframing as “reinterpretation. The art to give events and behavior a new frame, a new point of view. This leads to internal flexibility and mental freedom” (p. 112). Reframing means to aim at achieving change by shifting context or meaning (Bandler & Grinder, 1982; see also Maag, 1999; 2000); f. e., by looking for the positive connotation of a thought or behavior.

More specifically, it works on comparative generalizations (O’Connor, 2001). For example, “I’m too fat” - this might be of disadvantage in some context but of advantage in others: “it is wonderful to relax with you”. Changing the context changes the apparent disadvantage to a situation where this becomes an advantage.

Content or meaning reframing changes the perception for anything that you’d judge negatively: f. e. a boyfriend can either be seen as being rough – or as one who can take good care of you in dangerous situations (O’Connor, 2001).

Nowadays systemic therapy likes to claim reframing to itself (Schweitzer & von Schlippe, 2016). Nevertheless, NLP adapted to or borrowed from this concept and now it is deeply rooted in NLP practices. For reframing the link between common psychotherapy and NLP is relatively close:

- it shares core assumptions with some other brief therapy and systemic practices (Battino, 2002; Beyebach & Morejon, 1999), f. e. as solution focused brief therapy (O’Connell, 2005; Dryden, 2007);
- the influence of NLP on these practices has been acknowledged (Beyebach & Morejon, 1999; Pesut, 1991) for these reframing techniques (Maag, 1999; 2000);
- reframing of negative thoughts is also an important technique used in the now very popular cognitive behavioral therapy (CBT), called cognitive restructuring (f. e. Beck, 1997). The main procedure is to make patients aware of their negative thoughts and to turn them step by step into more positive thought patterns.

Thus the concept of reframing is not completely new to psychotherapy, but a new line of psychotherapy research comes even closer to NLP formats.

In this line of therapy, called “redirect” (Wilson, 2011), Pennebaker (2000) asked people to write about their personal history. It turns out that this type of dealing with your own autobiography leads to increased well-being and mental health. Adler (2012) interprets this as follows: by writing down their autobiography patients develop a new version of themselves and then they strive to fulfill the new concept of themselves with life.

There are a few major concepts within this “redirect”, the “story editing approach” (Roming, 2016; Wilson, 2011):

- the writing exercise: patients reinterpret a problem by writing about it;
- story prompting: patients are guided down a particular narrative path. This is supposed to “bump” them out of self-defeating thinking patterns.

There are several instructions on how to perform story editing (Wilson, 2011), which come close to NLP ideas:

- writing about things one is particularly worried or upset about (Pennebaker writing exercise);
- going back in time and watching the event unfold while distancing oneself from the negative experiences (Step-Back-and-Ask-Why approach). Imagining going back in time and reliving the event differently is also integrated in NLP (f. e. „change history“, NLPedia, 2017);
- imagine a positive future in your life (Best Possible Selves Exercise);
- reminding oneself of your most important goals and ways to get there (working with resources in NLP terms; Maintaining a Sense of Purpose);
- finding the positive aspect in all you do – even if it does not look so positive at first – reframe all that happens to you – your narrative will start to match (The Do Good, Be Good Principle).

Psychologists still tend to be skeptical about this re-writing of your own history, claiming it leads to distortions of periods of your life or even to sweet talking (putting lipstick on the pig – so to speak) (Huber, 2016). Reframing does not mean one has to find a positive re-interpretation at any costs. It simply means to be able and willing to scrutinizing interpretations and re-interpretations, thoughts and behavior (Rauh, 1997).

In contrast to the skepticism, there is some rather striking evidence for this story telling approach (Wilson, 2011). For example, police departments in the US use a program for people who have experienced traumatic events, the Critical Incident Stress Debriefing (CISD) (the same is also used in civilian contexts). From a rational point of view, CISD sounds rather promising: describing the event from one's own experience, expressing thoughts and feelings, relating psychological or physical symptoms, receiving stress management advice, being able to ask questions and to ask for additional services.

Empirical evidence, however, says different – not only is CISD ineffective, it may actually *cause* psychological problems (sic!). People who undergo CISD interventions are more anxious and depressed, have a significantly higher incidence of post-traumatic stress disorder and are less content with their lives (Wilson, 2011).

In contrast, in writing exercises people find it painful to express their feelings at first. But on the long run, they are better off than people even on a psychosomatic level (Pennebaker, 1997, 2004; Frattaroli, 2006).

In summary, psychotherapy and NLP have always been close regarding the concept of reframing. New lines of therapeutical work, redirect, are close to NLP concepts and, according to the evidence, seem to provide efficient, easy-to-implement, time-saving methods to help people.

### Eye Accessing Cues

The theory of eye movements (eye accessing cues) is one of the most famous formats within NLP –

some people even equate this format with NLP. It also is one of the most rejected formats, one that people are very hostile to and consider it scientifically disproven (Heap, 1989; Keller & Revenstorf, 1996; Thomason, Arbuckle, & Cady, 1980; Francesconi & Francesconi, 1984; Coe & Scharcoff, 1985).

One of the reasons for this degree of hostility might be that people often consider this theory a lie detector test – and disregard it then completely (for example, “The Eyes Don't Have It”; Wiseman, Watt, ten Brinke, Porter, Couper, & Rankin, 2012).

Bandler and Grinder (for example, 1979; Grinder, DeLozier and Bandler, 1977) identified, after many hours of observation of people from different cultures and people with different racial backgrounds, the following eye movement patterns, called eye accessing cues (Dilts, 2017):

Eyes Up and Left: Non-dominant hemisphere visualization - i.e., remembered imagery (Vr).

