

Brainspotting, a New Brain-Based Psychotherapy Approach

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Abstract

Brainspotting (BSP) is a new psychotherapy approach that theorizes that the field of vision can be used to locate eye positions that correlate with relevance to inner neural and emotional experience. After they are located, these eye positions, or Brainspots, may through maintaining eye fixation, lead to a healing and resolution of issues that are held deeply in the non-verbal, non-cognitive areas of the neurophysiology. BSP utilizes both focused activation and focused mindfulness as its mechanisms of operation. It aims at a full, comprehensive discharge of activation held in the brain and body. BSP is a model that incorporates systemic activation and resources applied based on diagnostic and developmental considerations. The BSP model is developed as both relational as well as technical with philosophical and physiological underpinnings. It is an open, inclusive model that invites therapists to make use of their prior trainings and practice wisdom.

Background

Brainspotting (BSP) was discovered by David Grand Ph.D., the author of this article, in 2003. This paper will describe the discovery in detail as well as elaborate the ongoing development of BSP from a technical, clinical, neurobiological and philosophical point of view (Grand, 2009). BSP is a psychotherapeutic approach that uses the field of vision to locate “relevant eye positions” (or Brainspots) that are postulated to correlate to neurological stimulation and internal experience. In order to determine these eye positions, the client is guided to be in a state of “focused activation” which is usually in response to psychotrauma or emotional or somatic symptoms. This is assessed the by the SUDs (Subjective Units of Disturbance Scale) level of 0 to 10 (lowest to highest) followed by determining the location of the highest body activation (except when using the resource model) (Wolpe, 1969). At present there are six distinct methods (to be discussed in the body of this paper) for locating the eye positions. Once determined, the client is guided to uncritically observe their sequential internal process which includes affect, memory, cognition and especially body sensations. This self-observation is called “focused mindfulness” as it is parallel to meditation but is performed in a state of focused activation. At various junctures, determined by either the client or the therapist, a brief discussion ensues reviewing the nature of processing. This is followed by the therapist reorienting the client to their body experience as the unguided self-observation resumes. The process continues until the client arrives at a state of resolution, determined by returning their

original issue of activation with no SUDs activation present. This is reinforced by having the client “squeeze the lemon” by attempting to internally reactivate the SUDs level which is again processed down until it can no longer be reactivated. Based on the diagnosis, complexity of the condition and client capacity for processing, resolution may occur in anywhere from one session to many months or even years of treatment (Grand, 2009).

Discovery of Brainspotting

BSP was discovered by the author in 2003 while working with a 16 year old ice skater. She had been seen for a year of weekly 90 minute sessions to treat significant performance issues that possessed a dissociative quality. For example, in warm-ups before competition, she would either feel like she had forgotten her program or reported that she couldn't feel her legs. This resulted in performances far below par and an inability to compete at a national level correlating to her level of talent. During the year of treatment the author used his approach called “The Grand System” (Grand, 2001) which included aspects of EMDR (Eye Movement Desensitization and Reprocessing) (Shapiro, 2001), SE (Somatic Experiencing) (Levine, 1997), micromovements and relational insight-oriented therapy. Some factors of the skater's performance problems were a variety of traumas including maternal rejection, parental discord leading to divorce when the client was six, as well as a long history of sports injuries, failures and humiliations. The treatment had for the most part been successful with a few exceptions, including the inability to complete a triple loop. This jump is not the most difficult for championship caliber skaters such as my client, and her inability to perform it made a successful short and long program impossible. The client was guided to imagine doing the jump in slow motion and freezing it at the precise moment she felt and saw herself “going off”. She then was guided to follow the author's fingers moving slowly back and forth across her visual field. Within a few passes, just slightly off center, her eyes noticeably wobbled in a sustained microsaccade followed by locking into a frozen position (Martinez-Conde & Macknik, 2007). Startled by this response, the author reflexively stopped moving his fingers and immediately held them directly in front of the eye freeze, about three feet away from the client. During the subsequent ten minutes a remarkable torrent of processing ensued. A series of new traumatic memories emerged and rapidly processed through to resolution. But even more surprising was that a significant number of “resolved” traumas reopened and processed through to a deeper level. At the end of the ten minutes, the processing slowed and completed, and the eye lock released. This was an unusual event indeed but it was reinforced the next morning when the young skater called after practice. She excitedly reported repeatedly performing triple loops without a hitch. She never manifested a problem with the jump again. This caught the attention of the author and he began to look for similar eye manifestations in other clients while tracking slowly across their visual fields. When he observed them he repeated the procedure of holding

