Article

Transnational FieldREG Exploration II: Investigating the FieldREG Phenomenon in a Range of Novel Settings

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Abstract

A series of preliminary field experiments investigating the phenomenon of consciousness-correlated effects on Random Event Generator (REG) devices was recently conducted by our group, which revealed interesting effects on these random physical systems associated with subjectively emotional events occurring in the immediate environment. We have since explored a range of novel settings in the context of this apparent "FieldREG" effect. This has included a number of specific environments which expand upon the previous literature in this area by investigating additional phenomena typically associated with classic parapsychology. While the results obtained for these particular experiments supported our initial hypotheses in general, the re-examination of a religious setting proved particularly inconsistent, while still presenting some intriguing overall results. Exploratory theoretical considerations are suggested for future research.

Key Words: consciousness, religious experience, poltergeist, haunt, random event generator (REG), subtle energies, FieldREG.

1. Introduction

Decades of empirical investigation have demonstrated the apparent mind-matter interaction between consciousness and external random physical systems [1-2]. This phenomenon of consciousness-correlated collapse (3C) has also recently been examined in the context of potential biophysical factors which may be involved in this anomalous process [3-6]. The apparent 3C effects previously observed suggest that the pre-stated conscious intentions of a human operator appear to influence the outcome of a random physical system, such as a Random Event Generator (REG) device. Despite the counter-intuition of these findings, there have been theoretical propositions which suggest that the phenomenon of mind-matter interaction, or 3C, could be allowed by physics [7-8]. By employing a theoretical approach that remains consistent with the emerging paradigm of paranthropology, we may also be able to apply cultural-behavioural phenomena to the context of physical anomalies and consciousness in general [9].

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A series of studies involving field work with REGs (FieldREG) previously conducted also seem to reveal the potential for the synchronously directed attention and emotional state of individuals in groups to influence the outcome of a REG device [10-12]. It has been difficult to apply theoretical models which might sufficiently encompass the observations. However, the data have suggested new and intriguing dimensions to the phenomenon of interactions between consciousness and extracerebral processes.

In our previous FieldREG study [12], we pursued an additional hypothesis regarding the overall directional component of the random output of a REG device. This valence theory suggested that the overall direction of REG data (e.g., more positive vs. more negative values) would correspond to the emotional valence of individuals in the proximal environment (e.g., positive vs. negative emotions). While the results generally supported this hypothesis with significantly different REG deviations observed between positive and negative emotional group settings [12], further experiments were strongly suggested in order to obtain further support for this additional theory. Thus, for the current FieldREG II initiative, we chose to again investigate scenarios of both positive and negative emotional associations, as well as a relatively mundane site. We predicted significant deviations in random data collected on-site would occur in relation to the more novel time-segments, again, according to previous hypotheses [12], while it was suspected that generally positive trends in the data would be observed during emotionally positive activities, while negative deviations should occur during the emotionally negative scenarios. Finally, the relatively mundane setting was hypothesized to show REG results consistent with chance expectations.

Despite the previous investigations [10-12], there remain a number of "paranormal" settings typically examined in parapsychology which have yet to be studied with regard to potential FieldREG-like effects. This includes classic cases of haunt and poltergeist episodes. While these paradigms are strongly linked by an overt thematic association and similar physical manifestations (e.g., object movement, reports of hearing or seeing things, etc.), they differ in some important respects. While alleged haunts are often associated with a specific area or environment [13-14], an individual is typically the focus of activity in poltergeist cases [15-16]. Furthermore, previously investigated reports employing robust biological quantification have more often focused on the poltergeist phenomenon [16]. This is important due to the theoretical and empirical associations observed between poltergeist activities, often termed "recurrent-spontaneous psychokinesis" [17-18], and mind-matter interaction. If we assume that the FieldREG phenomenon likely employs similar processes to 3C interactions with REG devices, it could be that any FieldREG effects observed in a poltergeist (or haunt) environment may further support the poltergeist as "macro-psychokinetic" manifestation hypothesis [17].

While a number of religious [12] and other spiritual practices [19] have also been examined in the context of the apparent FieldREG effect, these have typically been conducted in open, public environments which might possess high inter-environment variability among local consciousness (e.g., widely varied belief systems among nearby individuals). However, scenarios involving a relatively homogenized group consciousness may be another important factor in the FieldREG phenomenon. This suggestion could be supported by previous results regarding the apparent importance of wide-spread coherent individual directed attention as a potential factor in global FieldREG effects [20-22]. If coherent neuroelectrical states of consciousness do contribute to

this process, then perhaps a more unified collective consciousness could "compensate" for any potential loss in effect that might be introduced by smaller groups of nearby individuals [12]. With this in mind, we conducted further FieldREG investigation within an enclosure of Catholic nuns. We suspected that any significant effects observed would be associated with times of prayer, either during or following the actual segment of time. We had hypothesized that effects might occur following the event given previously observed potential "lag" and anticipatory effects of consciousness on REG devices [23].

2. Methods

2.1. Equipment

Random data were produced using two Psyleron REG-1 random event generators (www.psyleron.com). This device produces a random output which is generated by electron tunneling effects within two field effect transistors. The varying voltage levels which result from this process are converted into digital data through a gated sampling procedure which allows for regularly spaced bit sequences. The output of both transistors is internally compared through an alternating (0, 1) XOR masking process in order to reduce any potential influence of physical artifacts or other external environmental variables. The device itself is further protected from static electromagnetic factors by an aluminum outer shielding and a Permalloy mu-metal inner shield. Furthermore, the device was rigorously calibrated prior to shipment in order to ensure output conformed to statistical expectations. The random event generator (REG) devices were also tested in control experiments within respective laboratories (Spain and Canada) to confirm these expectations. The resulting data streams were collected through USB-port using the Psyleron FieldREG software package on laptop computers. Individual events were produced at a rate of either 1/sec or 5/sec (1 event = 200 bits). However, internal consistency was maintained within each experiment. There were no significant differences noted between event rates in previous testing [12].

Values for each individual REG event refer to the number of 1's out of 200 bits with binary probabilities, represented by a value of 0-200. The theoretical (chance) mean for each event is 100 with a standard deviation of $\sqrt{50}$. Each data segment (time period) from each experiment was processed and analyzed independently according to manually time-stamped behaviours and other occurrences in the local environment.