Eyes Up and Right: Dominant hemisphere visualization - i.e., constructed imagery and visual fantasy (Vc).

Eyes Lateral Left: Non-dominant hemisphere auditory processing - i.e., remembered sounds, words, and “tape loops” (Ar) and tonal discrimination.

Eyes Lateral Right: Dominant hemisphere auditory processing - i.e., constructed sounds and words (Ac).

Eyes Down and Left: Internal dialogue, or inner self-talk (Ad).

Eyes Down and Right: Feelings, both tactile and visceral (K) (Dilts, 2017, no page number) (see Figure 1)

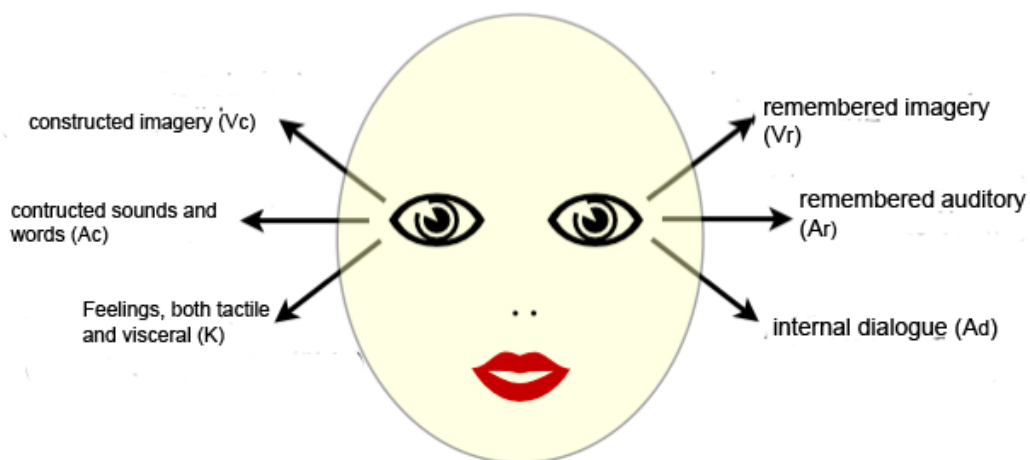


Figure 1: Eye accessing cues (from the viewer's perspective); modified from <https://commons.wikimedia.org/w/index.php?curid=35030952>

It is important to point out that this theory is not only based on their own observations by Bandler, Grinder, Dilts and colleagues, but in fact is based on other psychologists. This starts with one of the founding fathers of psychology, William James (sic!):

“In attending to either an idea or a sensation belonging to a particular sense-sphere, the movement is the adjustment of the sense-organ, felt as it occurs. I cannot think in visual terms, for example, without feeling a fluctuating play of pressures, convergences, divergences, and accommodations in my eyeballs... When I try to remember or reflect, the movements in question feel like a sort of withdrawal from the outer world. As far as I can detect, these feelings are due to an actual rolling outwards and upwards of the eyeballs.” (James, 1890, p. 193-195).

Probably James was the first to notice that. It is important to note that anecdotal reports tell that the influential hypnotherapist Milton Erickson discovered that the eyes move upwards when imagining something visual, look straightforward when focusing on hearing and they look downwards when we are feeling (Koneberg & Gramer-Rottler, 2010). It is not known whether Bandler and Grinder are aware about Erickson’s discovery, however, it seems likely as they “modeled” him.

On purely psychological grounds, nobody followed up James’s observations until the early 1970’s, when people started to get interested in hemispheric differences, that is, people conducted

studies on eye movements related to tasks involving one hemisphere or the other.

The result was that right-handed people had the tendency to:

- shift their eyes to the right during tasks involving primarily the left hemisphere (verbal and logical tasks);
- move the eyes to the left when solving artistic and spatially oriented tasks (Kinsbourne, 1972; Kocel, Galin, Ornstein & Merrin, 1972; and Galin & Ornstein, 1974).

In other words, eye shifted toward the opposite side than the one they were using. In the brain everything is represented on the opposite side than what is outside. So, moving the eyes to the left means concentrating with the right side of the brain. There are some very prominent differences between processing of the two hemisphere (see Figure 2), although some people point out that this concept is somewhat oversimplified (Springer & Deutsch, 1998), especially due to the high intersubjective variability (see also below). Despite some criticism, this distinction has become mostly textbook knowledge.

So the NLP concept is overall consistent with Erickson’s observation (upwards = visual, straight forward = hearing, downwards = feeling) and with psychological as well as neuroscientific evidence about processing in the left versus right brain.

If one considers the difference between visual, acoustic and kinesthetic processing and potential reasons for that, it is again important to look at it from a neuroscientific perspective (Figure 3).

