RESPONSE

The Global Consciousness Project, Identifying the Source of the Psi: A Response to Nelson and Bancel

EDWIN C. MAY

Laboratories for Fundamental Research, 330 Cowper Street, Palo Alto, CA 94301 USA may@LFR.ORG

S. James P. Spottiswoode

9824 Charleville Blvd., Beverly Hills, CA90212 USA James.Spottiswoode@jsasoc.com

First of all we want to express our thanks to the Journal for allowing us to have the "last" word. We put last in quotes because the very good news about this exchange is that the discussion will undoubtedly continue. While it might be possible to respond point by point to Nelson and Bancel's remarks, we prefer to focus on serious points of disagreement. We will comment upon their responses separately. Before we begin, it is important to recognize that while our interpretations differ, there are large areas of overlap in our thinking.

Response to Roger Nelson

Nelson has documented that the GCP arose from PEAR's field-RNG studies; yet the GCP represents a major conceptual change from the field-RNG studies. One of the differences is that the dependent variable in field-REG studies is a mean shift in the sampling distributions and the effect sizes are consistent with much of the laboratory-based RNG database of that time (Nelson, Bradish, Dobyns, Dunne, & Jahn, 1996). While it is true that field-RNG studies differ from laboratory studies because of the lack of volitional involvement, to generalize that argument to somehow isolate the GCP results as something fundamentally different from laboratory studies is logically incorrect in that it makes psychological assumptions of the process which, at best, are premature. There are examples of studies with "hidden" RNGs (i.e. the participant is unaware of a second RNG in the equipment) that produced significant changes in the mean of the hidden RNG (Varvoglis & McCarthy, 1986). Thus, Nelson's point that the lack of volition means removing forces from the discussion does not follow.

One lesson we have learned from our exchange is that our early thinking on Decision Augmentation Theory (DAT) was very limited mainly because of the RNG zeitgeist of the day of a force per bit model, as we document in our article in this issue of this *Journal*. The DAT analysis shown is completely insensitive to any forces that may be symmetrical about zero or in cases where there is no force at all. However, the main idea behind DAT is equivalent to experimenter psi; that is, experimenters (or agents acting like experimenters) make psi-mediated choices to affect the outcome. Of course, this is not a new idea (Stanford, Zenhausern, Taylor, & Dwyer, 1975).

We believe Nelson is splitting hairs with regard to their published hypothesis with regard to the GCP when he claims "We also do not claim, as they [May & Spottiswoode] assert, that global consciousness is the source of the anomalous effects, rather, we use an operational definition of the object of study." In our rebuttal, we offer two points taken from Bancel and Nelson (2008) and the GCP website, respectively:

Periods of collective emotional or attentional behavior in widely distributed populations will correlate with deviations from expectation in a global network of RNGs.

When human consciousness becomes coherent and synchronized, the behavior of random systems may change. Quantum event based random number generators (RNGs) produce completely unpredictable sequences of zeroes and ones. But when a great event synchronizes the feelings of millions of people, our network of RNGs becomes subtly structured. The probability is less than one in a billion that the effect is due to chance. The evidence suggests an emerging noosphere, or the unifying field of consciousness described by sages in all cultures.

To us, the paragraph from the GCP website seems to be the quintessential definition of global consciousness.

Nelson implies that we fail to understand the GCP hypothesis (to which we plead guilty) because we are concerned that the "time" of the event is vague. From our perspective this project has been in a continuing state of exploration and we think this is the case, at least in part, because addressing whether the people who are actually involved in, say a natural disaster, or the people worldwide who later see the disaster on television are somehow related to the variance of the networks RNGs is the goal of the GCP project. Or even peaks that in the variance occur *before* the event which requires a precognitive description. It seems to us these considerations are not trivial.

This brings us to our major criticism of Nelson's defense. Claiming that the GCP is only about correlations does not absolve him of a responsibility to untangle the pressing correlation issues we raised in our original paper. Without belaboring the point, we quote from our paper:

As we all have learned in our statistics courses, correlation does not necessarily imply a causal relationship between the variables. Hypothesis two above [correlation hypothesis] also bifurcates. Either human/natural events magically happen on the average only during times of locally deviant, but expected, excursions of the RNGs or vice versa. Even though there does not have to be a causal relation for this correlation to arise, we are obligated to search for a third (or more) variable(s) that give rise to the correlation. In many cases, an external (to the primary correlative variables) variable is difficult or impossible to identify.

Correlations are not magical. Somewhere in the variable chain there is a causal relationship. We find both of the correlation cases we outlined above as substantially implausible especially given the often-observed psi-mediated experimenter effects, which might be sufficient to explain the observables.

Nelson appears to have changed the definition of the "Hypothesis Source"—the GCP's words, not ours. Part of his argument against Nelson being the source of the psi rests upon his self-proclaimed modest abilities in laboratory RNG studies. We find that argument to be not apropos. Our claim is that Nelson's psi is not involved in the RNGs at all; rather it arises in the selection of what events get counted in the GCP formal database and which do not.

Finally, if Nelson is correct in his redefinition of the column heading (i.e. Hypothesis Source) used to define the chooser of GCP events, then he opens the door for further theoretical musing and experimenter-effect analysis. We arrive at the notion that the GCP has nothing to do with the people on our planet in general not only because of our analysis of Nelson versus the rest of the contributors but also because of the questionable correlational arguments we illustrate above.

Response to Peter Bancel

The vast majority of Bancel's response is a mathematical and technical refutation of our DAT analysis. Both in our primary paper and in our comments above, we stipulate that DAT does not enter into the RNGs at all if the effects, as claimed by the GCP, are correlational or if the effects arise because of an exactly symmetric force. Rather, thinking of DAT as equivalent to a psimediated experimenter effect as does Robert Rosenthal¹, then as we illustrated extensively above the psi-mediated experimenter effect may enter into the system at the event-selection level, which renders arguments with regard to variables for any z^2 versus number of eggs moot. Bancel notes that the events

are selected by a blind procedure and thus, by implication, are not subjected to DAT. This is simply factually incorrect and flies in the face of most all of the psi literature in which psi happens under double blind and sometimes even more layers of blindness. The event selector could be a major psi contributor to the successful outcome of the GCP.

Conclusion

If Nelson is accurate in his description of the meaning of the "Hypothesis Source," then clearly there is more work to be done to definitively identify the source of the psi in the GCP. However, it is clear to us that global consciousness however defined is not a contributor to the observables. We look forward to working with Bancel with regard to extending our DAT analysis by incorporating his correlational variable insight.

There is, however, one simple thing that can be done from this point forward that would go a long way to answer the questions raised in our debate. Rather than posting the GCP data for every second, post only, say, the even-numbered seconds. Then data snoopers and data-mining programs can be unleashed with impunity to isolate events that show significant correlations. Among the things we have stipulated is the excellence of the RNG hardware, which means the autocorrelation of non-zero lags is statistically zero. In simple language this means that the data from second to second are independent of each other under the null hypothesis of no effects. When the data mining produces a significant effect on the even-numbered seconds, it must also be seen nearly exactly on the odd-numbered seconds which now act as a formal "within session" control.² Any causal or correlational effects should replicate on a second-by-second basis.

Notes

- ¹ Private communication.
- ² We thank Professor Richard Broughton for first suggesting this to us.

References

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