A Split Beam Approach to Remote Mental Interactions: Expectation, Bonding and Temporal Footprints

Lian Sidorov
International Consciousness Research Labs
E-mail: liansidorov@gmail.com

Introduction

Mind-matter interactions pose a unique experimental challenge: if the operator's mental, psychological and physiological state are factors impacting the outcome of the experiment, as currently believed, then replicating these conditions from trial to trial is practically impossible, even when the same operator is used. In addition, there is evidence that environmental factors such as local sidereal time (see Spottiswoode, 1987) are also a part of the equation. Even without the indeterminism of wave function collapse such complex input variability would be a problem when attempting replication of an experiment; considering that most psi-modeling candidates rely on quantum mechanical arguments to explain the observed features of anomalous cognition and anomalous perturbation, the challenge of controlling input and process (QM state function reduction) variability becomes a major experimental stumbling block.

The following discussion is an attempt to address some of these control issues while searching for more precise ways to isolate

1. the effect of bonding and genetic overlap on operator-target and target network "entanglement"

2. the effect of experimenter expectation

3. the time "footprint" of actual operator-target contact

4. evidence of possible energy/ information transfer between operator and target

A couple of definitions are necessary before we proceed: "entanglement" is here used for the sake of convenience, as the physical and cognitive relationship between two separate entities (either operators or targets); there is no necessary assumption that this represents an actual state of quantum entanglement, only a critical degree of connection required for anomalous cognition/ anomalous perturbation. "Temporal footprint" is defined as the actual moment when the operator's intent (as anomalous cognition query or anomalous perturbation task) impacts the

designated target. However, we need to recognize from the start that to speak of a time footprint is only an approximation, and that to oversimplify the process may be a dangerous assumption. There is enough empirical evidence in the literature to suggest that information and causal influences tend to ebb and flow back and forth between operator and target, blurring that idealized "moment of impact" (see, for example, the GCP data preceding the September 11 attacks – Nelson and Bancel, 2006).

Perhaps as our conceptual and experimental tools become more sophisticated we will be able to redefine the way we look at such temporal and causal relationships, gradually shifting the discussion about "moments" to one about extended windows of potential influence between operator and target, which may or may not be the same as some yet vaguely defined state of quantum entanglement or critical degree of coherence between these components. However for the present we will limit ourselves to such primitive approximations and acknowledge the intrinsic ambiguities contained in the language.

Background

As every student of remote viewing is taught, RV tasking is time-specific. However, in mind-machine interactions and healing, the time of the effect is not typically requested. Given that remote healing efforts are often accompanied by anomalous cognition data about the target that manifests spontaneously (see Benor, 2001), one can postulate a certain symmetry or common mechanism between these two processes. Although PK involves injecting information into the target and RV is about extracting information from it, the fact that initiating one process triggers the other suggests that a similar type of "target contact" is a required step for both – therefore that the time specificity and the measurable correlates of RV should be observable in remote influence sessions as well.

But if RV attempts to pinpoint the target at a particular moment in time, then probe it repeatedly at that coordinate, does remote influence act in the same way? Does the impact occur at a specific moment or does it govern the behavior of the target over a period of time? If we assume the influence to take place at the level of wave function collapse events, is there a single collapse or a series of such coordinated events that are involved? (see Burns 2002, 2006) Does the length of intent application correlate with the size of the effect? If so, is it reasonable to assume that the correlation is due to driving multiple collapse events along the time axis, rather than strengthening the impact on a single quantum event? This is particularly intriguing considering that PK is typically "goal-oriented" (independent of the operator's understanding of specific mechanisms involved in the desired effect) and also that apparent retro-causal effects are in play (see Schmidt, 1987).

Since the healing intent is not time-specified, can we use measurable physiological or metabolic markers to pinpoint where on the time axis a healer actually exerts his/her influence on a target? And is there a way to measure the duration of this healing influence on the target, its strength, or the correlation between the target's genetic make-up and susceptibility to healing?