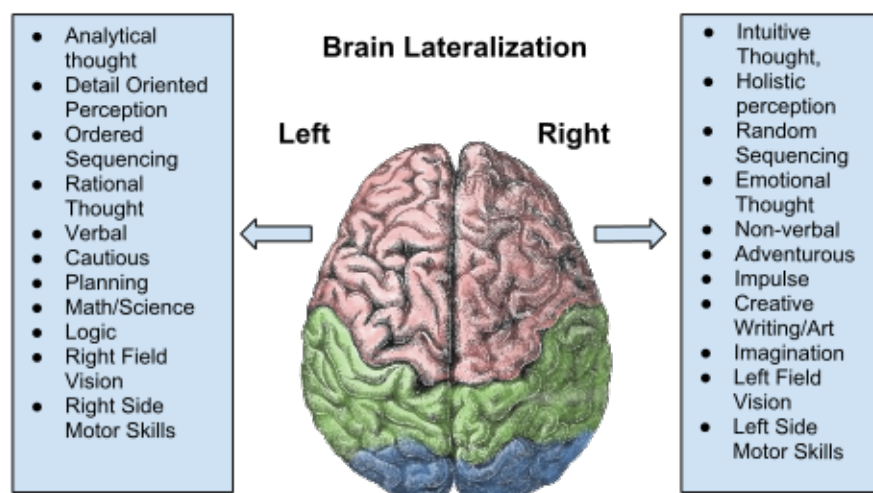


Figure 2: Differences between the two halves of the brain  
<https://commons.wikimedia.org/w/index.php?curid=26371690>



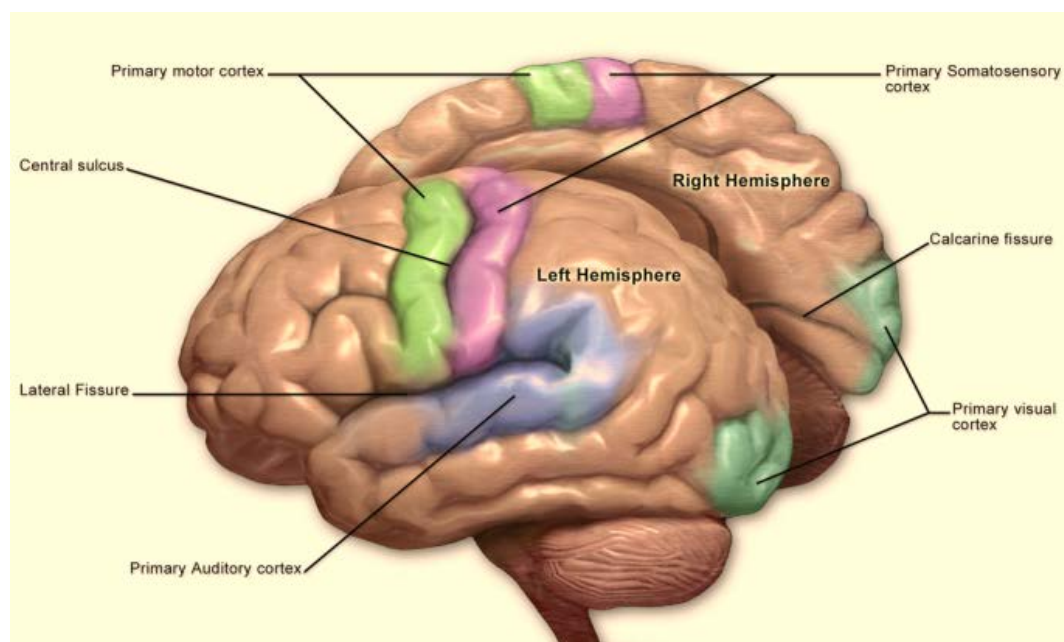


Figure 3: Sensory areas of the brain,  
<https://commons.wikimedia.org/w/index.php?curid=31574257>

There is a general trend in this visual picture: visual = downwards, auditory = roughly straightforward, somatosensory (kinesthetic) = upwards. Additionally: visual = back of the brain, auditory = middle of the brain, kinesthetic = slightly more forwards (with a bit of overlap). Keep in mind that for two trajectory of the brain, representations are distributed roughly as NLP claims it is!

However, there is some overlap between auditory and kinesthetic areas in a brain. The kinesthetic eye movements are a bit more complicated in the NLP concept, as well: there is a striking discrepancy between visual and auditory on one side and kinesthetic on the other. While the first two are symmetrical for the two hemispheres, the latter one is clearly asymmetric, bringing in auditory dialogues.

Confirming the claim by NLP that internal dialogue is right hemispheric seems a bit off. It already has become quite common knowledge that in most right-handed subjects language processing is located in the left hemisphere and that this tendency is more dominant in male subjects. This theory only describes a tendency, though. Language production is left-lateralized in up to 90% of right handers and more bilateral or even right-lateralized in about 50% of left handers (Beaumont, 2008). Prosodic language functions, f. e. accentuation and intonation, even often are right-lateralized (Ross & Monnot, 2008; George et al., 1996). Sex difference can be disregarded as the

evidence is not unambiguous. After initial support (Shaywitz, Shaywitz & Pugh, 1995) meta-analyses failed to replicate this result for different language lateralization in male and females (Sommer, Aleman, Somers, Boks & Kahn, 2008).

These specifics aside, the most commonly known language areas, Broca's and Wernicke's areas, are above-average located in the left hemisphere. A common assumption in neuroscience is that those areas that are active during performing a task are also active when imagining doing a task. From this would follow that internal dialogues are associated with left hemispheric activation. Early studies on internal articulation seemed to confirm that. Covertly generating words was left hemispheric activation (Friedman et al., 1998). One concern with this study is, however, that only a limited number of planes of the brain were scanned, so the study cannot be considered comprehensive (Winsler, Fernyhough & Montero, 2009).

An experimental weakness is that mere word generating should not be confounded with internal dialogues. When looking at more complex tasks Shergill et al. (2001) found not only left hemispheric activation, but also right hemispheric activation in "inner speech" tasks. Alderson-Day, Weis, McCarthy-Jones, Mesoeley, Smailes & Fernyhough (2016) found both left, but also right hemispheric activation when comparing 'dialogic inner speech' with single-speaker scenarios ('monologic inner speech'). If one focuses on

voice hallucinations, a couple of studies show activations of the right hemisphere. One has to point out that voice hallucinations are not to be confounded with internal dialogues. In dialogue therapy, a form of art therapy, the concept that dialogues stem from the right hemisphere or at least that the right hemisphere contributes is quite common (Hampe, Martius, Rtaschl, von Spreti & Stalder, 2009).