Data processing and descriptive statistical procedures were conducted using Microsoft Excel software.

2.2. Data Processing

REG data from each segment within each experiment condition were analyzed independent of either previous or subsequent values; relevant statistics and figures were produced accordingly. Individual REG event scores were standardized according to 0.5 chance expectations ([x-100] / $\sqrt{50}$). Combined overall z-scores for each overall experiment and each individual segment were computed using Stouffer's method ($z_c = \Sigma z / \sqrt{N}$) where z = individual event z-scores and N = the number of event scores. Effect sizes follow the relationship $es = z_c / \sqrt{N}$, which is equivalent to

the mean event *z*-score. One-tailed probabilities (1T) are reported according to *a priori* valence hypotheses previously suggested [12] regarding the directional component of REG output. Measurement uncertainty for each segment (σ_μ) was computed according to $\sigma/\sqrt{2N}$, where $\sigma = \sqrt{50}$ and N = number of REG events.

2.3. Locations

A number of varied settings were investigated with REG devices in both Spain and Canada. Data were examined according to overall experiments and by time-stamped segments following human events in proximity to the test environment.

The first reported experiment occurred within a nuns' enclosure convent located in the outskirts of Madrid, Spain. Data collection began on March 8, 2014 and was started at 18:25 local time. Recording of random data was continuous for approximately seven days. However, given inconsistencies with start time on the first day and subsequent segment range and REG event sample discrepancies, along with laptop battery failure on the seventh day, these times were excluded from further analyses. As a result, *Days 1* to *5* below indicate data obtained on March 9 to 13, 2014. The actual REG device was located in the main chapel, placed inside of a box underneath a seat located proximal to the area where about 12 enclosure nuns develop their spiritual activity (Figure 1). Data were sampled at a rate of 5 events/sec (200 bits/event).

Figure 1. Location of REG device (arrow) throughout the *Convent* experiment

The primary "anomalous" site visited (*Poltergeist*) was that of a family home in Umbrete, Spain, on February 12, 2014. This location and the individuals residing here were associated with an alleged poltergeist case, which was supposedly being "produced" by the younger sister of the family (two sisters, 16 and 23 years old, and mother). The family was in the process of moving away from the house during this time. The REG device was placed in the younger girl's bedroom (e.g., Figure 2), and collected data at 5 events/sec (200 bits/event).

Figure 2. REG device was situated in the bedroom of the youngest sister (16 years of age), who was the apparent focus for the *Poltergeist* events; scratches similar to those on the wall in this image were found around the house (e.g., on TV screen, on desk, etc.)

The next 'anomalous' case investigation (*Haunt*) involved a site associated with a series of gruesome murders, said to be a haunt site, located in Madrid, Spain. Researchers visited the site on January 9, 2014 and placed a REG device in the approximate center of the building (Figure 3). Data collection was conducted at a rate of 5 events/sec (200 bits/event). While the primary field researcher left the site, there were a number of individuals present throughout the experiment, including a journalist and psi-sensitive individual (CT), an additional journalist (C), a well-known medium (PN), and a TV crew.

Figure 3. Camera(s) view inside *Haunt* location

Experimenters also visited a minor historical location (*Small Disaster Site*) in Glengarry, Ontario, Canada, known as St. Raphael's Ruins (Figure 4; www.saintraphaelsruins.com/). There was a large fire which occurred here in 1970, destroying all but the stone walls of one of the first Roman Catholic churches in early English-settled Canada, while the ruins are currently considered a national historic site. The REG device was placed both in front and back of the building proper on January 27, 2014, while data collection was conducted at a rate of 1 event/sec (200 bits/event).

Figure 4. Front of St. Raphael's Ruins (2005), location of *Small Disaster Site* experiment. Image source: www.saintraphaelsruins.com

3. Results

3.1. Convent

While we have previously investigated spiritual and religious activity in proximity to random physical systems [12], the *Convent* experiment provided a very interesting opportunity to investigate potential effects of "professional" religious workers over the course of many days. Random Event Generator (REG) data were segmented according to a schedule of daily activities provided to us (Table 1). Relevant statistics were computed for each individual day of testing, as well as for each segment identified *a priori*.

Table 1. Schedule of daily activities in the convent

Activity	Local Time (UTC +1:00)
1. No Activity	00:00-07:00
2. Prayer	07:00-08:30
3. No Activity	08:30-10:00
4. Mass	10:00-10:45
5. No Activity	10:45-11:00

6. One Elderly Nun Prays	11:00-12:00
7. No Activity	12:00-12:45
8. Psalms	12:45-13:00
9. No Activity	13:00-14:50
10. Singing	14:50-15:00
11. Varied	15:00-16:00
12. Prayer	16:00-16:15
13. No Activity	16:15-19:00
14. Pray/Psalms	19:00-20:30
15. No Activity	20:30-22:15
16. Psalms/Lectures/Rosary	22:15-22:30
17. No Activity	22:30-00:00

Given the directional hypotheses of emotional valence, we suspected that significant deviations obtained in REG output would conform to an overall positive mean. Furthermore, we anticipated any anomalous REG scores to be associated with time-segments involving prayer, or those following prayer.

Please note that additional Tables for *Convent* results are available in a supplementary Appendix section.

The most interesting pattern observed for the first full day of consistent data collection (Table 2) was the occurrence of significant REG deviations during periods of No Activity which followed Prayer (N_{events} = 27001, z_c = -1.896, p = .029 and N_{events} = 49501, z_c = 2.282, p = .003) and Rosary segments (N_{events} = 9001, z_c = 2.011, p = .022). While the preliminary significant segment displayed an overall trend in the direction opposite of that anticipated by the previously proposed valence hypothesis, the following two segments of note displayed markedly significant deviations from chance expectation with a positive overall shifting of the mean (e.g., Figure 5), as would be predicted by the hypothesis. Furthermore, we had anticipated potential effects could occur following segments of prayer given previously observed lag and anticipatory dynamics of FieldREG effects.

