ABSTRACT
Approximately 40% of the general population suffers from an insecure attachment style from infancy. These individuals are disproportionately represented in the psychotherapy population. Seen as a scalar phenomenon, the presentation of insecure attachment can range from an occult co-morbidity of anxiety and depression to disabling personality disorders, intractable relational dysfunction, and self-harm. The associated symptoms of depersonalization, psychic numbing, and affect dysregulation present serious clinical challenges for which specialized interweaves may be necessary. The proposed interweave offers additional dyadic resourcing to facilitate resolution of attachment trauma. The literature on attachment and social engagement in mammals is replete with evidence of the salience of eye-gazing between parents and children, as well as between adults. The I-Gaze protocol involves an interweave in which the therapist sits knee-to-knee with the client and gazes into one of the client's eyes throughout phase four, utilizing bilateral tapping as the dual attention stimulus. It is proposed that this recapitulation the original parent-infant attachment paradigm can enhance dyadic resourcing and install a profound felt-sense of earned secure attachment within the intersubjective realm of the therapeutic relationship (Dworkin, 2005).

LITERATURE REVIEW

In their analysis of over 10,000 Adult Attachment Interview studies of mothers in the general population, Bakermans-Kranenburg & Van IJzendoorn (2009) determined that the normal distribution of attachment styles is as follows: 58% securely attached, 23% dismissive, 19% preoccupied, and 18% unresolved. Fully 42% of the general population therefore have an insecure attachment style. Given the disproportionately high incidence of psychopathology in this group (Mickelson, Kessler, & Shaver, 1997), including personality disorders (Meyer, Pilkonis, Proietti, Heape, & Egan, 2001) and posttraumatic stress and dissociation (Sandberg, 2010), it is reasonable to expect their disproportionate representation as psychotherapy clientele.

Shapiro's (2001) Adaptive Information Processing model characterizes attachment traumas amounting to an insecure attachment style as maladaptively stored (or linked) memory networks that can be successfully reprocessed with EMDR therapy. Siegel describes EMDR therapy's efficacy from the perspective of interpersonal neurobiology, explaining that the protocol contributes “...to the simultaneous activation of previously disconnected elements of neural, mental, and interpersonal processes...” which “...primes the system to achieve new levels of integration” (2007; p. xvii). Similarly, Schore (2012) emphasizes the primacy of implicit, right brain-to-right brain affective communication and interpersonal regulation in therapy, which is also common to parent-child secure attachment experience.

Integrating old mental representations (e.g., insecure internal working models, or IWMs) with present-day experiences of safe attachment (e.g., in the therapy relationship) is a generally agreed upon condition for healing attachment trauma (Sandberg, 2010; Riggs, 2010; Fosha, 2000). IWMs reflect
one's worthiness of care and protection, and serve up corresponding predictions of the attachment figure's willingness and ability to offer care and protection (Solomon & George, 1999). Riggs explains that “IWMs function largely out of awareness, and therefore are resistant to change unless a conflict between the model and reality becomes extremely apparent” (2010, p.37). Repeated encounters with a secure therapist in which the IWMs are contradicted can “provide opportunities for integrating dissociated mental models and fundamentally changing attachment patterns (Riggs, 2010, p. 37).

As Fosha (2000) points out, the care and attunement offered by the therapist is necessary but not sufficient: it must be received by the client for therapy to be effective. Therapy is a two-way street in which therapist and client create an *interpersonal neurobiology* of right brain-to-right brain experience, thereby inducing development and integration of the client's right brain implicit self (Schore, 2012; Siegel, 2007). The client must *feel* genuine care from the therapist—simply *knowing* it is not enough—and learn to tolerate, then eventually accept feeling cared about as safe and deserved. The resulting *earned-secure attachment* (Roisman, Padrón, Sroufe, & Egeland, 2002) with the therapist can usher in a transformation in the client's relationship with herself that involves greater self-acceptance, greater affect tolerance, and improved ability to function in close relationship.