Fernyhough (2016) constitutes that hearing inner voices must lie beyond the standard language systems of the left hemisphere.

It has become obvious that when testing the NLP hypothesis of right-sidedness for internal dialogues the paradigm must be carefully selected to guarantee experimental validity (hallucinations, monologic, versus dialogic, self-directed etc.). There is even more to consider: there are certain aspects of language that are predominantly right-hemispheric, namely prosody. Prosody contributes to functions like intonation, tone, stress and rhythm, reflecting features like emotional state of the speaker, presences of irony or sarcasm, focus and other elements that are not directly encoded by grammar or literal meaning of vocabulary per se. Such prosodic language functions, f. e. accentuation and intonation, often are right-lateralized (Ross & Monnot, 2008; George et al., 1996). Since most of these are emotional, kinesthetic features, in NLP thinking it makes sense to locate them more frontal – and in the right hemisphere. The remaining question is whether they are more prominent in internal than in external dialogues.

For eye movements to the left (kinesthetic, including emotions), one of the best known researchers who focusses on the processing of emotions, Joseph LeDoux, does not explicitly focus on the lateralization of emotional processes (1996). Other researchers see emotional processes as much dominant in emotional expression as the left hemisphere is for language processing (f. e. Wikipedia, 2017).

However, there are some emotion related processes that are dominantly processed in the left hemisphere: the left hemisphere has less control over emotion than the right hemisphere – so the primitive, uncontrollable emotions are more strongly represented in the left hemisphere (Bach, Herdener, Grandjean, Sander, Seifritz & Strik, 2009). The left hemisphere is more important for preprocessing social emotions, while the right hemisphere is more important for processing primary emotions such as fear (Alfano & Cimino, 2008). Like for lateralization of speech processes, evidence points toward sex differences: in

women right hemisphere activation is larger when viewing unpleasant stimuli and left hemisphere activation is larger when viewing pleasant stimuli (Rodway, Wright, & Hardie, 2003). However, other studies find the opposite result (Gasbarri, Arnone, Pompili, Pacitti & Pacitti, 2007).

In summary, while the link between the eye accessing cues and neurophysiological representation is relatively straight forward for the visual and auditory channel as well as for hemispheric differences, the asymmetric eye accessing cues – internal auditory dialogues and kinesthetic – are less straightforward. Since neuroscientific are not unambiguous, further studies with clearly defined conditions (f. e. pleasant/unpleasant stimuli, type of internal auditory – f. e. single words versus more sophisticated dialogues) are needed to assess the hemispheric differences here. However, for all NLP eye accessing cues there is (some) evidence for analogues on the neuroscientific structure of the brain.

## **Discussion**

NLP has been rigorously dismissed by scientific psychology and psychotherapy and discredited as “pseudoscience” (Thyer & Pignotti, 2015; Sharpley, 1987). The results show that psychology is more interwoven with NLP than it claims to be. Not is some thinking of NLP strongly rooted in psychology, more precisely modern day psychotherapy and in part modern day neuroscience use the same or similar concepts without realizing or at least explicitly citing it.

## **Rapport**

Psychotherapy in general realizes the importance of the quality of a client-therapist relationship. The descriptions, however, range from “empathy” without specific instructions what to do in everyday sessions to rather cognitive concepts like an “agreement around the goals and tasks of therapy” (Bordin, 1979). Relatively recently, Ramseyer and Tschacher (2008, 2011) have analyzed body language and found data that can be interpreted as support for NLP claims.

Ramseyer and Tschacher distance themselves from NLP theory by claiming they consider pacing and leading a non-intentional, unconscious process. They consider imitation processes an eminently important role for social interaction. This starts basically at birth – during the first hours after birth newborns start imitating other persons (Meltzoff & Moore, 1977) – and keeps its importance during adulthood.



One reason why Ramseyer and Tschacher dissociate themselves so much from NLP might be that NLP is seen as manipulative. Rapport is indeed seen as manipulative – even by NLP founders themselves. Bandler and Grinder (1976/1979) justify this by saying that people automatically and unconsciously influence each other without controlling the impact – so a conscious, controlled manipulation would be better and useful (for discussions see Weerth, 1994). Still, the ethical controversy (Weerth, 1994) should not be disregarded, but cannot be discussed here.

Dilts (in Becker, 1989) points out that there is a contradiction in the criticism of NLP: on the one hand they say that NLP is ineffective and does not work – on the other hand they see NLP as dangerous as it works so well and is manipulative (sic!).

### **Reframing**

Reframing as way to interpret and reinterpret (traumatic) events, thoughts, memories and behavior is famous within NLP, but its traces can also be found in other therapy schools, f. e. systemic therapy (f. e. Schweitzer & von Schlippe, 2016).

A new line of research investigates writing down personal narratives, individual stories of one's life. Empirical evidence points toward the efficiency of this interpretation. Adler (2012) tries to explain this as developing a new version of oneself through the process of writing. Wilson (2011) writes "the writing exercise helps redirect people's interpretations of what happens to them in healthier ways than CISD [a common intervention] does" (p. 156).