his finger dead center in front of where the anomaly occurred. He not only noticed an acceleration and deepening of the processes, but he was again startled by client reports. Comments like, “this is really different”, “this feels much deeper”, “I can feel it all the way in the back of my head”, and “I can really feel it in my body”, emerged from a wide spectrum of clients. Of particular note were the pronouncements of clients who were also therapists indicating that they observed a profoundly different experience and outcome from this new approach. Additionally, with instructions from the author as far as how to perform the technique, many of these therapists tried it out with their own clients and reported back similar experiences leading to faster and deeper resolutions. So in the course of a month, the author with his own observations and the feedback loop from his therapist clients, determined that he had stumbled onto a new method and perhaps a new paradigm.

Further Development of Brainspotting

Repeatedly applying this procedure during the following months, he noticed that by stopping the horizontal eye tracking at eye level in front of any reflexive response he elicited a similar deepening and acceleration of the process. These reflexes included blinking, quick in-breaths, coughing, hard swallowing, mouth movements, eye widening or narrowing, head tilting and change of facial expression, among others. The author found these new manifestations both curious and compelling as it made his already successful ability to help clients process through issues to resolution even more powerful and complete. He searched for a name for this process and arrived at Brainspotting with the recognition that these “spots” in the visual field appeared to accessing locations and functions in the brain. During the course of the subsequent six months, the author increasingly applied his new technique amassing evidence of its effectiveness with a wide variety of clients carrying different diagnoses, histories and symptoms. It appeared that the containment provided by the fixed eye gaze and the possible concomitant focused neurological activation were accomplishing a unique approach to emotional healing.

The author recognized the need to have an organized yet simple way of accomplishing focused activation, in the client, in order to initiate the optimal brain activity which is needed to accurately locate the relevant eye positions. So he developed a simple “set-up” process to bring this about. He started by asking the client if they were “activated” around the issue they wanted to work on. This was assessed by the SUDs (Subjective Units of Disturbance) level discussed earlier in this paper (Wolpe, 1969). If the activation was not high enough, the client was guided to “go inside and do whatever you need to do to push the activation level higher”. If it was high enough, the SUDS was simply rated with from zero (lowest) to ten (highest). The next step was to locate the area of activation in the body by observing “where you feel it the most”. After the focused activation was accomplished, the set-up was completed by locating the Brainspot in the client’s

visual field. Following the set-up, the client was guided into the focused mindfulness process which ultimately leads to the point of resolution of the issue of activation.

Outside and Inside Window Brainspotting

As the BSP process continued, the author closely observed and listened closely to client reactions and feedback. Of note was that a number of clients who were being observed for their reflexive responses gave feedback about eye positions that resonated with their internal felt sense. They guided the author to specific spots where they felt the activation the most with comments like, “you just passed it”, or “move the pointer over there”. This surprised him as he had not considered that Brainspots could be located by the client from their inner experience. This, accordingly, gave him two options for locating the relevant eye positions horizontally at eye level. He named the original locations determined by externally observing reflexes “Outside Window Brainspots” and called the locations determined by the client self-observed intensification “Inside Window Brainspots”. In order to locate these Inside Window eye positions, he asked clients whether they felt the most activation looking to their left, center or right at a pointer he tracked across their visual field. Once the general location was determined, he fine-tuned to find the most precise location of activation. But clients kept directing him not only left and right but also above and below eye level. This development led him to first search for Brainspots along the horizontal x axis followed by exploring up and down the y axis for the greatest perceived activation. This allowed for BSP to move from a one dimensional process to two dimensions.