Clearly the number of variables in play as we ask these questions is sobering. But we may be able to control for some of the input complexity if we remember one of the key axioms of remote viewing ("intent is the glue that holds RV together" - Joe McMoneagle) and tweak our typical experimental set-up accordingly. For example, McMoneagle has described cases where the coordinates were incorrectly read, the spelling of a target's name was wrong, or the task envelope was not where it was supposed to be – yet the viewer described the intended target anyway. What seems to matter, above all, is the aligned intent of the participants (McMoneagle, 1997).

In a previous pilot study (Sidorov & al. 2005), we decided to use this observation to combine two distinct photographs under one single target coordinate, in order to test whether the motion characteristic of a target represented an attractor to remote viewers. Since the operator is blind to the nature of the target and the tasker's intent is what fuses the two images into one designated target, there should be no cognitive dissonance interfering with the operator's efforts: and indeed, the data collected during this preliminary study showed similar amounts of information coming through for each half of the target, to the extent that there was no statistical difference between the motion and no-motion image data pools.

The intrinsic operator calibration built into this approach is in fact equivalent to a split beam set-up, with the operator's intent acting as the beam, and the designated complex target splitting that intent (be it RV or PK in nature) between various component targets whose characteristics can be varied as needed. Regardless of environmental or operator conditions, the fact that the same resultant intent acts simultaneously on two or more targets means that the observed output differences are likely to be due to intrinsic target susceptibility differences. That, in turn, allows us a greater measure of confidence when looking at the effect of genetic overlap, bonding, expectation and other target factors on its susceptibility to operator intent.

In addition, we recommend measuring a broad set of demonstrated and recently proposed markers of mind-matter interactions (see below), in order to look for correlations between the strength and timing of these physical signatures, as well as to check the validity of these new techniques and broaden our experimental capabilities. It is possible that some physical correlates of psi may manifest before others, are more readily masked by background noise, or simply do not fit a particular experimental set-up. There is also a question of sensitivity – some markers, such as random event generators (which have shown deviations from baseline in the context of healing sessions or successful remote viewing (Crawford & al. 2003, IRVA's CRV-REG study, 2008) are statistical in nature, requiring a post-event analysis of pre-selected time windows. It would be ideal, especially with respect to psi applications as described by Lake (Lake, 2012a,b) if clear and instant signatures of operator/target contact could be read in real time for feedback purposes. One new technique, proposed by Larissa Cheran (Cheran 2012) , involves the use of a Transverse Shear Mode (TSM) Sensor - however properly designed, large-scale experiments need to be conducted for both REGs and TSM detectors before their consistency as individual background psi markers can be confirmed to a statistically significant degree. Finally, we could use such an approach to look for specific modeling predictions, such as Pitkanen's topological geometrodynamics - which posits, among others, the detection of electron and ionic currents

between operator and PK target or evidence of a "remote metabolism" powering target organisms in anomalous perturbation phenomena.

A number of possible experimental scenarios are sketched below.

.

I. Effect of bonding and genetic overlap on susceptibility to PK

Based on Backster's demonstration of correlations between leukocyte electrical conductivity and their donor's state of mind (Backster, 2003); and on empirical evidence for accelerated chemical reactions, increased plasma ATP and electrostatic, biophoton and ionic discharges at remote PK targets (Sidorov 2003) we suggest the following experiment:

- Consider 4 cell cultures, each split into two equal parts: A. a culture of the healer's own cells; B. a culture of same cell type from a close relative, or ideally an identical twin; C. a similar cell culture from an unrelated, unknown person; and D. a bacterial culture. The control A', B', C' and D' halves are removed to a different location.
- Create a composite remote target made of the A, B, C, D halves and designated it as T, informing the healer only that a living organism is involved, and giving the location of the target
- Ask the healer to send positive intent/ healing thoughts to the designated target "organism" and measure the following parameters ("markers") at A, B, C, D as well as the controls A', B', C', D', starting several hours before and continuing for several hours after the conclusion of the healing session:
    - Biophoton emissions (intensity, frequency, polarization)
    - electrical conductivity as measured by EEG/GSR electrodes (Backster method)
    - shifts in resonant frequency and motional resistance measured via Transverse Shear Mode (TSM) Sensor , per Larissa Cheran's proposal
    - Metabolic rate
    - Ion discharge
    - Change in REG baseline in the proximity of both healer and target