One should also point out that this is a therapy that is relatively easy to implement and cost efficient. This line of thinking – for NLP and common psychotherapy – goes back to the social psychologist Kurt Lewin. He taught that in order to understand people we have to view the world through their eyes. But he also had a more radical insight – that we can change the way other people see a problem with relatively simple interventions (Wilson, 2011).

### **Eye Accessing Cues**

The theory about eye movements (eye accessing cues) is considered one of the hallmarks of NLP. Ironically, anecdotally witnesses report that Richard Bandler himself disregarded this theory in his later years. At a meeting in Santa Cruz, 1986, he informed a committee that this part of NLP was no longer considered important (Druckman & Swets, 1988).

This theory received a lot of "bashing" from psychology, although it is rooted in words by one of

the founding fathers of psychology, William James (see above). A lot of studies seem to have disproven this theory. When judging these falsifications a few things should be taken into account.

First, eye movements are easily distracted. For example, salient items automatically attract attention – typically leading to instinctive eye movements toward them – even when subjects are instructed to ignore them (and f. e. to focus on thought processes) (f. e. Itti & Koch, 2001).

Second, people are able to disentangle eye movements from their focus of attention – an ability that often is used in psychometric experiments to control where subjects are looking and to separate eye movements from attentional focus (f. e. Wilimzig, Tsuchiya, Fahle, Einhäuser, & Koch, 2008).

Third, the thought processes the subjects go through often are not known to the investigator. Take f. e. one of the test questions Dilts (2017) suggested: "How does your car's engine sound?" To answer that question a subject might have to first remember the image of the car (visual recall) before being able to remember its sound (auditory recall). So, a strict experimenter would only note that the eyes go to the visual channel first and note this as a failure of eye accessing cues.

Fourth and last, psychologists studying eye movements always noted and emphasized the high intersubjects' variability. Dilts (2017) acknowledges that due to their primary representational modality (PRM, another concept of NLP, meaning that many people have a favorite modality, visual, auditory or kinesthetic), people will have habitual eye movements favoring their favorite modality.

Nevertheless, in two axis of the brain, the structure of the brain provides maybe not "perfect" homologues, but at least have similarities to NLP ideas. Since these considerations are preliminary at best, further research is needed to validate these links.

In summary, in many aspects NLP and psychotherapy are not as much apart as hardliners from both side may think. Considerations from these three examples should encourage looking closer at other NLP formats as well.