Phenomenology

The author, prior to his discovery of BSP, had developed a modified version of EMDR which he had designated as “Natural Flow EMDR” (Grand, 2001). He incorporated much of this approach in the further development of BSP. The basic tenets of the Natural Flow approach included the “no assumptions model” or phenomenology (“observe everything, assume nothing”), body resourcing (borrowed from Somatic Experiencing) (Levine, 1997) and slower eye movements and gentler bilateral auditory stimulation (Grand, 2002). All of these methods were relevant to BSP and incorporated as such. The phenomenology came from his decades of clinical experience noting how the unexpected always arises in session, combined with the growing information about the infiniteness of the brain and accordingly how unknowable it is by outside observation. This clinical/philosophical approach entailed tracking, or following the client, uncritically and without expectation, wherever they went in their process. This was the recognition of necessity of not leading the client, with the recognition that following the process

reflects not only attending to the associative processes, but also following the neural activity. The author noted how many subtle assumptions were imbedded in most clinical models and how they became a part of the training and belief systems developed by so many therapists. In his trainings he often challenged therapists presenting analyses of client scenarios with, “how can you know this?”

Dual Attunement Model

BSP is seen as “Dual Attunement Model” similar to the “Interpersonal Neurobiology Model” (Siegel, 2010). This entails the simultaneous attunement of the relational model together with neurobiological attunement of the technical aspect of locating and harnessing Brainspots. It should be noted that the author had been a relationally based clinician for 27 years prior to the point of his discovery of BSP. His original training was in psychoanalysis and psychodynamic psychotherapy which developed his skills of attuned listening to the multileveled client communications. The analytic model was too structured for the author and he began to interact in a more open, flexible, accessible manner with his clients. This expanded out the reach of his attunement from the observational to the interactive. The attunement skills of a psychotherapist are deepened and widened over years and decades of practice and is considered by many both an art and a science. It is accordingly of interest that BSP was discovered and developed by a clinician of over three decades of experience. The determination of a Brainspot, described earlier as a relevant eye position, is very technical from a neurobiological point of view. In essence there appears to be nothing psychological about it. It is more a process of either where the therapist observes or the client experiences the activation the most. This can be seen as akin to a medical examination. From this vantage point the technical aspect of BSP is an attunement dramatically different from the relational attunement. BSP, in contrast to many other neurotechnical models, is conceptualized and taught from a clinical point of view. The therapy relationship is not intended to serve the BSP, the BSP is intended to serve and support the healing relationship. Yet there is neither a skew toward either the attunement power of the technical or the relational. The attention to the synthesis of the two, the dual attunement model, is the sine qua non of BSP and hence the source of its unique power.

Integrative Model

BSP is also unique, in the author’s opinion, as it is designed as an integrative model. Oftentimes clinical/technical approaches are taught discouraging anything less than a fidelity to the model. With other approaches integration is tolerated with an “it’s ok if you do it” attitude. With BSP integration is not only “allowed”, it is encouraged. This dovetails with how phenomenology is

applied to BSP with the recognition that the human system is too vast to be understood from the outside. Accordingly there can be no one model that encompasses this system. It, in fact, explains why so many models of the human mind have arisen and have efficacy. Any clinical approach can be used in concert with BSP or on a Brainspot. In fact, the complexity of response to BSP necessitates that a therapist be well versed in a variety of modalities to both understand and respond to the undefined or the unanticipated. The author has found that trainees of many different clinical backgrounds find a commonality in BSP reflecting its synthetic nature.