It is expected that a similar profile should be noted in A and A', B and B' etc several hours before the start of the experiment – this should be the control line. However, it would be interesting to see if the marker tracings at A', B', C' and D' remain unchanged after the start of the experiment, showing no connection with the healer's intent, or whether some degree of response is noted in any of them, based on a postulated previous "entanglement" with A, B, C, respectively D. Do the tracings at the "controls" follow those at the experimental samples and is there an attenuation effect noticeable in the controls? Do A, B, C and D respond to the healer's intent with the same effect size, or does previous "entanglement" between healer and A cells result in greater response than B? Is there a progressive diminution in effect size as the genetic

overlap between healer and cell sample decreases from A to D? Does the effect last longer in the more closely related cell samples?

One could also look for retrocausal versus real time healing effects based on target-end marker signatures (sharp deviations in marker baseline) before versus after intent application.

Finally, it would be interesting to measure the same parameters in a set-up where target T is successfully remote viewed: are there any deviations in the baseline that correlate with target contact when a timeline of the RV narrative is superimposed on the marker tracings? How do these RV signatures compare with the PK ones – is there a change in sign, polarization or other directional flips corresponding to information being extracted from, rather than injected into the target?

II. Temporal Footprint

Where does a healer's impact on a target take place? Given the goal-oriented nature of healing and the documented retrocausal features of PK (see Schmidt, 1987), it would be interesting to look for physical entanglement signatures indicating whether the seed event being influenced is in the past or future of the intent application.

Remote viewing a target at some specified time in the near future also offers a unique window on the temporal aspects of mind-matter interactions: can we detect physical signatures at the target within the specified future time window tasked to the viewer? Do similar signal spikes occur at the target at the time of the session? What modeling insights could be gained by comparing such data?

Let's consider a cell culture that is split into 2 equal halves, A and B: A (control) is placed at location 1 and designated as target MPQ, B at location 2, designated as target XYZ. The task at time T0 is to remote view B at time T0+48 hours, over a 2 hour window.

Using a set of multiple parameters, such as biophoton emissions, metabolic rate, electrical resistance, as well as proximal REG deviations (with REGs placed both at the target and at the viewer location), the following measurements ("markers") could be recorded:

- Marker profiles at A and B during the RV session
- Marker profile at A and B during the tasked RV window from T0+48hr to T0+50hr
- Marker baselines covering several hours before and after the RV session, as well as before and after the tasked future window

Based on IRVA's preliminary CRV-REG study (http://www.crvreg.org/study/overview/overview.html) showing some notable correlations between high quality RV data and viewer-proximal REG baseline deviations, we anticipate that the following scenario combinations are possible:

Successful RV data correlates with viewer-proximal REG deviations, and/ or:

a. One or more marker profile deviations, including REG, are recorded at target B during the tasked window at T0+48;
b. Marker deviations are noted at B during the RV session
c. Marker deviations are noted at A during RV session and /or during tasked window

Are there mirror spikes in the marker profiles between present and past tracings, or between A and B? Do they correspond to viewer-proximal REG signatures? If unusual, correlated photon signatures are detected, what is the relationship between present and future spike frequency, polarization and intensity, or between spike intervals comparing present and future tracings? And is there any evidence of ion discharge/unusual metabolic profile at A, B?

One variation of this experiment could ask the viewer to exert a "cueing push" on the target at predetermined times, as reminded by the monitor, and see if this temporary intense effort at probing the target results in any clear marker signatures, where they manifest and whether the spacing intervals between pushes and signatures correlate. Viewer biophoton emissions could also be compared to any emissions at the target (see Sidorov 2003).

III. Experimenter Effects (or: finding operators with no philosophical hang-ups)

The impact of expectation on the outcome of remote healing influence on a damaged cell culture could be tested in the following manner:

1. At time T0, expose cell culture to a noxious chemical or electromagnetic stimulus
2. At time T1, split the culture into two equal parts, A and B, verifying that markers are still equal between the two cultures (sheer manipulation or the number of cells on a sensor may affect readings (Cheran 2012)
3. At time T2, assign sample A to a skeptical experimenter, and sample B to a believer, informing them that a remote operator will send healing intent to the target in an attempt to correct some of the damage; the experimenters should be directly implicated by asking them to measure the parameters under observation and /or write a report about the outcome.
4. After spending some time in the proximity on the experimenters, samples A and B should be placed back at the same location at time T3, designated as a composite target with a unique identifier by the tasker, and that identifier should be given to the remote healer.