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## References

- Adler, J. M. (2012). Living into the story. Agency and coherence in a longitudinal study of narrative identity development and mental health over the course of psychotherapy. *Journal of Personality and Social Psychology*, 102, 367 – 389.
- Alderson-Day, B., Weis, S., McCarthy-Jones, S., Moseley, P., Smailes, D., & Fernyhough, C. (2016). The brain's conversation with itself: neural substrates of dialogic inner speech. *Social Cognitive and Affective Neuroscience*, 11, 110 – 120.
- Alfano, K.M., and C.R. Cimino (2008). Alteration of expected hemispheric asymmetries: Valence and arousal effects in neuropsychological models of emotion. *Brain and Cognition*, 66, 213 – 220.
- Bach, D. R., Herdener, M., Grandjean, D. Sander, D., Seifritz, E., & Strik, W. K. (2009). Altered lateralization of emotional prosody processing in schizophrenia. *Schizophrenia Research*, 110, 180 – 187.
- Bagley, D.S. & Reese, E.J. (1987). *Beyond selling: How to maximize your personal influence*. Cupertino: Meta Publications.
- Bandler, R. & Grinder, J. (1975). *Patterns of the hypnotic techniques of Milton H. Erickson, Vol. 1*. Cupertino: Meta Publications.
- Bandler, R. & Grinder, J. (1979). *Frogs into princes*. Paderborn: Junfermann.
- Bandler, R. & Grinder, J. (1979). *Reframing*. Lafayette: Real people press.
- Battino, R. (2002). *Expectation: The Very Brief Therapy Book*. Norfolk: Crown House Publishing.
- Beaumont, J.G. (2008). *Introduction to Neuropsychology*. New York: Guilford Press.
- Beck, A (1997). The past and the future of cognitive therapy. *Journal of Psychotherapy Practice and Research*, 6, 276 – 284.
- Becker, V. (1989). *Die Primadonnen der Psychotherapie. Interviews mit berühmten Therapeuten* (The prima donna of psychotherapy. Interviews with famous therapists). Paderborn: Junfermann.
- Beyebach M. & Rodríguez Morejón, A. (1999). "Some thoughts on integration in solution-focused therapy". *Journal of Systemic Therapies*, 18, 24 – 42.
- Bordin, E. S. (1979). The generalizability of the psychoanalytic concept of working alliance. *Psychotherapy: Theory, Research, Practice*, 16, 252 – 260.
- Buckner, W., Reese, E. and Reese, R. (1987). Eye Movement As An Indicator of Sensory Components in Thought. *Journal of Counseling Psychology*, 34, 3.
- Chartrand, T. L., Maddux, W. M., & Lakin, J. L.. (2006). Beyond the perception-behavior link: The ubiquitous utility and motivational moderators of nonconscious mimicry. The New Unconscious, in F. J. Dorn, B. I. Cronson, & M. Atwater, *The new unconscious*, (p. 334 – 361). Oxford Scholarship Online.
- Coe, W. C. & Scharcoff, J. A. (1985). An empirical evaluation of the neurolinguistic programming model. *International Journal of Clinical and Experimental Hypnosis*, 33, 310 – 318.
- Colman, A. (2009). *Oxford Dictionary of Psychology*. New York: Oxford University Press.
- Dilts, R. (1983). *Roots of NLP*. Capitola, CA: Meta Publications.
- Dilts, R. (1988). *Belief systems outline*. Unpublished manuscript, o.O. Zitiert nach Weerth (2017), accessed online under <http://www.nlp-kritik.de/index.html> on 06/06/2017
- Dilts, R. (1990). *Changing belief systems with NLP*. Cupertino: Meta Publications.
- Dilts, R. (2017). *Eye movements and NLP*. Accessed online under <http://www.nlp.com/Articles/artic14.htm> on 04/12/2017.
- Dorn, F. J., Brunson, B. I., & Atwater, M. (1983). Assessment of primary representational systems with neurolinguistic programming: Examination of preliminary literature. *American Mental Health Counselors Association Journal*, 5, 161 – 168.
- Dowlen, A. (1996). NLP – help or hype? Investigating the uses of neuro-linguistic programming in management learning. *Career Development International*, 1, 27 – 34.
- Druckman, D. & Swets (Eds.) (1988). *Enhancing human performance – issues, theories, and techniques*. Washington: National Academy Press.
- Dryden, W. (2007). *Dryden's handbook of individual therapy*. London: Sage.
- Erickson, M.H. & Rossi, E.L. (1981). *Hypnotherapie: Aufbau, Beispiele, Forschungen* (Hypnotherapy: structure, examples, research). München: J. Pfeiffer.
- Fernyhough, C. (2016). *The Voices Within: The History and Science of How We Talk to Ourselves*. New York: Basic Books.
- Foley, G. N. & Gentile, J. P. (2010). Nonverbal communication in psychotherapy. *Psychiatry*, 7, 38 – 44.
- Francesconi, H. & Francesconi, M. (1984). Augenbewegungen und funktionale Spezialisierung der Zentralhemisphären bei Normalprobanden (Eye movements and functional specialisations of central hemispheres in normal subjects). *Zeitschrift für Klinische Psychologie*, 13, 111 – 123.
- Fratraro, J. (2006). Experimental disclosure and its moderators: A meta-analysis. *Psychological Bulletin*, 132, 823–865.
- Friedman, L., Kenny, J. T., Wise, A. L., Wu, D., Stuve, T. A., Miller, D. A., Jesberger, J. A. & Lewin, J. S. (1998). Brain activation during silent word generation evaluated with functional MRI. *Brain and Language*, 64, 231 – 256.
- Galin, D. and Ornstein, R. (1974). Individual Differences in Cognitive Style - Reflective Eye Movements. *Neuropsychologia*, 12, 376 – 397.
- Gasbarri, A., Arnone, B., Pompili, A., Pacitti, F., Pacitti, C., & Cahil, L. (2007). Sex-related hemispheric lateralization of electrical potentials evoked by arousing negative stimuli. *Brain Research*, 1138, 178 – 186.
- Genser-Medlitsch, M. (1997). *Neurolinguistisches Programmieren in der therapeutischen Praxis* (Neurolinguistic programming in therapeutical practice). Master thesis, University of Vienna, Vienna.
- George, M. S., Parekh, P. I., Rosinsky, N., Ketter, T. A., Kimbrell, T. A., Heilman, K. M., Herscovitch, P., & Post, R. M. (1996). "Understanding Emotional Prosody Activates Right Hemisphere Regions". *Archives of Neurology*, 53, 665 – 70.
- Grawe, K., & Caspar, F. (1994). Die Plananalyse als Konzept und Instrument für die Psychotherapieforschung (The plan analysis as concept and instrument for psychotherapeutical research). In: Baumann, U. (Hrsg.), *Psychotherapie: Makro-, Mikroperspektive* (S. 177ff). Göttingen: Hogrefe.
- Grawe, K., Donati, R. & Bernauer, F. (1994). *Psychotherapie im Wandel* (Psychotherapy in change). Göttingen: Hogrefe.
- Greve, N. (2013). Reframing. In W. Senf, M. Broda, & B. Wilms, *Techniken der Psychotherapie. Ein methodenübergreifendes Kompendium* (Techniques of psychotherapy. A compendium for all methods) (p. 101). Stuttgart: Georg Thieme.
- Grinder, J., DeLozier, J. and Bandler, R. (1977). *Patterns of the Hypnotic Techniques of Milton H. Erickson, M.D. Vol. II*. Capitola, CA: Meta Publications.