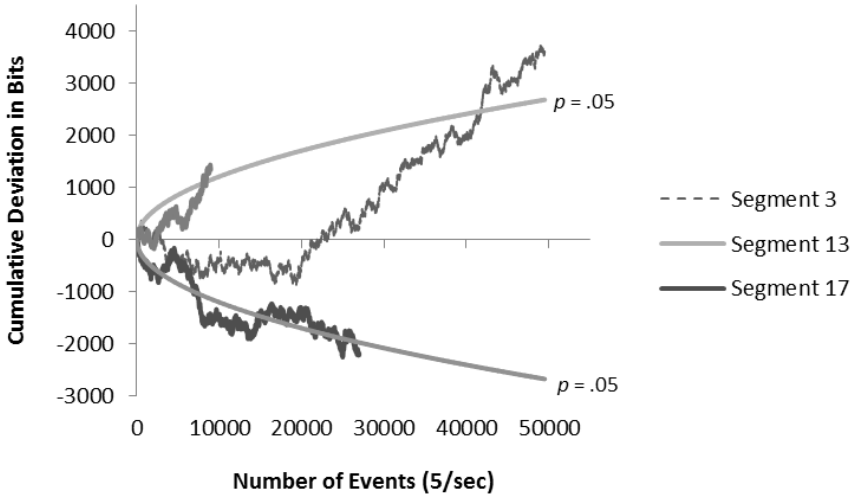

Figure 5. Significant cumulative deviations in REG data during *Convent [Day 1]* experiment segments of No Activity following Prayer/Rosary segments; grey parabolic curves indicate threshold for statistical significance (p = .05)

Table 2. REG event data for each *Convent [Day 1]* segment; N = number of REG events, z_c = combined z-score, *es* = effect size ($z_c/\sqrt{N}$; equal to mean REG z), p = probability (1T) of z_c, σ_μ = measurement uncertainty ($\sigma/\sqrt{2N}$, where $\sigma = \sqrt{50}$); *****significant at $p < .05$ (1T); †Prayer/Rosary segments preceding significant No Activity segments

Segment	N	z_c	p	*es*	σ_μ
FULL	432016	.684	.247	.001	.008
1. No Activity	126000	-.076	.47	< -.001	.014
2. Prayer †	27001	-.565	.286	-.003	.03
3. No Activity *	**27001**	**-1.896**	**.029**	**-.012**	**.03**
4. Mass	13501	-.422	.337	-.004	.043
5. No Activity	4501	-1.427	.077	-.021	.075
6. One Elderly Nun Prays	18001	-.102	.46	-.001	.037
7. No Activity	13501	.811	.209	.007	.043
8. Psalms	4501	.694	.244	.01	.075
9. No Activity	33001	.872	.192	.005	.028
10. Singing	3001	-.454	.325	-.008	.091
11. Varied	18001	.164	.435	.001	.037
12. Prayer †	4501	-.613	.27	-.009	.075
13. No Activity *	**49501**	**2.282**	**.003**	**.01**	**.023**
14. Pray/Psalms	27001	1.044	.148	.006	.03
15. No Activity	31501	.096	.462	.001	.028
16. Psalms/Lectures/Rosary †	22501	-.685	.247	-.005	.033
17. No Activity *	**9001**	**2.011**	**.022**	**.021**	**.053**

In contrast to previous findings, there were no significant REG scores obtained during the *Convent [Day 2]* experiment (*p*s > .05; Appendix Table A.).

Results from the *Convent [Day 3]* testing period again differed from those revealed during *[Day 1]*. The first segment including readings of Psalms was significantly different from chance expectations, while the overall trend was in the direction opposite of that predicted, displaying more negative values than positive (N_{events} = 4501, z_c = -2.142, p = .016). The following Prayer segment (Table 3, 12) was also statistically significant, but revealed more positive values overall, as earlier directional hypotheses would suggest (N_{events} = 4501, z_c = 2.093, p = .018). While the subsequent segment of No Activity which followed this positively significant Prayer activity displayed a significant REG deviation, in line with results from *[Day 1]*, the overall directional component was negative (N_{events} = 49501, z_c = -2.102, p = .018).

Table 3. REG event data for each *Convent [Day 3]* segment; N = number of REG events, z_c = combined *z*-score, *es* = effect size ($z_c/\sqrt{N}$; equal to mean REG *z*), p = probability (1T) of z_c, σ_μ = measurement uncertainty ($\sigma/\sqrt{2N}$, where σ = $\sqrt{50}$); *****significant at p < .05 (1T), † indicates Prayer segment preceding significant No Activity segment

Segment	N	z_c	p	*es*	σ_μ
FULL	432016	.615	.269	.001	.008
1. No Activity	126000	.438	.331	.001	.014
2. Prayer	27001	1.224	.111	.008	.03
3. No Activity	27001	1.022	.153	.006	.03
4. Mass	13501	.162	.436	.001	.043
5. No Activity	4501	-1.054	.146	-.016	.075
6. One Elderly Nun Prays	18001	.044	.483	< .001	.037
7. No Activity	13501	.374	.354	.003	.043
8. Psalms *	**4501**	**-2.142**	**.016**	**-.032**	**.075**
9. No Activity	33001	.113	.455	.001	.028
10. Singing	3001	.1	.46	.002	.091
11. Varied	18001	.013	.495	< .001	.037
12. Prayer * †	**4501**	**2.093**	**.018**	**.031**	**.075**
13. No Activity *	**49501**	**-2.102**	**.018**	**-.01**	**.023**
14. Pray/Psalms	27001	1.126	.13	.007	.03
15. No Activity	31501	1.432	.076	.008	.028
16. Psalms/Lectures/Rosary	22501	.75	.227	.005	.033
17. No Activity	9001	.848	.198	.009	.053

While the preliminary reading from Psalms during *[Day 3]* testing displayed a conspicuous REG deviation, the segment of No Activity following this period displayed a significant trend on *[Day 4]* (N_{events} = 33001, z_c = -2.21, p = .014). While the overall direction of this data was found to coincide with the Psalms deviation obtained the previous day, both were revealed to be in the opposite direction of what had been anticipated (Figure 6). The only other segment during *[Day*

4] to produce a significant REG score was found while the nuns were Singing (N_{events} = 3001, z_c = 1.957, p = .025). Furthermore, this particular activity demonstrated an overall positive trend consistent with our initial theories. All other time periods displayed results similar to baseline testing (Appendix Table B.).