However, meeting the conditions for earned-security is inherently fraught, particularly in the instance of unresolved (or disorganized) attachment. Such individuals suffer the cruel paradox of both needing to be witnessed by a caring and attuned other and at the same time fearing that very experience (Lamagna & Gleiser, 2007, Dalenberg, 2000). For many insecurely attached individuals, the compassion and closeness of the therapeutic relationship activates the client's attachment system which can trigger shame for depending on the therapist, fear of overwhelming the therapist by being too needy, disgust at being “seen” as defective, and fear of rejection and abandonment (Blizard, 2003; Howell, 2005; Lamagne & Gleiser, 2007). These clients may experience themselves simultaneously as both “too much” (for anyone to be able to comfort or tolerate) and “not enough” (i.e., unworthy of care).

The process of working through these difficulties in phases 1–3 of EMDR therapy are beyond the scope of this paper and have been described elsewhere (e.g., Parnell, 2013). There is a nascent literature on the use of EMDR in the treatment of attachment trauma, limited to theoretical treatises and case studies (Wesselmann & Potter, 2009; Wesselmann, Davidson, Armstrong, Schweitzer, Bruckner, & Potter, 2012; Brown & Shapiro, 2006; Knipe, 2009). The focus here is on adapting phase 4 (desensitization) to the unique challenges of insecure attachment by utilizing a unique interweave designed to intensify the right brain-to-right brain communication prerequisite to facilitate earned security (Schore, 2015). The interweave involves direct eye-gazing between therapist and client while bilateral stimulation is administered (e.g., with tapping).

**The I—Gaze Interweave**

Human infants demonstrate an intense interest in eye-gazing by the 4th week of life, exhibiting among the earliest intentional behaviors from birth (Robson, 1967). Eye-gazing between mother and infant is a fundamental attribute of forming an attachment bond (Dickstein, Thompson, Estes, Malkin & Lamb, 1984). Infant eye-gaze triggers nurturing responses in the caregiver (Cozolino, 2014) by stimulating oxytocin production (Kim, Fonagy, Koos, Dorsett & Strathearn, 2014). Maternal nurturing, in turn, stimulates oxytocin production in the infant, thereby creating a positive feedback loop that enhances social reward (Dšlen, Darvishzadeh, Huang & Malenka, 2013), inhibits stress activity of the HPA axis (Neumann, 2002), and may improve dyadic interaction (Nagasawa, Okabe, Mogi & Kikusui, 2015;
Rilling & Young, 2014). While the affiliative effects of oxytocin have long been demonstrated in non-human social mammals (Nagasawa, Mitsui, En, Ohtani, Ohta, Sakuma, Onaka, Mogi, & Kikusui, 2012), it has also been shown in human couples interactions in which the administration of intranasal oxytocin reduced cortisol levels and increased cooperation in conflicting couples (Ditzen, Schaer, Gabriel, Bodenmann, Ehlert & Heinrichs, 2009).

Mutual eye gaze can communicate aggression, romantic attraction, friendliness (Argyle & Cook, 1976) and respect or deference (Cozolino, 2014). Mutual eye-gaze facilitates social cognition: the affective and cognitive attribution process (i.e., theory of mind) that guides social interaction (Baron-Cohen, 1994, 1995). Eye-gazing may be one of the earliest evolutionary components of theory of mind, a neurological process that activates the amygdala, anterior cingulate, and insula—a social-emotional network that may be involved in the experience of self (Cozolino, 2014).

The therapeutic relationship has been described as an attachment relationship in which the client's internal working model—openness to receive care and acceptance, expectations about the therapist's emotional availability, safety, etc.—are activated and recapitulated (Bowlby, 1988; Dworkin, 2005; Cozolino, 2014; Schore, 2012). Earned secure attachment reflects attunement between the right-lateralized, implicit working models of both therapist and client. Non-conscious decoding of the client's non-verbal communication (e.g., eye-gaze, facial expression, prosody) leads to genuine empathy in the therapist (Schore, 2003) and activates an implicit affect regulatory system in the client (Porges, 2009; Greenberg, 2007).