Neurophysiology

The mechanisms that underlie the BSP approach are either yet to be understood or are known in fields outside the purview of the author's knowledge base. It is known that the eye is an extension of the brain. It contains about 125 million light-sensitive nerve cells (photoreceptors) which generate electrical signals that allow the brain to see. There are both conscious and unconscious visual systems and each process along separate pathways in the brain. The unconscious system guides action and the conscious system recognizes objects (Carter, 2009). It is posited that with BSP, "where you look affects how you feel" and that different fixed eye positions correlate somehow to specific neural activity and internal experience. It also appears that by maintaining this eye gaze while in a state of focused activation around an issue, that the neural activity is more focused leading to a more economical processing and resolution of the internal neural and felt sense experience. The author believes, as many others do, that we are wired for healing (Badenoch, 2008). He also believes that this is driven by the survival instinct which is at the foundation of all animal and human experience. The author also believes that nothing is held in any part of the human system that does not affect all parts and the entirety of the system. This explains why BSP has been designed as a brain/body approach. BSP is also relational, understanding that the original attachment to the mother/caretaker is the foundation of the therapeutic relationship and underlies all psychophysiological development and healing.

The Resource Model of Brainspotting

The "Resource Model" is an essential aspect of BSP. It expands the application of BSP to the most wounded, dissociative clients who tend to be too overwhelmed to utilize the so-called "power therapies". Central to the BSP Resource Model is the "body resource". The use of the body resource in BSP is derived from the author's discussions with Peter Levine, developer of the Somatic Experiencing (SE) model (Levine, 1997). Levine challenged EMDR as too activating, particularly in its focus on body activation. Levine taught the author, as is done in SE trainings, to guide the clients to where they felt calmer and more grounded in their bodies.

Levine's "pendulation" model entails spending more time and attention in the body resource ("healing vortex") and much less time on the outer edges of the body activation ("trauma vortex"). In the Natural Flow approach, the author, at the conclusion of the EMDR protocol, guided the therapist to move from the body activation to the body resource and commence processing from there. This appeared to yield a less abreactive and more tolerable processing for fragile, highly traumatized, dissociative clients. In BSP, the author observed that the containment of the fixed gaze on the Brainspot was not always containing enough for these same clients who were so easily overwhelmed. By incorporating this body resource while on a Brainspot, he observed that many clients were able to better tolerate the emotional upheaval and body activation and process more effectively. He also realized the Brainspots could be determined not only by matching them to activation but located in concert to the body calm or groundedness which he called "Resource Spots". This was the beginning of the "Resource Model" of Brainspotting which has been vastly and intricately developed by Lisa Schwarz (Schwarz, 2010).

Bilateral Sound

Another aspect the author incorporated from Natural Flow into the BSP was the use of bilateral sound, delivered by his BioLateral Sound CDs. These CDs were engineered to move healing nature sounds and music slowly and gently from ear to ear. These CDs, used continuously, had been the primary mode of bilateral stimulation utilized by the author in his version of EMDR. He had discontinued use of them with the advent of BSP, feeling it to be unnecessary due to the power of his new paradigm. However, a number of clients requested to additionally listen to the sound while receiving BSP. To his surprise, the author discovered that with most clients the CDs enhanced and provided an "auditory resource" that deepened and supported the process. In response he guided the rest of his clients to listen to the sound during the BSP treatment. The sole exceptions were the hyperstimulated clients who found even the Resource Model (2010) to be challenging their capacity to remain grounded. It should be noted that doing BSP with the CDs is simultaneously accessing and activating the neuro-visual and neuro-auditory systems. The observed power of this dual sensory activation and its effect deserve further inquiry and study.