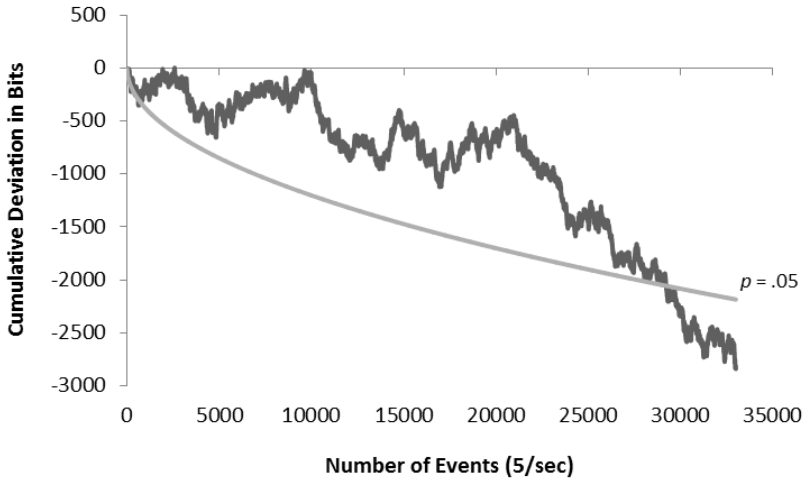

Figure 6. Significant cumulative deviation in REG data during *Convent [Day 4]* experiment segment of No Activity following Psalms segments; grey curve indicates threshold for statistical significance (p = .05)

Finally, the last full day of testing, [Day 5], revealed a single independently significant time period of REG output which coincided with the first segment of Prayer for that day (N_{events} = 27001, z_c = 1.929, p = .027). This particular period of testing also deviated in the direction hypothesized by the emotional valence theory previously posited with a positive overall mean (Figure 7). All other time segments from *[Day 5]* displayed non-significant results (Appendix Table C.).

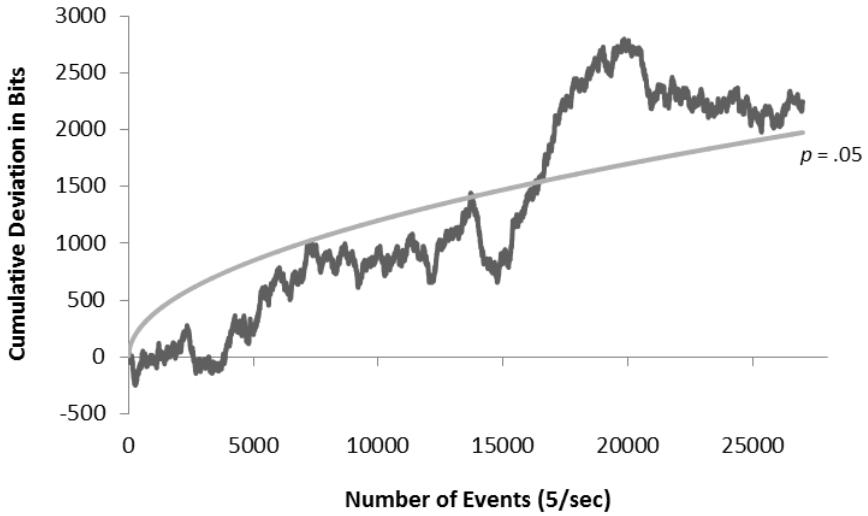

Figure 7. Significant cumulative deviation in REG data during *Convent [Day 5]* experiment, preliminary Prayer segment; grey curve indicates threshold for statistical significance (p = .05)

3.2. Poltergeist

While the setting for the previous experiment was relatively similar in nature to our earlier results [12], the *Poltergeist* case allowed us to examine an area of parapsychology which has seen very little attention in the literature. This is particularly vexing given the strongly hypothesized links between macro-scale mind-matter interaction and poltergeist phenomena [6, 24]. In these cases, an individual is often the "focus" or "source" of the apparent activity, which may include unexplained movement of relatively large-scale objects [17]. Again, the REG data were segmented according to time-stamped notes taken by a Transnational Anomalies Research (TAR) senior investigator. Statistical results were computed for both the full experiment and for each time segment. These included researchers alone in the house, the sisters returning to the house, the youngest sister (apparent focus of the reported poltergeist activity) entering the room where the REG device was located, and a hypnosis session conducted by the on-site TAR senior investigator with the younger sister (Table 4).

According to our preliminary hypothesis regarding emotional valence in relation to the directional component of the FieldREG phenomenon [12], we expected any significant excursions away from the mean found within the data to be negative (down).

Final statistical results revealed a small but statistically significant overall deviation for the full experiment (Figure 8; N_{events} = 42992, z_c = -1.751, p = .04). The directional component of the REG data (negative, down) supported the pre-stated hypothesis according to the emotional valence theory, given the extremely negative emotional state attached to this location by the surrounding individuals. The only other test segment which deviated significantly from chance expectation occurred when the family had left, while the experimenters were alone in the house (N_{events} = 7500, z_c = -1.803, p = .036). All other segments were within the expected range (ps > .05).

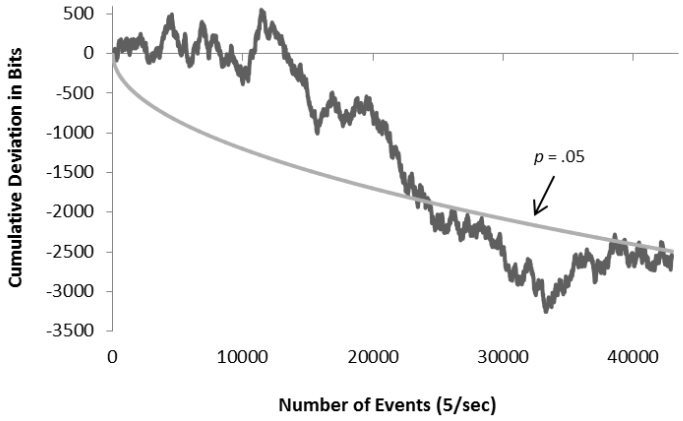

Figure 8. Cumulative deviation in REG data during *Poltergeist* experiment; grey curve indicates threshold for statistical significance (p = .05)