The I-Gaze interweave described here is an intervention designed to intensify this implicit communication by directly activating the client's attachment system through eye-gaze. By its implicit nature, this intervention is an inherently intersubjective (Dworkin, 2005), right brain-right brain experience. By eliminating the “noise” of more conventional interaction (i.e., stay out of the way), the client's visual input is narrowed to the analogue output of the therapist's eye-gaze communication. Moreover, the client's normal strategies of regulating the relationship through social posturing is bypassed, leaving the client vulnerable to be seen unmasked. Such naked, or innocent vulnerability is a recapitulation of the early attachment bond which can stimulate oxytocin-mediated affect regulation while providing “new” information during the client's maladaptively encoded, implicit working model of attachment.

The empathy generated organically by the method's intense right-hemisphere dominated communication constitutes “new,” real-time information to the client. This contradicts the client's “old” information: rejection, dismissal, or contempt—residing in implicit autobiographical memory. Thus, the dual attention aspect of the adaptive information model is conserved. Bilateral stimulation is administered by tapping, the butterfly hug (Artigas, Jarero, Alcalá, & López Cano, 2009) or bilateral tones. When the client actually “sees” and can receive the care and acceptance from the therapist, the mismatch between implicit expectation and actual sensation/perception creates a prediction error. Prediction error creates a window of memory lability in which the dysfunctionally stored memory can be updated (Carpenter, 2015; Ecker, Ticic & Hulley, 2012).
PROCEDURE

Preparation

The I–Gaze interweave is an intersubjective, or relational intervention (Dworkin, 2005) that is predicated on the therapist having an available earned secure attachment internal working model at the ready. It is not a protocol that relies on technique alone. Failure to engage deeply in a felt-sense of acceptance and warmth could be counter-therapeutic, and therapists are advised to know themselves well enough to avoid this error.

The presumption of this interweave is that therapy has progressed through phases one through three and that additional resources are needed in phase four. Because this interweave may constitute a substantial change in the therapeutic frame (e.g., from eye movements to tapping, sitting closer to the client, mutual eye-gaze), care must be taken to prepare the client for these changes by furnishing some explanation, assessing for safety and tolerance of the proximity and the eye-gaze. Clients should be advised that mutual eye-gazing is inherently anxiety producing and defies social norms, therefore discomfort is normal. In and of itself, this is no different from setting up the target memory which is also inherently distressing but will resolve with processing. Sitting knee-to-knee is recommended, but, naturally, accommodations must be made as needed. Tapping on the outside of the client's knees is my preference, but clients may employ the butterfly hug, tap on their own body, or use auditory tones as their needs dictate.

Setup

Presumably, the target setup has been done in the previous, less than satisfactory set that has led to the adoption of the I–Gaze interweave. Thus, the same target image, cognition, emotion, and sensation are expected to be elicited. It is not uncommon for the image to fade during this procedure; I do not regard this as problematic because once the client is in the embodied state of the trauma, the interweave itself becomes the target.

However, the I–Gaze interweave has some additional setup procedures. The therapist must determine his or her preference for the eye into which the client is to gaze. This may be related to the form of eye dominance that determines the preferred eye one uses to peer into a telescope. The therapist must also choose which of the client's eye to gaze into. Bradshaw, Cook, & McDonald, (2011) have found emotional and sensory reactions to trauma memories to differ in each eye. My own anecdotal experience confirms this. Accordingly, clinical judgement should be used to choose which eye to start with, but the procedure should ultimately be completed with each eye.

Desensitization and Installation

The client is asked to think about the memory and gaze into the therapist's preferred eye while the therapist gazes into the client's pre-selected eye, and the dual-attention stimulus commences. The therapist is instructed to think kind, reassuring thoughts, for example, you're safe now; I see you are hurting; I'm here to help you; I am with you now. It is common for clients to feel embarrassed or self-conscious at first, but this yields to activation of the client's attachment system typically within one minute of beginning. The client's initial reaction to this interweave is diagnostic: fear, shame, yearning, dissociation, and aversion to making eye contact are all confirmatory of the assessment of insecure attachment.