- Hampe, R., Martius, P., Ritschl, D., von Spreiti, F., & Stalder, P. B. (2009). *KunstReiz – Neurobiologische Aspekte künstlerischer Therapien* (Stimulus of art – neurobiological aspects of neurobiological therapies). Berlin: Frank & Timme GmbH Verlag für wissenschaftliche Literatur.
- Heap, M. (1989). *Neurolinguistic programming: What is the evidence?* In D. Waxman, D. Pedersen, I. Wilkie, & P. Mellett (Eds.), *Hypnosis, The Fourth European Congress at Oxford* (p. 118 – 124). London: Whurr Publishers.
- Huber, U. (2016). Introduction. *Psychologie heute*, 11, 3.
- Itti, L. & Koch, C. (2001). Computational modelling of visual attention. *Nature Reviews Neuroscience*, 2, 194 – 203.
- Keller, D. & Revenstorf, D. (1996). *Das Augenbewegungsmodell des NLP. Physiologische und kognitive Grundlagen. Hypnose und Kognition*, 13, p. 225 – 250.
- Kinsbourne, M. (1972). Eye and Head Turning Indicates Cerebral Lateralization. *Science*, 179, 539 – 54.
- Kocel, K., Galin, D., Ornstein, R. & Merrin, E. L. (1972). Lateral Eye Movement and Cognitive Mode. *Psychonomic Science*, 27, 223 – 224.
- Koneberg, L. & Gramer-Rottler, S. (2010). *Verkannte Genies: Wenn Kinder in der Schule scheitern: - Hilfen mit den 10 Schlüsseln der Evolutionspädagogik* (Misunderstood genius: when children fail in school – help with the ten keys of evolutionary pedagogics). München: Kösel-Verlag.
- Konkol, S. (2013). *Auswirkungen auf die aktuelle Befindlichkeit der angewandten Intervention New Behavior Generator aus dem Neurolinguistischen Programmieren im Vergleich zu einem Small Talk – Eine experimentelle Studie* (Effects of the intervention New Behavior Generator from Neuro-linguistic programming on current mood compared with small talk). Master Thesis, Universidad Central de Nicaragua UCN – UCN Branch Campus Berlin, International School of Psychology.
- LeDoux, J. (1996). *The emotional brain. The mysterious underpinning of emotional life*. New York: Simon and Schuster.
- Luborsky, E. B., O'Reilly-Landry, & Arlow, J. A. (2011). Psychoanalysis. In: R. J. Corsini & D. Wedding (Eds.), *Current psychotherapies* (p. 15 – 66). Belmont, CA: Brooks/Cole.
- Maag, J. W. (1999). Why say they say no: Foundational precises and techniques for managing resistance. *Focus on Exceptional Children*, 32, 1.
- Maag, J. W. (2000). "Managing resistance". *Intervention in School and Clinic*, 35, 3.
- McLeod, J. (2013). Qualitative research. In M. J. Lambert, Bergin and Garfield's *Handbook of psychotherapy and behavior change* (p. 50 – 84). Hoboken, NJ: John Wiley & Sons.
- Meltzoff, A. N. & Moore, M. K. (1977). Imitation of facial and manual gestures by human neonates. *Science*, 198, 75 – 78.
- Mohl, A. (2006). *Der Zauberlehrling. Das NLP Lern- und Übungsbuch* (The sorcerer's apprentice. The NLP's learning and workbook). Paderborn: Junfermann.
- NLPedia (2017). *Die NLP Enzyklopädie*. Accessed online under [http://nlpportal.org/nlpedia/wiki/Die\\_NLP\\_Enzyklopädie](http://nlpportal.org/nlpedia/wiki/Die_NLP_Enzyklopädie) on 08/28/2017.
- O'Connell, B. (2005). *Solution-focused therapy (Brief therapy series)*. London: Sage.
- O'Connor, J. (2001). *The NLP workbook. The practical guidebook to achieving the results you want*. London: HarperCollins Publishers.
- Orlinsky, D. E. & Howard, K. J. (1986). Process and outcome in psychotherapy. In S. L. Garfield & A. E. Bergin (Eds.), *Handbook of psychotherapy and behavior change* (p. 311 – 384). New York: Wiley.
- Orlinsky, D. E., Rønnestad, M. H., & Willutzki, U. (2004). Fifty years of psychotherapy process-outcome research: Continuity and change. In M. J. Lambert (Ed.), *Bergin and Garfield's handbook of psychotherapy and behavior change* (p. 307–390). Hoboken, NJ: Wiley.
- Pennebaker, J. (2000). Telling stories. The health benefit of narrative. *Literature and Medicine*, 19, 3 – 18.
- Pennebaker, J. W. (1997). *Opening up: The healing power of expressing emotions*. New York: Guilford.
- Pennebaker, J. W. (2004). *Writing to heal: A guided journal for recovering from trauma & emotional upheaval*. Oakland, CA: New Harbinger Publications.
- Pesut, D. J. (1991). "The art, science, and techniques of reframing in psychiatric mental health nursing". *Issues in Mental Health Nursing*, 12, 9 – 18.
- Ramseyer, F. (2010). Nonverbale Synchronisation in der Psychotherapie (Nonverbal synchronization in psychotherapy). *Systeme*, 24, 5 – 30.
- Ramseyer, F. & Tschacher, W. (2008). Synchrony in Dyadic Psychotherapy Sessions. In S. Vrobel, O. E. Rössler, & T. Marks-Tarlow (Eds.), *Simultaneity: Temporal Structures and Observer Perspectives* (E. 329 – 347). Singapore: World Scientific.
- Ramseyer, F. & Tschacher, W. (2010). Nonverbal synchrony or random coincidence? How to tell the difference. In A. Esposito, N. Campbell, C. Vogel, A. Nijholt, & A. Hussain (Eds.), *Development of multimodal interfaces: Active listening and synchrony* (p. 182 – 196). Springer: Berlin.
- Ramseyer, F. & Tschacher, W. (2011). Nonverbal synchrony in psychotherapy. *Journal of Consulting and Clinical Psychology*, 79, 284 – 95.
- Rauh, D. (1997). *Aufbruch zu neuen Zielen – Einführung in die Techniken des NLP* (Starting to new goals – Introduction to the techniques of NLP). Dortmund: Wenz & Antonin GmbH.
- Reckert, H.-W. (1993). *NLP-Anker-Kollabieren als Kurzzeitherapie von Studierenden mit Prüfungsangst - eine Therapievergleichsstudie mit mentalem Training* (NLP collapsing anchors as short term therapy for students with test anxiety – a comparative therapy study with mental training). A diploma thesis: University of Tübingen.
- Reckert, H.-W. (1998). *Die NLP-Phobiebehandlungstechniken in der Behandlung spezifischer und sozialer Phobien- eine Therapievergleichsstudie mit der systematischen Desensibilisierung in sensu* (NLP phobia treatment techniques in treating specific and social phobias – a comparative treatment study with systematic desensibilization in sensu). Dissertation, Universität Tübingen.
- Reimer, C., Eckert, J., Hautzinger, M., & Wilke, E. (2008). *Psychotherapie: Ein Lehrbuch für Ärzte und Psychologen* (Psychotherapy: A textbook for physicians and psychologists). Berlin: Springer.
- Rodway, P., Wright, L., & Hardie, S. (2007). The valence-specific laterality effect in free viewing conditions: The influence of sex, handedness, and response bias. *Brain and Cognition*, 53, 452 – 463.
- Roming, A. (2016). Sieh's doch mal so! (Look at it this way!). *Psychologie heute*, 19 – 23.