Again, baseline marker measurements should be compared at time T3 for calibration purposes

5. The individual marker readings should be compared from time T3 until several hours after the completion of the healing session.

Are there differences in PK response between the target that was "pre-treated" by a believer's expectation versus a skeptic's? If so, when do the baseline tracings begin to diverge between A and B? Are there some parameters that show more robustness to experimenter's expectation than others?

The effect of the experimenter's expectation (EE) on psi outcomes is however something that invites additional comment at this point. Non-significant results are often documented for skeptical experimenters, where the identical set-up produced significant results when the study was conducted with positive expectation. The well documented decline effect seems to be driven by a similar mechanism – loss of enthusiasm/motivation on the operator's part appears to correlate strongly with a dip in effect size. Perhaps nothing exemplifies these phenomena better than Garret Moddel's 2011 elegant anticipatory REG experiment (Moddel 2012)*.

Small psi signals thus appear susceptible to smearing between much larger EE deviation effects, so "proof of existence" studies may face an irreducible problem regardless of how sensitive our detection methods become, like an ironic twist on the quantum uncertainty principle

However, the question we should ask ourselves is the following: given what we know about the overwhelming impact of EE in mind-matter phenomena, should we keep worrying about proof-of-existence issues, or turn the problem on its head and instead use this knowledge to strengthen psi effect sizes? The primary experimental challenge should perhaps not be one of replicability between believer/skeptic scenarios, but one of standardizing positive expectation in order to strengthen the signal and its internal features; not a question of "**does** it happen?" but one of "**when** it happens, what does it tell us about the fabric of reality?"

If the physical correlate signal is corrupted by the conscious and unconscious beliefs, expectations and motivations of the experimenter and participants, then the question is how to control these vectors, or at least predict them to any degree of accuracy. In Moddel's experiment, an attempt to exclude conscious influence from the experimental setup by using "inert" REGs' as both operators and subjects left the system fully vulnerable to the experimenter's expectation/motivation. Since those factors fluctuate continuously and real motivation is difficult to fake, such an experimental model is not as robust for long-term replication purposes.

But what if instead of a (presumably neutral) REG we used a standardized cell line culture as the operator – in a set-up similar to Peoch's chick-REG or the PEAR veggie-REG experiment? That is, the cell culture would have the opportunity to influence the behavior of a REG-controlled mechanical device that opens to dispense small amounts of nutrients; if the culture is kept relatively "hungry" in terms of available food sources, then one could reasonably assume that its primary motivation will be to seek nutrients, and that this motivation will remain constant over the duration of the experiment. Thus a two-phase experiment could be conceived, where human

strong motivation/EE + the culture's intent combined produce the initial response; then as the human component of the consciousness vector drops out and the typical decline effect sets in, the cell culture's primitive, steady hunger motivation is left to drive the experiment. (Note: it's also possible that such hunger drive is a periodic metabolic phenomenon, but that can be verified ahead of time and a "baseline" modified accordingly)

This leaves us with a built-in, predictable conscious drive sustaining the process (in fact, the less interested the experimenter becomes, the clearer the cell culture signal line is likely to show). In addition, using a standardized cell culture under standardized laboratory conditions is as close as we are like to get to a reproducible psi operator, with the added advantage that multiple physiological and metabolic correlates can be continuously monitored, and invasive assays (such as cytology) are also available. Such a signal is far more predictable than the rise and fall of human excitement and disinterest – which makes it easier to start experimentally testing different variables and isolating real signals.