Two or more sets of approximately one to two minutes in duration of the I-Gaze interweave may be sufficient to begin transformation of the client's felt-sense of earned secure attachment in the form of
receiving care and acceptance. Typical responses include feeling calmer, more grounded, cared for, the diminution or elimination of shame, and the gradual reduction or elimination of somatic symptoms of hollowness or emptiness. Negative cognitions of “I am alone,” or “I am not enough” etc. spontaneously give over to positive cognitions of “I have myself,” or “I am okay by myself.” To my astonishment, there have been no erotic or dependent transference reactions in 24 months of practice with over 40 clients: male and female, gay and straight, of various ages.

Additional resourcing: “Read the Message From My Eye”
If clients remain “stuck” or “looping” after a few sets, an additional cognitive interweave can be employed. For this indication, I ask the client to discern “the message my eye is sending you.” Compliance with this task requires curiosity of real-time data (the therapist's eye communication) combined with experiencing the implicit memory network. Psychologically, this task calls upon an observing ego function, or meta-cognition. Neurologically, the client's dorsal attention network (deal network) is called into play, competing for neuronal recruitment from the default mode network (me network). The result is a balancing of networks that is a putative mechanism for memory reprocessing (Carpenter, 2015).

The degree of insecurity and related defenses will largely determine the number of sets required to yield a shift in attachment status. More insecure individuals may perceive malice, indifference, or disgust in the therapist's eye or face. Some may see nothing at all—a “still face” (Tronick, Als, Adamson, Wise, & Brazelton, 1978), or experience visual distortions, retraction of the visual field into blackness, or have difficulty maintaining eye contact. Since we assume that the therapist is producing a caring, empathic signal, these reports are considered distortions that may be traumatic reenactments of early, implicit attachment experience (Schore, 2012).

Because this is an intersubjective enactment, the therapist's own thoughts and feelings during the procedure can be a rich resource for understanding the client's attachment dilemmas (Dworkin, 2005). Therapists are therefore advised to mindfully note their own reactions and recognize these as feedback about the “dance of attunement” they are striving to coordinate with their clients. As the therapist's attachment system—a right brain, implicit, emotional system—is attempting to regulate the client's dysregulated system, the therapist will experience the stress of this effort. My own experiences have included visual distortions, microsaccadic eye movements, self doubt, and distractibility. On the other hand, when I have felt that eye-gazing has been effortless and I have a sense of well-being and care for the client, the client often reports being able to receive care and feel worthy of care.

Additional resourcing: Compassion for the traumatized self
An invaluable resource for working with early trauma has been described elsewhere as using “Adult states as helpers,” (Watkins & Watkins, 1997), “Imaginal Nurturing” (Steele, 2003), or as the “Loving Eyes” procedure (Knipe, 2008). These are ego state interventions in which a mature, adult part of the self is invited to rescue or nurture a traumatized, younger ego state. The objective of the visualization— with or without DAS—is to facilitate a compassionate relationship between parts of self. As Knipe explains, “Oftentimes, the affect within a child ego state has never been compassionately observed, either by another person or by another part of the self within the personality system” (2009, p. 185). Ultimately, resolution of childhood trauma requires that the nurturing and compassion for ego states come from within the personality system (Howell, 2005; Watkins & Watkins, 1997). As a precondition for this, earned-secure attachment with the therapist becomes internalized as secure attachment between ego states.
The I–Gaze interweave can be used to augment different, complimentary variations of this ego state intervention. For example, clients can be invited to ask the traumatized ego state to look into the therapist's compassionate gaze and experience care and empathy directly from the therapist as a transitional object. Or, during mutual eye-gaze, clients can be asked to visualize rescuing and/or comforting the child ego state themselves. Finally, the client can be asked to witness this same rescue visualization from the child's perspective and experience receiving security from the here-to-fore rejecting older ego state. Combined with desensitization of the attachment trauma, these interventions can promote and install an embodied sense of a secure self.