One Eye Brainspotting

As guided and developed by the author, BSP was and still is, an open, integrative, ever-evolving model. One of the first of these integrations was the use of "One Eye" Brainspotting. This borrowed from the work of Fredric Schiffer who determined that each hemisphere of the brain was like a separate personality (Schiffer, 1999). The access to the two sides of the brain

through the visual system is cross-hemispheric. Accordingly he developed goggles that restricted the vision in either eye so that light was only coming in from the extreme left or extreme right activating the opposite hemisphere of the brain. By switching periodically between the two goggles, Schiffer observed an integrative response leading to issue resolution. Prior to BSP the author had used the Schiffer model with interesting results together with bilateral eye movements and sound. He hypothesized that doing BSP on the more active eye would further focus the power of his method when needed. But he needed to develop modified goggles as the Schiffer version covered most of the visual field making Brainspotting impossible. In contrast, the BSP goggles were designed to obscure 50% of the visual field, either one eye or the other. To determine which eye held the higher level of activation he asked his clients to alternately cover each eye to assess the SUDs level for the open eye. The eye with the higher level SUDs was called the “activation eye” with the lower SUDs eye called “the resource eye”. Once the activation eye was determined, the appropriate goggles were put on with the activation eye exposed. Inside Window BSP was used to find the point of greatest activation on the activation eye. The One Eye approach was used when either the client manifested slow processing, or for vague emotional conditions like generalized anxiety disorder or chronic depression or for physical conditions like chronic fatigue syndrome or fibromyalgia. The author originally assumed that when the SUDs level was processed down to a zero that the process was completed. But he realized he might be missing something and began checking the resource eye after the zero SUDs was attained on the activation eye. He observed that in most cases additional activation was present and that a new Brainspot needed to be determined on this secondary eye. At times the SUDs level flared up on this “resource eye” to a 7, 8 or 9 and took considerable time to process down to a zero.

Squeezing the Lemon

Another observation made by the author was that a zero SUDs level was not a true zero. He developed a procedure he called “squeezing the lemon” where the client was guided, after a zero was attained, to “go inside and do whatever you need to” in order to reactivate the SUDs level. This was followed up by continuing to process, on the original Brainspot, back down to zero. This was repeated until no activation could be generated. This squeezing the lemon process revealed that more unprocessed material remained despite the attainment of the original zero. This deepening squeezing the lemon technique also appeared to reduce the occasions where the effect of the process wore off for the client days after the session leading to the return of the activation.

The author has thus far articulated three ways of locating Brainspots including Outside Window, Inside Window and through One-Eye BSP. The remaining three that will be discussed are

Rolling BSP, Z axis BSP and Gazespotting. They will be discussed in the order they were discovered and developed.

Rolling Brainspotting

Rolling BSP is a versatile way of utilizing Outside Window Brainspots. It is performed in a similar manner to how Outside Window Brainspots are initially located and mapped. This constitutes slowly tracking horizontally across the client's visual field, stopping at each location where a reflex expresses itself. In Outside Window this procedure is used to determine one spot where the eyes will remain fixated through the entire process until all activation is discharged. In Rolling BSP the movement from Brainspot to Brainspot continues for the entire process until discharge has been accomplished. The amount of time paused on each reflex spot can vary between a few minutes to a momentary pause. This is determined by client response and intent of purpose in using this technique. It is posited that by using Rolling BSP the flow of movement from Brainspot to Brainspot will be more active, integrative and comprehensive. Additionally, some clients appear to respond better to Rolling BSP while others simply prefer it. Although individual application varies from therapist to therapist with client to client, the traditional model of Rolling Brainspotting entails initially spending more time on each spot (one to five minutes) and gradually decreasing the amount of time as the process continues.

The theory is that early in the process greater depth of processing is the goal and that as it continues increased movement becomes the goal. Following the dual attunement model, nothing is preordained and the therapist's role is to track the client process and respond according to the client's response to the movement from spot to spot and the therapist's other interactions with the client. Rolling BSP can also be used as a method of completing the more static versions of BSP. It at times reveals an eye position that is still holding some measure of undischarged material that can be more fully processed through. At other times Rolling BSP serves as an integration and deepening of the completed process attained on another Brainspot.