Possible questions to ask under this scenario: is there statistically significant evidence for greater-than-expected "open" (i.e. nutrient release") device configurations? Are there any marker spikes at the culture or at the device end, corresponding to these windows of deviation from expectancy, and do they show any correlations (ie spikes simultaneous at operator/target, or similar photon spectra, etc)

IV. Modeling Predictions

Historically we have been looking for viewer-end physical correlates of RV contact – but a human operator is an extremely complex system, which makes the identification of such subtle signals very challenging. Trying to find consistent patterns when we do not know what we are looking for and the viewer's cognitive/emotional/physiological state is in constant flux seems an almost impossible task. However, if we identify RV signatures at the target, it may become easier to recognize mirror or similar patterns at the viewer end, thus narrowing our experimental focus and increasing the likelihood of true signal detection. But what kind of signatures should we expect at the target end – and are these universal or do they vary with the target make-up?

As mentioned before, Pitkanen's TGD model includes a number of predictions, such as the non-dissipative transmission of electron and ionic currents along magnetic flux tubes generated between operator and target in PK and RV set-ups and the existence of a "remote metabolism" mechanism whereby living organisms can generate ATP via negentropic entanglement with distant targets. (Pitkanen 2012a,b,c).

There is preliminary data supporting these theoretical mechanisms (see Sidorov 2003 for review). In addition, we have previously suggested ways to test for the injection of remote energy into uncatalyzed chemical reactions; to look for "ion leakage" in the vicinity of remote targets; to use hemocytometer measurements and a tetrazolium salt assay or labeled DNA precursors to differentiate between the insertion of remote energy into a cell culture target versus

a change in metabolic requirements ("cellular Bigu"); to use biophoton detection techniques to look for correlations between remote viewing cueing intent or data and target electromagnetic signatures, as well as time lags between EEG synchronization between distant subjects and spikes in biophoton emissions; and to test the duration of entanglement between two separate targets (Sidorov 2003). Many of these experiments could be further refined by using the split beam approach described in this article. For example, one could combine a living and inanimate target as the composite target of an operator's PK intent; place these in proximal but separate dark chambers equipped with low noise photomultipliersin single photon counting mode; and compare the photon signatures over the duration of the session: are the photon spikes at the two targets taking place at the same time? Does one target show more of a lag time? Is there a difference in the photon frequency or polarization, possibly suggesting that living organisms may absorb necessary frequencies/control information (per Gariaev) and re-emit photons in a different spectrum? Is there evidence that biological targets are more susceptible to healer entanglement? Is there a correlation between the biophoton frequency/polarization emitted by the healer and those detected at the targets?

A remote viewing variation on this experiment could superimpose a timeline of the reported data and the biophoton emission records and see whether living target data correlates with a spike in emissions at that half of the target.

Final Considerations

If consciousness is to become part of an experimental physicist's list of variables, as foreshadowed by the insights of most of the founders of quantum mechanics and by the accumulated evidence of one century of controlled parapsychology studies, then we need to find ways to isolate the real signatures of mind-matter interactions from the noise of a complex biological and cognitive system. It is still far too early to tell whether the indeterminism of wave function collapse has anything to do with the fundamental fuzziness of consciousness – be it local, as in the transition from measuring apparatus to the "meaning" attributed to that measurement by a conscious observer - or global, as in Wheeler's final conclusion that *"intelligent life […] must go on to pervade every part of the universe in order that every bit of information about the physical state of the universe should eventually be observed"* (Weinberg 1992). But in order to extend quantum experiments past the Observer roadblock, we may have to recognize our intrinsic limitations as "superior creatures" and trade our sophisticated intelligence for that of very simple organisms. Being able to empathize with Hamlet, it turns out, makes us irreparably noble, complex moral beings capable of contemplating the vast reaches of the universe - but also inferior to a sea cucumber when it comes to controlling the deep mechanics of that universe. (*On second thought, maybe I should abstain from that remark?*) Whether we can learn to change this is a challenge with intriguing consequences.