Table 4. REG event data for each *Poltergeist* segment; N = number of REG events, z_c = combined *z*-score, *es* = effect size ($z_c/\sqrt{N}$; equal to mean REG *z*), *p* = probability (1T) of z_c, σ_μ = measurement uncertainty ($\sigma/\sqrt{2N}$, where $\sigma = \sqrt{50}$); *****significant at $p < .05$ (1T)

Segment	N	z_c	*p*	*es*	σ_μ
FULL *	**42992**	**-1.751**	**.04**	**-.008**	**.024**
1. Start REG	15000	-.643	.26	-.005	.041
2. Alone in House *	**7500**	**-1.803**	**.036**	**-.021**	**.058**
3. Investigators Return	1500	-.632	.264	-.016	.129
4. Girl in Living Room	4500	-.725	.234	-.011	.075
5. Girl in Bedroom	6000	-1.358	.087	-.018	.065
6. Hypnosis	8492	.545	.293	.006	.054

3.3. Haunt

Locations which are considered to be "haunted" differ from poltergeist phenomena, in that an individual is typically the focus of the physical manifestations associated with poltergeists [16-18]. However, in alleged haunt cases, the anomalous activity is often related to the actual location and not centred on any individual or group of individuals as the potential source(s) of activity [13-14]. This activity may include reports of seeing or hearing things, to which similar occurrences here were given particular attention. While REG data from the *Haunt* session were analyzed for the entire testing period, we also investigated relevant statistics for each time-stamped segment recorded by CT (journalist and psi-sensitive), who was present for the duration of the experiment. A medium (PN) also conducted psychophonic testing, which includes alleged "spirits" speaking through a medium.

As per the directional hypotheses associated with the *Poltergeist* experiment, we similarly anticipated significantly negative deviations would be revealed during the *Haunt* testing. Particular attention was given to the segments during which those present reported anomalous sights and sounds (Table 5).

While the overall trend for the combined testing period, including a number of mundane moments, was in the predicted direction (negative, down), the combined REG cumulative deviation (Figure 9) for the entire experiment was within chance expectations ($N_{events} = 127503$, $z_c = -1.528$, $p > .05$). There were a number of individual test segments which displayed significant excursions from the mean, all of which were in the anticipated direction (negative, down) with the exception of one (Table 5, 22). These included reports of seeing dead people ($N_{events} = 300$, $z_c = -1.715$, $p = .043$), seeing somebody enter the room while hearing voices ($N_{events} = 300$, $z_c = 1.992$, $p = .023$), psychophonic testing within the neighbouring warehouse ($N_{events} = 8100$, $z_c = -1.834$, $p = .033$), and reports of hearing a female voice ($N_{events} = 600$, $z_c = -2.003$, $p = .023$), all of which are shown in Figure 10. Relevant REG statistics for all segments from the *Haunt* experiment are provided in Table 5.

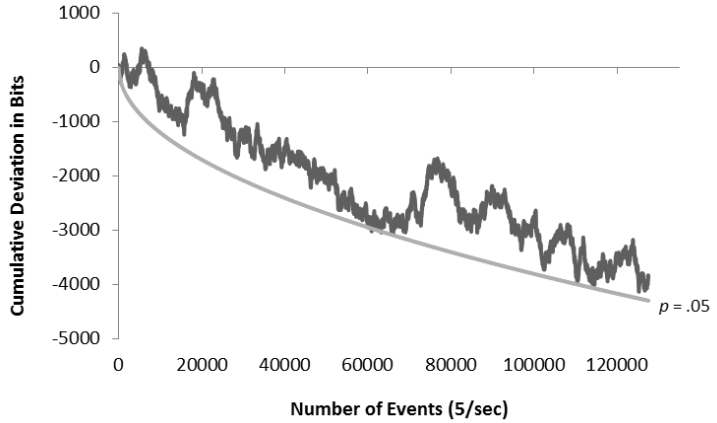

Figure 9. Cumulative deviation in REG data during *Haunt* experiment; grey curve indicates threshold for statistical significance (p = .05)

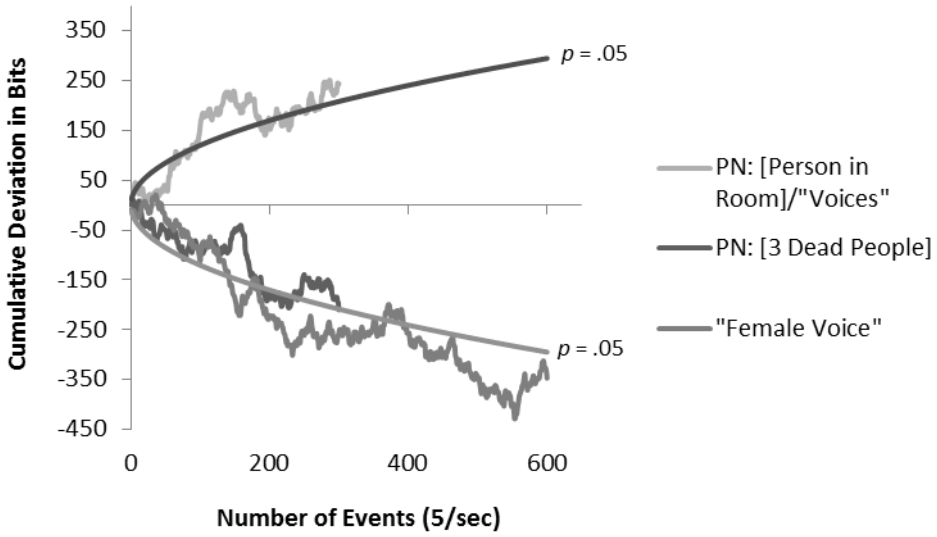

Figure 10. Cumulative deviation in REG data during significant segments from *Haunt* experiment which occurred in association with reports of [seeing] or "hearing" things; grey parabolic curves indicate threshold for statistical significance (p = .05)

Table 5. REG event data for each *Haunt* segment; N = number of REG events, z_c = combined *z*-score, *es* = effect size ($z_c/\sqrt{N}$; equal to mean REG *z*), p = probability (1T) of z_c, σ_μ = measurement uncertainty ($\sigma/\sqrt{2N}$, where $\sigma = \sqrt{50}$); *****significant at $p < .05$ (1T); for Segment titles, " " indicates what was 'heard' while [ ] indicates what was 'seen'