CASE STUDY #1: Insecure Attachment in a Child
“Riley” was an 8 y.o. White female from an intact family; she lived with her biological parents and two younger sisters. Upon intake, Riley presented with emetophobia subsequent to seeing her sister vomit. Riley's anxiety spread to other fears related to being separated from her parents. In the course of treatment, Riley experienced bullying from peers and her anxiety escalated to panic attacks and severe shame reactions.

History
Riley's mother—Marion—has a family history significant for schizophrenia, bipolar illness, suicide, anxiety, and depression. Marion suffered from anxiety and depression, had a distinct, felt-sense that her own mother did not want her, and suffered a postpartum depression after giving birth to her second child when Riley was 20 months old. During this period, Marion said she wanted to hurt Riley, but instead removed herself from the room to protect her daughter. Marion began treatment with sertraline and her postpartum symptoms remitted.

Assessment and Treatment
Riley was diagnosed with emetophobia secondary to separation anxiety. She was seen with one or both parents a total of 56 times over 39 months and received combination of EMDR therapy, family therapy, school-based accommodations, and sertraline. 21 of these sessions involved EMDR phase four desensitization; 3 of these utilized the I–Gaze interweave.

In addition, Marion was seen 18 times and was treated with EMDR therapy. The therapy is considered successful and Riley has been symptom-free for 12 months post-treatment. Presently, at age 12, Riley is confidently traveling unaccompanied by airplane to visit relatives across the country.

Significant to this case study is the use of the I–Gaze interweave, developed at the end of Riley's therapy. Despite a positive response to standard EMDR and various resourcing strategies, Riley's anxiety and shame reaction had escalated at her 45th visit, with familiar triggers of being alone and hating herself. She was experiencing panic attacks and began scratching her arm to cope. Three EMDR sessions utilizing the I–Gaze interweave resolved her symptoms. Notably, in the second session, while Riley was in great distress and insisting that she is a very bad person, I added the “read the message from my eye” variation. In the first set, I gazed into Riley's right eye and her reaction was unchanged. In the second set, I gazed into Riley's left eye and once again asked her to read my eye. Riley instantly settled and appeared content. “What message did my eye send you?” I asked. “I'm amazing!” she replied, smiling. It was 11 months before I saw Riley again, though I continued to work with Marion through this period. Riley returned with a resumption of panic attacks, school avoidance, and emetophobia. One session of EMDR aided with the I–Gaze interweave left her calm and sad for the
The I—Gaze Interweave for Attachment Repair in EMDR Therapy: 2 Case Studies

girls who bullied her. A final session of standard EMDR future template work helped prepare Riley for her upcoming school year.

Discussion
The I—Gaze interweave seemed to provide a more long-lasting resolution of attachment-based symptoms (separation anxiety, self-hatred, shame, inability to self-regulate during relational conflict (bullying)) than the EMDR therapy provided to date. Moreover, Riley's differential response from her right eye to left eye was significant in several respects. First, she did not know which eye I was gazing into, and therefore demand characteristic was low. Second, her response differential suggests that each eye stimulates the attachment system differently. Third, this response differential, now repeated with dozens of clients, poses intriguing questions about occular-visual mediated neurological mechanisms. Fourth, it suggests that trauma work can be more precisely tuned to the client's neurology. Finally, the “read the message...” interweave seemed to implicitly install a secure sense of self.

CASE STUDY #2: Preoccupied Attachment Style
Thelma was a 43 y.o., once married White female living with her husband and their 10 y.o. son and her husband's 20 y.o. son from a first marriage. Thelma and her husband came into couples therapy to address conflicts surrounding the 20 y.o. It soon became apparent that Thelma's insecurity was at the root of many difficulties. She struggled with holding her husband accountable, or would feel guilt and fear when she did so, requiring reassurance from him afterwards. She felt she was “damaged goods” and that her husband would eventually agree that she is worthless and abandon her. She was jealous of her husband's friendships with other women. She was disgusted at her own body image. She found it difficult to receive care or love and found it hard to believe it was real.