*I'd like to thank Liam Gray for drawing my attention to Garret Moddel's REG experiment

REFERENCES

Backster, Cleve (2003) *Primary Perception*. White Rose Millennium Press, Anza, CA 2003 pp 109-122

Benor, Daniel J. (2001) *Spiritual Healing: Scientific Validation of a Healing Revolution*. Volume I. Vision publications, Southfield MI 2001

Burns, Jean (2002), Quantum fluctuations and the action of the mind, *Noetic Journal*, 3(4), 312-317. <http://www.mindspring.com/~l.o.v.e.r/Burns-01.pdf>

Burns, Jean (2006), The arrow of time and the action of the mind at the molecular level, in D.P. Sheehan (Ed.), *Frontiers of Time: Retrocausation – Experiment and Theory*(Melville, NY: AIP Conference Proceedings), pp. 75-88. <http://www.mindspring.com/~l.o.v.e.r/Burns-05.pdf>

Cheran, Larissa-Emilia (2012) *Exploring the Mechanisms of Interaction between Human Consciousnes and Networks of Living Neurons*, JNL preprints July 2012 http://journals.sfu.ca/jnonlocality/public/journals/1/PREPRINTS/LarissaCheranNeuralNetwork071912.pdf

Crawford CC, Jonas WB, Nelson R, Wirkus M, Wirkus M. (2003) *Alterations in random event measures associated with a healing practice* J Altern Complement Med. 2003 Jun;9(3):345-53 http://www.ncbi.nlm.nih.gov/pubmed/12816623

IRVA CRV-REG Study (2008) http://www.crvreg.org/study/overview/overview.html

Lake, James (2012a) *Augmented Cognition to enhance human sensory awareness, cognitive functioning and psychic functioning: a research proposal in two phases*, JNL preprints July 2012 http://journals.sfu.ca/jnonlocality/public/journals/1/PREPRINTS/JamesLakeAugmentedCognition071912.pdf

Lake, James (2012b) *Expanding the Paradigm in DMILS/HI research: a proposal in four phases*, JNL preprints July 2012 http://journals.sfu.ca/jnonlocality/public/journals/1/PREPRINTS/JamesLakeHIResearchProposal071912.pdf

McMoneagle, Joseph (1997) *Mind Trek: Exploring Consciousness, Time and Space Through Remote Viewing*. Hampton Roads Publishing, Charlottesville, VA 1997 pp 136

Moddel, Garret (2012) *Building a Prescient Machine* EdgeScience #11 June 2012 http://www.scientificexploration.org/edgescience/edgescience_11.pdf

Nelson, Roger. and Bancel, Peter (2006) *Anomalous Anticipatory Responses in Networked Random Data* AIP Conf. Proc. 863, pp. 260-272
at http://noosphere.global-mind.org/papers/pdf/GCP.AAAS.06.pdf

Pitkanen, Matti (2012a) *Quantum Mind in TGD Universe*, JNL preprints July 2012
http://journals.sfu.ca/jnonlocality/public/journals/1/PREPRINTS/chlianPC.pdf

Pitkanen, Matti (2012b) *TGD Inspired View About Remote Mental Interactions and Consciousness-Related Anomalies: Part I*, JNL preprints July 2012
http://journals.sfu.ca/jnonlocality/public/journals/1/PREPRINTS/chlianPRM11.pdf

Pitkanen, Matti (2012c) *TGD Inspired View About Remote Mental Interactions and Consciousness-Related Anomalies: Part II*, JNL preprints July 2012
http://journals.sfu.ca/jnonlocality/public/journals/1/PREPRINTS/chlianPRM2.pdf

Schmidt, Helmut (1987) The Strange Properties of Psychokinesis *Journal of Scientific Exploration*, Vol. 1 No. 2, 1987 http://www.fourmilab.ch/rpkp/strange.html

Sidorov, Lian (2003) *New Experimental Proposals: Distant mental interactions, entanglement and energy signatures* JNLRMI Vol. II Nr.2 July 2003
http://www.emergentmind.org/proposalsII2.htm

Sidorov, Lian, Julie Reeung, Dan Bailey, John Cook, Linda Lazarus, Gerry Zeitlin, Bill Stroud 9 (2005) *Cognitive Clusters and Attractors in Remote Viewing: a Pilot Study* JNLRMI Volume III, Number 1 March 2005 http://www.emergentmind.org/RV2005.htm

Spottiswoode, S. James P. 91997) *Apparent Association Between Effect Size in Free Response Anomalous Cognition Experiments and Local Sidereal Time*
Journal of Scientific Exploration, Vol, 11, No. 2, 1997

Weinberg, Steven (1992) *Dreams of a Final Theory*. Random House, New York, NY 1992, pp 251