Segment	N	z_c	p	*es*	σ_μ
FULL	127503	-1.528	.063	-.004	.014
1. Start REG	10500	-.894	.186	-.009	.049
2. ['Orbs']	2100	-.253	.4	-.006	.109

3. Mirror Falls	3900	.082	.467	.001	.08
4. Crew Jokes	5100	.353	.362	.005	.07
5. Empty House	15000	-1.284	.1	-.01	.041
6. CT Arrives	5400	-.137	.446	-.002	.068
7. C Arrives	1500	-.132	.448	-.004	.129
8. PN Arrives	9600	-1.09	.138	-.01	.051
9. TV Crew Leaves	3900	-.204	.419	-.003	.08
10. PN: "Man Yelling"	900	-.547	.292	-.018	.167
11. PN: "Voices"	600	.202	.42	.008	.204
12. CT/C: "Noises"	300	-.735	.231	-.042	.289
13. PN: [Woman on Floor]	600	.993	.16	.041	.204
14. PN: "Crying Child"	300	-1.176	.12	-.068	.289
15. CT Change Batteries	600	-.329	.371	-.013	.204
16. PN: Describe Murderer/"Noise"	300	-.065	.474	-.004	.289
17. PN: [3 Dead People] *	**300**	**-1.715**	**.043**	**-.099**	**.289**
18. PN: Tired – Pause	1200	.637	.262	.018	.144
19. PN Uses Glass Ball/"Crying Woman"	300	-.098	.461	-.006	.289
20. Mobile Phone Interruption	300	-.531	.298	-.031	.289
21. PN: [Girl/Blood]	1200	.253	.4	.007	.144
22. PN: [Person in Room]/"Voices" *	**300**	**1.992**	**.023**	**.115**	**.289**
23. PN: [Man Cut]	300	-.139	.445	-.008	.289
24. "Two Men Argue"	600	-.879	.19	-.036	.204
25. PN: "3 Different Stories"	300	.016	.494	.001	.289
26. People Joke	600	-1.57	.058	-.064	.204
27. Move to 'Safe' Room	900	1.179	.119	.039	.167
28. "Female Voice"	300	-.498	.309	-.029	.289
29. Ouija Talk/"Voice" on Recorder	1800	-.297	.383	-.007	.118
30. Ouija: Name is Adela	2400	1.64	.051	.034	.102
31. Feel Cold	300	.783	.217	.045	.289
32. Psychophonic Test in Warehouse *	**8100**	**-1.834**	**.033**	**-.02**	**.056**
33. "Noises"	600	.751	.226	.031	.204
34. "Voices"	900	.83	.203	.028	.167
35. "Noises"	4500	.725	.234	.011	.075
36. Psychophonic Test II in Bathroom PN Leaves	1500	-.705	.241	-.018	.129
37. "Noise/Voice"	900	.047	.481	.002	.167
38. Enter Bedroom	2100	.2	.421	.004	.109
39. Enter Living Room	5400	-1.297	.097	-.018	.068
40. "Male Voice/Child Scream"	1200	.265	.396	.008	.144
41. "Female Voice"	600	1.01	.156	.041	.204
42. Enter Children's Bedroom	7200	-.402	.344	-.005	.059
43. "Male Voice: Threat"	600	-.456	.324	-.019	.204
44. Enter Second Bedroom	2400	-1.167	.122	-.024	.102
45. "Female Voice" *	**600**	**-2.003**	**.023**	**-.082**	**.204**
46. Enter Gymnasium	1800	1.11	.134	.026	.118

47. "Child Voice"	600	-1.022	.153	-.042	.204
48. Ending of Session	7200	.548	.292	.007	.059
49. Everyone Leaves	7403	-.714	.238	-.008	.058

3.4. Combined Results for Poltergeist and Haunt Cases

Given the overt thematic link between the *Poltergeist* and *Haunt* cases (e.g., strong association with "ghosts" or "spirits", object movement, anomalous subjective experiences, etc.), we pursued further exploration of these experiments in combination. REG output from each test period was combined in order to compute relevant statistics (Figure 11), which revealed a significant deviation in the overall data (N_{events} = 170495, z_c = -2.201, p = .014, es = -.005, σ_μ = .012). Finally, the results further enhanced the support given to the directional expectations of subjectively negative emotional contexts and the FieldREG phenomenon.

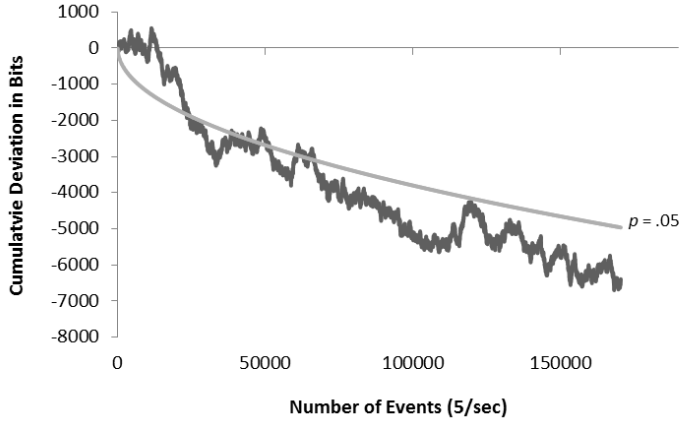

Figure 11. Cumulative deviation in REG data for combined *Poltergeist* and *Haunt* experiment; grey curve indicates threshold for statistical significance (p = .05)

3.5. Small Disaster Site

We have now investigated a range of varied settings with regard to associated REG activity, including both negative and positive group emotions, novel and mundane group environments, fear, and physical pain [12], while expanding on these results with those obtained from the *Convent*, *Poltergeist*, and *Haunt* experiments. However, analysis of data obtained from a smaller-scale, isolated structural disaster without associated loss of human life has yet to be examined in an exploratory FieldREG context.

We hypothesized little if any potential effects would be observed within the collected data given the highly localized and less subjectively novel historical event associated with this site. While we did not expect to find significant results for this experiment, we felt it necessary to be as wide-ranging and thorough as possible in our current series of investigations exploring a number of varied environments.