- Ross ED, Monnot M (January 2008). "Neurology of affective prosody and its functional-anatomic organization in right hemisphere". *Brain and Language*, 104, 51 – 74.
- Schiepek, G., Eckert, H., & Kravanja, B. (2013). *Grundlagen systemischer Therapie und Beratung* (Basics of systemic therapy and counseling). Göttingen: Hogrefe.
- Schweitzer, J. & von Schlippe, A. (2016). Es kann alles auch ganz anders sein. *Psychologie heute*, 11, 24 – 27.
- Sharpley, C F. (1987). Research findings on neurolinguistic programming: Nonsupportive data or an untestable theory?. *Journal of Counseling Psychology*. 34, 103 – 107.
- Shaywitz, B. A., Shaywitz, S. E., Pugh, K. R., Constable, R. T. Skudlarski, P., Fulbright, R. K., Bronen, R. A. Fletcher, J. M., Shankweiler, D. P., Katz, L., et al. (1995). Sex differences in the functional organization of the brain for language. *Nature*, 373, 607 – 609.
- Shergill, S. S., Bullmore, E. T., Brammer, M. J., Williams, S. C. R., Murray, R. M., & McGuire, P. K. (2001). A functional study of auditory verbal imagery. *Psychological Medicine*, 31, 241 – 253.
- Sommer, I. E., Aleman, A., Somers, M., Boks, M. P., & Kahn, R. S. (2008). Sex differences in handedness, asymmetry of the planum temporale and functional language lateralization. *Brain Research*, 1206, 76 – 88.
- Springer, S. P. & Deutsch, G. (1998). *Linkes/rechtes Gehirn* (Left/right brain). Heidelberg: Spektrum Akademischer Verlag.
- Steinbach, A. M. (1984). Neurolinguistic programming: a systematic approach to change. *Canadian Family Physician*, 30, 147 – 150.
- Stipancic, M., Renner, W., Schütz, P., & Dond, R. (2010). Effects of Neuro-Linguistic Psychotherapy on psychological difficulties and perceived quality of life. *Counselling and Psychotherapy Research*, 10, 39 – 49.
- Strunk, G., & Schiepek, G. (2014). *Therapeutisches Chaos* (Therapeutic chaos). Göttingen: Hogrefe
- Stumm, G. & Pritz, A. (2007). *Wörterbuch der Psychotherapie* (Dictionary of psychotherapy). Wien: Springer-Verlag.
- Thomason, T. C., Arbuckle, T. & Cady, D. (1980). *Test of the eye-movement hypothesis of neurolinguistic programming. Perceptual and Motor Skills*, 51, p. 230.
- Thyer, Bruce A. & Pignotti, Monica G. (2015). *Science and pseudoscience in social work practice*. New York: Springer Publishing Company.
- von Bergen, C. W., Soper, B., Rosenthal, G. T.; & Wilkinson, L. V. (1997). "Selected alternative training techniques in HRD". *Human Resource Development Quarterly*. 8(4): 281–294.
- Wake, L., Gray, R. & Bourke, F. S. (Hrsg.) (2013). *The Clinical Effectiveness of Neurolinguistic Programming*. Oxon: Routledge.
- Weerth, R. (1994). *Neurolinguistisches Programmieren (NLP) & Imagination: Grundannahmen, Methoden, Möglichkeiten und Grenzen*. Paderborn: Junfermann.
- Weerth, R. (2017). *NLP Grundlagen und Kritik (NLP basics and criticism)*. Accessed online under <http://www.nlp-kritik.de/index.html> on 08/27/2017.
- Wikipedia (2017). *Emotional lateralization*. Accessed under [https://en.wikipedia.org/wiki/Emotional\\_lateralization](https://en.wikipedia.org/wiki/Emotional_lateralization) on 08/23/17.
- Wilimzig, C., Tsuchiya, N., Fahle, M., Einhäuser, W., & Koch, C. (2008). Spatial attention increases performance but not subjective confidence in a discrimination task. *Journal of Vision*, 8, 1 – 10.
- Wilson, T. D. (2011). *Redirect. Changing the stories we live by*. New York: Brown and Company.
- Winsler, A., Fernyhough, C., & Montero, I. (Eds.) (2009). *Private speech, executive functioning, and the development of verbal self-regulation*. Cambridge: Cambridge University Press.
- Wiseman, R., Watt, C., ten Brinke, L., Porter, S., Couper S.-L., & Rankin, C. (2012). The Eyes Don't Have It: Lie Detection and Neuro-Linguistic Programming. *PLoS ONE*, 7, e40259.
- Yalom, I. D. (2003). *The Yalom-reader. Selections from the work of a master therapist and storyteller*. New York: Basic Books.