History
Thelma's parents divorced when she was 5 y.o.; she did not know her father who abandoned the family. Her mother, whose own family was replete with stories of sexual and physical abuse, left Thelma home alone from age 12 on for extended periods of time. Thelma described her mother as cold and uncaring; she did not recall being comforted by her. Rather, Thelma found comfort in riding and caring for horses at a neighbor's farm. Thelma was molested by a cousin at age 10; she denied other sexual or physical abuse.

Assessment and Treatment
Thelma's childhood trauma is one of neglect. She was informally diagnosed with insecure attachment of the preoccupied type, and body dysmorphic disorder (BDD). She was seen for 57 sessions over 33 months, including 12 couples therapy sessions. 12 sessions involved phase four EMDR desensitization; 7 of these utilized the I—Gaze interweave. The therapy is considered successful with the bulk of the attachment work occurring in the first 9 months (22 sessions) of therapy. The remainder of the treatment focussed primarily on integrating new learning and behaviors with her husband, child, and peers. She has been free of insecurity symptoms or BDD for 6 months.

Notable in this course of treatment were Thelma's responses to EMDR aided with the I—Gaze interweave. Targets focussing on early childhood neglect or abandonment triggered depersonalization, dissociation of affect, and disgust. The use of somatic interweaves (Litt, 2012) kept Thelma grounded, and the I—Gaze interweave facilitated acceptance of herself as worthy of care. She described the experience as feeling a calming, “warm energy.” Thelma accepted positive cognitions of I have myself
and I can take care of myself. She became comfortable confronting her husband as needed without seeking his immediate reassurance. She no longer worried about him leaving her or looking at other women. She was more accepting of her body image. Significantly, Thelma cared for her mother as the latter was dying of cancer. Her mother remained dismissive and hostile to the end, yet Thelma did not personalize these interactions and was able to set limits with her mother. She accepted that her mother is someone who could not be pleased, and Thelma felt good about her final act as a loyal daughter.

Discussion
Thelma's attachment disorder is relatively mild; others with more severe attachment trauma would not respond as rapidly. I speculate that her childhood spent caring for horses—a social mammal—played a large part in her ability to mentalize and seek comfort in relationship. Thelma may have progressed without any specialized interweaves. Notable is how she rapidly internalized a secure sense of self, and sustained these gains through various relational stressors at the latter part of therapy.

CONCLUSION
Any conclusions from a case studies are speculative at best. Not all cases will yield the same results. The treatment provided had many therapeutic elements, the effects of which cannot be dismantled in this study. Riley has a supportive and secure family, and a supportive school environment. Thelma's attachment disorder was relatively mild; others with more severe attachment trauma would not respond as rapidly. I speculate that her childhood spent caring for horses—a social mammal—played a large part in her ability to mentalize and seek comfort in relationship. Both clients may have progressed without any specialized interweaves.

The proposed intervention violates accepted norms both in and outside the therapy room. Therapist and client sit closer than is customary, the therapist may touch the client to supply the DAS, and mutual eye-gazing is both unconventional and uncomfortable; a practice that is considered the province of romantic or filial relationships. Therefore, the lack of negative transference reactions is surprising. This is undoubtedly due to many factors unrelated to the I–Gaze interweave itself; other clinicians working with differing populations may have very different experiences. Nonetheless, my own anecdotal experience suggests that this intervention, despite its unorthodox and intimate nature, can be safe and effective.

In the two cases presented, as well as many others with whom I have utilized this intervention, it is notable how rapidly the clients internalized a secure sense of self. In more severe cases of attachment trauma, clients have not responded as rapidly and many sessions over many months have been required to achieve some internalization of the secure gaze. The I–Gaze interweave may offer a powerful and expedient dyadic resource in the EMDR therapy of attachment trauma.
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