

COMMENTARY

Beyond the BICS Essay Contest: Envisioning a More Rigorous Preregistered Survival Study

Etienne P. LeBel

Keith Augustine

Adam J. Rock

SUBMITTED July 6, 2022
ACCEPTED July 10, 2022
PUBLISHED August 22, 2022

<https://doi.org/10.31275/20222691>

PLATINUM OPEN ACCESS



Creative Commons License 4.0.
CC-BY-NC. Attribution required.
No Commercial use.

HIGHLIGHTS

Working from common assumptions in parapsychology, a group of survival skeptics and an agnostic jointly propose an experiment that is more rigorous than typically used. A successful result here would give compelling evidence consistent with “life after death.”

ABSTRACT

Prior experimental studies of anomalous information reception (AIR) have been touted as strong evidence for postmortem survival of consciousness yet are plagued by several methodological weaknesses that preclude clear evidence of positive results. The present team provides an adversarial collaboration to identify and compensate for the major limitations of these previous approaches. We outline a more rigorous preregistered study design that eliminates or minimizes researcher bias in (a) data cleaning and (b) statistical analysis. Obtaining positive results with our recommended design would arguably yield data that skeptics and sympathetic researchers would agree is more clearly interpretable and offers stronger support for a survivalist interpretation. However, this proposed study is not intended to be definitive but rather only a next step in a research program that aims to improve on earlier published efforts. It would also admittedly be time-consuming and expensive to implement, as well as raise ethical considerations in utilizing vulnerable research populations. However, these costs are required to achieve the rigor necessary to advance scientific knowledge in survival research.

KEYWORDS

Anomalous information reception; content–source problem; discarnate; living agent psi; mediumship; postmortem survival

Introduction

Although the preceding exchange in this special subsection of the *Journal* (Augustine, 2022a, 2022b; Braude et al., 2022) has highlighted the differences between skeptics and proponents of discarnate personal survival, there is much more in common between us that often goes unsaid, such as a common respect for sound reasoning and for investigating matters empirically whenever possible. We also agree that this topic warrants further empirical investigation, and of a quality superior to that found in the extant survival literature. While we could further delineate our similarities and differences, a more fruitful avenue for

research is to collaborate on a design for an “ideal” prospective test of *potential* survival that, if successful and replicable, would complement and corroborate previous attempts at rigorous experimental survival research.

Working with Braude et al.’s (2022) team of survival proponents would have been optimal, but given time and logistical constraints, we have alternatively joined forces with the last author, who has published several methodological papers in this domain from an agnostic perspective (e.g., Jamieson & Rock, 2014; Rock & Storm, 2015). By developing some of the proponents’ own published proposals, we have agreed on an experimental design that would provide substantiating evidence consistent with an



anomalous effect by shielding any attainable replicable positive results, as much as feasibly possible, from normal or conventional explanations. Such explanations run the gamut from simple cueing to researcher degrees of freedom or p-hacking, i.e., researchers inadvertently or deliberately collecting or selecting data or analyses until nonsignificant results are rendered statistically significant (Head et al., 2015).

Given the difficulties attending attempts to discern the source of any putative psi effects that might emerge from implementing the present design, our proposal aims only to test for effects consistent with Anomalous Information Reception (AIR). Whether or not any potential evidence of AIR obtained through it would also constitute evidence of discarnate personal survival is an independent question requiring a separate discussion (see the Appendix). This protocol is simply a pragmatic first step, and if it becomes warranted, a catalyst for further experimental survival-related research. Moreover, while the protocol outlined here does not improve upon every aspect of previous AIR research designs, if successful, it would provide strong convergent validity¹ of an AIR effect. Indeed, using mixed or multiple methods to study a phenomenon is proposed to produce results that are more robust and compelling than single-method studies (see e.g., Morse, 2003).

This paper thus does not close the exchanges between Augustine (2022a, 2022b) and Braude et al. (2022) in this special subsection with a polite but feeble statement to the effect that the disputants simply “agree to disagree.” Rather, we present an adversarial collaboration that favors practical next steps over endless conceptual debates. Despite our different takes on the current state of the survival evidence, the present team of survival skeptics [EL & KA] and survival agnostics [AJR] concur that (a) the presence of anomalous/paranormal information or influence among phenomena potentially indicative of discarnate personal survival is amenable to experimental testing and (b) such testing must meet the most rigorous evidential standards possible so that any phenomena potentially indicative of discarnate personal survival cannot be reasonably explained in exclusively conventional or normal terms.

Accordingly, we outline below the parameters of a proposed series of studies that, if successful and replicable, would satisfy the present collaborators of the presence of an effect consistent with AIR among phenomena potentially indicative of discarnate personal survival.² Thus our recommended research design aims to fulfill the spirit of the Bigelow Institute for Consciousness Studies (BICS) essay competition by offering one approach to seeking what would provide significantly better evidence than that currently heralded for the idea of postmortem survival of human consciousness.

Laying a Working Foundation

There is growing interest in survival research to use the more rigorous standards that have emerged from the global open science movement.³ One such approach is preregistration, which is a method to increase research transparency by documenting research decisions on a public, third-party repository prior to data collection. If done correctly, preregistration can prevent the cherry-picking of analyses and/or data transformations/cleaning choices that yield more desirable results, a behavior known as “p-hacking” (Simmons et al., 2020; see also Moore, 2016). Given that such behaviors are often done *unintentionally*, we prefer framing the key benefit of preregistration as reducing the number of “researcher degrees of freedom” that could unintentionally or intentionally be exploited to achieve spurious positive—or more desirable—results.