As anticipated, the REG output obtained from the *Small Disaster Site* overall test period showed results very similar to baseline measures (Figure 12), while all individual test segments, completed at both the front and rear of the building (Table 6), revealed similarly non-significant results (*p*s > .05).

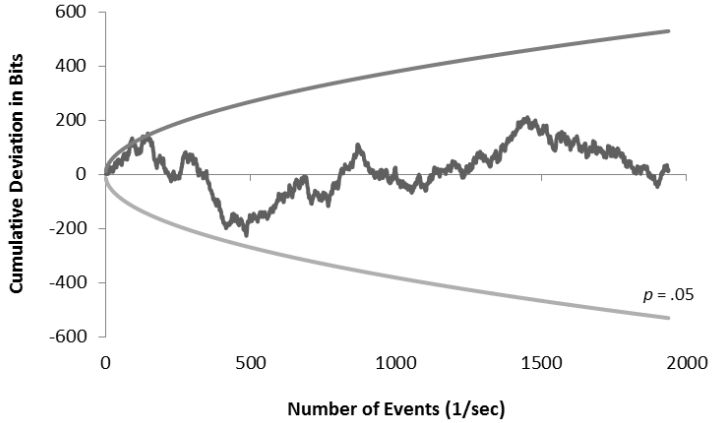

Figure 12. Cumulative deviation in REG data during *Small Disaster Site* experiment; grey parabolic curves indicate threshold for statistical significance ($p = .05$)

Table 6. REG event data for each *Small Disaster Site* segment; N = number of events, z_c = combined *z*-score, *es* = effect size ($z_c/\sqrt{N}$; equal to mean REG *z*), *p* = probability (1T) of z_c, σ_μ = measurement uncertainty ($\sigma/\sqrt{2N}$, where $\sigma = \sqrt{50}$); *****significant at $p < .05$ (1T)

Segment	N	z_c	*p*	*es*	σ_μ
FULL	1937	.058	.477	.001	.114
1. Front of Building	645	-.373	.355	-.015	.197
2. Back of Building	626	.729	.233	.029	.2
3. Back of Building II	666	-.241	.405	-.009	.194

4. Discussion

The preceding results provide a moderate degree of support for previous research in this specific area of exploration [10-12]. However, the activities and contexts examined in the current study were generally quite different from those previously examined. This was particularly the case for the *Poltergeist* and *Haunt* experiments, both of which provided interesting results.

The first reported experiment, the *Convent*, while the most thematically similar to a number of situations we had previously investigated [12], also revealed results which were particularly difficult to interpret. Although an exploratory study, the findings obtained from the nuns' enclosure were both inconsistent regarding their daily occurrence, or lack thereof, and at times were in contrast to our initial FieldREG investigations regarding the directional component of

REG output in the presence of specific subjective emotional contexts [12]. However, exploratory interpretation of the results will be discussed.

Disregarding the sporadic violation of our pre-stated emotional valence hypothesis, the inconsistency of the results, while still of potential interest, made construction of an overall hypothesis difficult for this experiment. Results from the first full day of continuous data collection were particularly intriguing despite the occurrence of each significant REG deviation being associated with time periods of no activity. Of specific interest regarding this finding was the fact that each of these periods of anomalous REG output associated with times of no activity in the local human environment directly followed extended periods of prayer. An initial suggestion was that the spiritual activity of the nuns could have introduced a residual affecting agent or subtle energy which displayed a lagged effect in the data. While this idea may appear farfetched, it is consistent with contemporary literature regarding traditional and alternative medicine and energy healing [25].

However, it was also noted that this apparent effect was not consistent over the course of several days of testing. In reality, the second full day of data collection did not display any significant REG deviations. While this could potentially be attributed to some form of novelty effect [12], significant results were found for subsequent days of testing. While a number of additional periods of no activity were found to be statistically significant, these were consistently preceded by times of prayer or readings from Psalms, as found for the first day. Additionally, there were a number of periods of prayer and reading from Psalms which presented with significant REG deviations, with a single period of significance found during group singing. While intriguing in an exploratory capacity, these findings often varied with regard to the overall directional component of the data (e.g., more positive values vs. more negative values), further confounding an overall interpretation of the results.

A number of questions have been considered following analysis of these findings; could it be that more consistent and stronger overall results were obtained on the first day due to the nuns' apparent motivation regarding the experiment? Did their collective "intentions" in the context of the experiment diminish prior to the second day? Of course, these considerations require further experiments to make any concrete conclusions. However, it could also have been that other psychological variables contributed to the sporadic and inconsistent *Convent* results, which is also consistent with previous theories in this area [26]. At this preliminary stage of investigation, it cannot be discounted that variable mood among members of the convent could have affected the overall outcome observed. Again, further investigation of this specific FieldREG context is required to begin addressing these questions.

Another possible consideration for the *Convent* results directly relates to the *Poltergeist* experimental findings; do prayer and other religious activities serve as a potential means of "normalizing" the immediate environment, and could this account for the apparent data anomalies observed during periods of no activity which followed prayer? It is particularly interesting to note that the isolated time period of independent statistical significance in the *Poltergeist* case followed the foci of the phenomenon (e.g., the family) vacating the premises. Perhaps specific types of activity, not limited to the nuns' prayers, are capable of introducing an unknown environmental change in the immediate vicinity which becomes disrupted upon a subsequent absence of the apparent source.

Regardless of this preliminary hypothesis, the overall findings for the *Poltergeist* experiment generally supported our initial theory of emotional valence and the FieldREG phenomenon. Overall results from this experiment were both statistically significant and consistent with the anticipated direction of REG deviation (negative). This could support the contention that subjectively negative emotions and activities are more often associated with negative trends in REG output. However, this specific case also examined a context which has largely been ignored in the previous FieldREG literature [10-12]. As such, the *Poltergeist* results obtained here might further support the previously discussed "recurrent-spontaneous psychokinesis" (RSPK) model of the poltergeist phenomenon, and provide an interesting new avenue of potential research for further FieldREG explorations.

Given that cases of alleged haunts have not typically been associated with the RSPK model of paranormal phenomena previously noted, the *Haunt* experiment was particularly interesting and novel in this context. This period of testing allowed us to explore the thematic link between poltergeists and haunt reports as a potential factor in the apparent FieldREG phenomenon, considering the generally lacking theoretical and experimental associations between haunt activity and mind-matter interactions or 3C. Current results appear to provide preliminary abstract support to the implied notion of thematic similarity between poltergeists and haunt cases. Furthermore, these results were generally consistent with our initial hypotheses regarding the overall directional component of this experiment given the negative overall REG trend observed.