Z Axis Brainspotting

Z axis BSP brings the third dimension of depth into the location of eye positions. Inside Window first explores the horizontal or x axis followed by the vertical or y axis looking for the highest level of activation or resource. But the exploration of the differentiated close and far remains to be probed on the Brainspot after it has been located. It has been observed that most clients will have greater or lesser activation either looking at the pointer about four to six feet from their

eyes versus looking through the pointer to the back wall which can be any distance further than the pointer. Oftentimes the spot further away on the z axis appears to have a lower activation than looking more closely at the pointer. Perhaps the perception of an object further away feeling less activating is based on the hard-wired experience that the further away from the danger the better. Even more speculative is that when further away on the spot feels more activating, that the client may possess elevated attachment issues that trigger the perception that the caretaker is more out of reach. Either way, z axis BSP is a way to split the difference of perception between close and far directly on eye positions that have been determined to hold the highest or lowest level of activation for the client. The quality, depth and intensity have been observed to be different between close and far and higher and lower levels of activation. BSP trainees are instructed to start the processing at the depth location of lower activation.

For example if a client is processing a motor vehicle accident, looking at an Inside Window Brainspot on the pointer may be a SUDs of eight, while looking through the pointer to the back wall might be a four. It has been observed that processing five to ten minutes on the lower SUDs distance often results in faster movement. It has been further observed that when subsequently shifting back to the higher SUDs distance, the SUDs has usually dropped and processing continues with greater flow. Going back to the MVA example, after working on the far spot which started at a SUDs of four, when moving back to the close spot, the SUDs may have dropped from an eight to a five or six. This tends to lead to a more active processing than if the closer spot had been focused on initially. Next, following the processing on the close spot for five to ten minutes often leads to a further diminution of the SUDs. At this point shifting back out on the z axis to the far spot often reveals that the activation is reducing and more fluid movement occurs. This back and forth processing continues until both distances have reached a full discharge and a resolution of the original issue.

The choice of Z Axis BSP, or for that matter any of the six modes of BSP, are determined by experimentation and therapist experience. It has been repeatedly observed that some clients who were responding incrementally to Inside Window had a noticeable increase in affective processing when the z axis was incorporated. In his practice, the author observed some clients, often times those with dissociation, made breakthroughs with z axis that were startling and not attained with any other form of BSP.

Gazespotting

The sixth type of BSP is Gazespotting. This approach makes use of our natural tendency to gaze at certain points in our visual field when talking about emotionally loaded issues. When observed, it appears like a client is actually talking to the spot with no awareness of their

behavior. The author, after five years of doing BSP, consciously noticed this phenomenon and wondered what would happen if clients continued to fixate on these spots while observing their inner processing. He observed a response that was both naturalistic and unique. Although it was generally less activating than Inside and Outside Window, it was nonetheless powerful and deep. This new method was designated as Gazespotting and became institutionalized as the sixth way of locating relevant eye positions. It was the only form of BSP where a client chooses their own spot intuitively and unconsciously. It tends to be more gentle and resourced than the more activating spots, with occasional exceptions. Gazespotting is also a good introduction to new BSP clients as there is no use of the pointer and the set up process that can seem odd until the client experiences the powerful effect of BSP.

The Future of Brainspotting

In looking ahead, BSP is an open, rapidly evolving model. By the time this article is published some new applications may already be in development. The human system is so infinitely vast and complex that attuning to its expressions lead to new discoveries and perspectives all the time. As BSP is in its seventh year, it is still in its infancy and is expected to mature and take its place with the many other validated treatment methods. Although most of what has been presented in this article has been discovered or developed by the author, BSP is being increasingly contributed to by many of the 2,500 therapists trained internationally to date. As this article is being written, a variety of research projects are being planned and embarked upon. These include a research study that cross-compares the efficacy of BSP against other therapeutic methods, an fMRI study and pupillography observational research. Ongoing extensive research is important not only to understand and validate BSP, but in the author's opinion to further understand the interactive mechanisms of the eye and the brain. In conclusion, the strength of BSP is seen in the dual attunement model which integrates the relational practice wisdom of the ages with the current and future understanding of the brain and its genius for self-observation and self-healing.

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