A number of *Haunt* segments were revealed to be independently statistically significant. These periods were typically associated with reports of seeing or hearing things in the area, as per our initial hypotheses, with an individual segment of psychophonic testing by the on-site medium also displaying a significant REG deviation. Furthermore, all of these segments supported the emotional valence theory of FieldREG processes, showing overall negative trends in the data, with a single exception of positive deviation occurring when the medium had reported seeing somebody enter the room while hearing voices.

As anticipated, the *Small Disaster Site* data output obtained from the grounds of St. Raphael's Ruins displayed baseline REG activity. While the previous *Convent* and *Poltergeist* experiments might imply some form of residual influence on the random stream of data produced by the device, as evidenced by the conspicuous lagged effects, this particular experiment suggests that there could be a "window of opportunity" with regard to these hypothesized latent effects. While the subjectively negative emotions attached to the event which historically took place at this site may have been particularly strong, the REG output conformed to expectations associated with areas devoid of recent human influence.

While these hypotheses and suggestions are preliminary and exploratory in nature, results of the current experiments further suggest that future research is required to probe the seemingly complicated nature of apparent FieldREG effects. Furthermore, given the recent lack of FieldREG investigations conducted by other researchers in this area, we hope to stimulate a renewed interest in potential effects of group consciousness on the behavior of random physical systems.

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Appendix

Table A. REG event data for each *Convent [Day 2]* segment; N = number of REG events, z_c = combined *z*-score, *es* = effect size ($z_c/\sqrt{N}$; equal to mean REG *z*), *p* = probability (1T) of z_c, σ_μ = measurement uncertainty ($\sigma/\sqrt{2N}$, where $\sigma = \sqrt{50}$)

Segment	N	z_c	*p*	*es*	σ_μ
FULL	432016	-.12	.452	< -.001	.008
1. No Activity	126000	.365	.358	.001	.014
2. Prayer	27001	-.535	.296	-.003	.03
3. No Activity	27001	.715	.237	.004	.03
4. Mass	13501	-.063	.475	-.001	.043
5. No Activity	4501	-1.062	.144	-.016	.075
6. One Elderly Nun Prays	18001	-.404	.343	-.003	.037
7. No Activity	13501	-1.631	.052	-.014	.043
8. Psalms	4501	.833	.203	.012	.075
9. No Activity	33001	-.048	.481	< -.001	.028
10. Singing	3001	.666	.253	.012	.091
11. Varied	18001	.24	.405	.002	.037
12. Prayer	4501	-.413	.34	-.006	.075
13. No Activity	49501	-.518	.302	-.002	.023
14. Pray/Psalms	27001	-.905	.183	-.006	.03
15. No Activity	31501	.009	.497	< .001	.028
16. Psalms/Lectures/Rosary	22501	.658	.255	.004	.033
17. No Activity	9001	.47	.319	.005	.053

Table B. REG event data for each *Convent [Day 4]* segment; N = number of REG events, z_c = combined *z*-score, *es* = effect size ($z_c/\sqrt{N}$; equal to mean REG *z*), *p* = probability (1T) of z_c, σ_μ = measurement uncertainty ($\sigma/\sqrt{2N}$, where $\sigma = \sqrt{50}$); *****significant at $p < .05$ (1T), † Psalms segment preceding significant No Activity segment

Segment	N	z_c	*p*	*es*	σ_μ
FULL	432016	-.129	.449	< -.001	.008
1. No Activity	126000	-.298	.383	-.001	.014
2. Prayer	27001	.409	.341	.003	.03
3. No Activity	27001	.544	.293	.003	.03
4. Mass	13501	.441	.33	.004	.043
5. No Activity	4501	-.002	.5	< -.001	.075
6. One Elderly Nun Prays	18001	.306	.38	.002	.037
7. No Activity	13501	.566	.286	.005	.043
8. Psalms †	4501	.034	.487	.001	.075
9. No Activity *	**33001**	**-2.21**	**.014**	**-.012**	**.028**

10. Singing *	**3001**	**1.957**	**.025**	**.036**	**.091**
11. Varied	18001	-.967	.167	-.007	.037
12. Prayer	4501	-.831	.203	-.012	.075
13. No Activity	49501	-.37	.356	-.002	.023
14. Pray/Psalms	27001	-.448	.327	-.003	.03
15. No Activity	31501	.27	.394	.002	.028
16. Psalms/Lectures/Rosary	22501	-1.437	.075	-.01	.033
17. No Activity	9001	.139	.445	.002	.053

Table C. REG event data for each *Convent [Day 5]* segment; N = number of REG events, z_c = combined *z*-score, *es* = effect size ($z_c/\sqrt{N}$; equal to mean REG *z*), *p* = probability (1T) of z_c, σ_μ = measurement uncertainty ($\sigma/\sqrt{2N}$, where $\sigma = \sqrt{50}$); *****significant at $p < .05$

Segment	N	z_c	*p*	*es*	σ_μ
FULL	432016	.637	.262	.001	.008
1. No Activity	126000	.545	.293	.002	.014
2. Prayer *	**27001**	**1.929**	**.027**	**.012**	**.03**
3. No Activity	27001	.775	.219	.005	.03
4. Mass	13501	.635	.263	.006	.043
5. No Activity	4501	.565	.286	.008	.075
6. One Elderly Nun Prays	18001	-.443	.329	-.003	.037
7. No Activity	13501	.64	.261	.006	.043
8. Psalms	4501	-.831	.203	-.012	.075
9. No Activity	33001	-1.366	.086	-.008	.028
10. Singing	3001	-.754	.226	-.014	.091
11. Varied	18001	-.78	.218	-.006	.037
12. Prayer	4501	-.103	.459	-.002	.075
13. No Activity	49501	1.589	.056	.007	.023
14. Pray/Psalms	27001	.551	.291	.003	.03
15. No Activity	31501	.687	.246	.004	.028
16. Psalms/Lectures/Rosary	22501	-.199	.421	-.001	.033
17. No Activity	9001	1.47	.071	.016	.053