Public preregistration, however, can only achieve such goals if a preregistered protocol contains sufficient details regarding how a study will be conducted and how data will be cleaned and statistically analyzed (Claesen et al., 2021).⁴ But even with preregistration, one must be careful because researchers could still cherry-pick evidence from a specific *subset* of preregistered studies within a larger set of preregistered studies (see Laitin et al., 2021). To avoid this problem, we need:

1. All involved researchers’ pledge to abide by principles of research integrity/honesty (e.g., the Netherlands Code of Conduct for Research Integrity [NOW, 2018]).
2. All studies meet minimum transparency standards (e.g., disclosing all financial and nonfinancial conflicts of interest, meeting methodological reporting standards, open materials, and open data) so that proper scrutiny of results can be independently checked.

Even then, obtaining a preregistered (and independently) replicable effect is just a minimum requirement for the *perpetual activity* of investigating the generalizability and validity of a (replicable) effect (LeBel et al., 2017; Simmons et al., 2020). Such activities help to establish that one is dealing with a genuine phenomenon rather than just measurement artifacts or method-related artifacts (for example, replicable effects across improved measurement techniques, domains, and approaches to studying a phenomenon). In contrast, if a small replicable effect is observed in only one domain/approach (out of dozens/hundreds—e.g., the 10 proposed survival experiments listed in Delorme et al. (2021*, pp. 26–28)—then this would cast doubt on the validity of the supposed anomalous/paranormal nature of the broader phenomena ostensibly favoring discarnate personal survival.⁵ In these senses, research-

ers must avoid a “checklist” approach to science—i.e., the notion that one’s study meets all of the checkboxes, and hence is trustworthy—which is inconsistent with the spirit of the scientific method. That is, perpetual questioning and ruthless scrutiny, constantly trying to rule out alternative explanations, improving the precision of empirical measurements, and careful calibration of beliefs based on new credible evidence must be maintained.

Indeed, the purpose of the scientific method is to avoid fooling others and ourselves into believing that something is true when it is in fact false (e.g., false positives/Type I errors), or into believing that something is false when it is in fact true (e.g., false negatives/Type II errors). This is achieved via science’s nonoptional requirement of sufficient transparency, which maximizes the likelihood of proving ourselves wrong if we are in fact wrong (i.e., ensuring scientific falsifiability; LeBel et al., 2017). We are the easiest people to fool (Feynman, 1974) because of several cognitive (Nickerson, 1998) and motivational (Kunda, 1990) biases, which can be substantially amplified by outside financial interests and the hyper-competitiveness and perverse incentives found in academia (Edwards & Roy, 2017).

Such scientific principles require that hypotheses are tested and reported with sufficient transparency so that independent researchers can thoroughly and ruthlessly scrutinize the evidence in support of a specific claim. Key dimensions of transparency include:

- *Conflict-of-interest disclosures*: Disclosing all financial and nonfinancial conflicts of interests, including all funding sources and the role of the sponsor in a study design (e.g., LeBel, 2021, §3).
- Sufficient details regarding the experimental setup and materials (*open materials*), so that independent researchers have enough information to find flaws or limitations of the study design and conduct diagnostic independent replications (Glasziou & Chalmers, 2017; LeBel et al., 2017).
- Access to the data (at least a minimal dataset; *open data*), so that researchers can rule out errors and check for fraud (both data falsification and fabrication), but also verify the analytic reproducibility and analytic robustness of reported results (Steege et al., 2016).
- *Public preregistration*, which minimizes the multitude of “researcher degrees of freedom” that may have been unintentionally or intentionally exploited to get positive results (e.g., analytic and design flexibility, or selective file-drawering/cherry-picking of “failed” studies) (Simmons et al., 2020; see also Moore, 2016).

Higher levels of transparency allow for more thorough scrutiny. The more scrutiny a reported effect survives—in-

cluding replication and reanalysis attempts—the better. Then, and only then, can evidence for such an effect can be temporarily considered credible/trustworthy, proportional to the amount and nature of the scrutiny that a reported effect has survived (LeBel et al., 2018; Meehl, 1967, 1978).

Choice of “Survival Effect”

Given the above preamble, we strive here to develop a preregistered protocol of an important ostensible survival effect. We aimed to choose an effect whose study design possesses as many methodological strengths from previous studies as possible, while minimizing the number of design weaknesses of previous approaches. For preregistered study designs, it is also important to choose a design that minimizes unforeseen ambiguities or decisions in data cleaning and statistical analyses.

Mediumship studies appear to be a good candidate in these respects (compared to other approaches exploring near-death experiences or cases of the reincarnation type, which appear much less amenable to testing on demand). For example, Delorme et al.’s (2021*) proposed mediumship experiment is a good start:

Ten people in hospice would be recruited who agreed to contact one or more of five mediums after they passed away. None of those mediums would be aware of this experiment. After each person died, they would request that the mediums contacted the researchers within the next 30 days. Positive results would include at least five mediums contacting the researchers within 30 days for each deceased person, giving that person’s name, and saying that the deceased person told them to contact the researchers. (2021*, p. 27)

With some amendments, this is an ideal basic study design for several reasons: (1) its ease of implementation; (2) the ease of empirical measurement within it; (3) its adaptability to the requirements of preregistration, enhancing interpretability/decreasing its openness to spurious statistically significant results; (4) its representativeness of survival researchers’ (and BICS contest participants’) assessment of which phenomena provide the best extant evidence of discarnate personal survival; and (5) how it serves as a check on the justifiability of the high confidence that survival researchers place on the establishment of the existence of AIR by mediumship research that has been conducted to date.

The nascent concept for this design was taken from one of the primary targets of Augustine (2022a) in the spir-

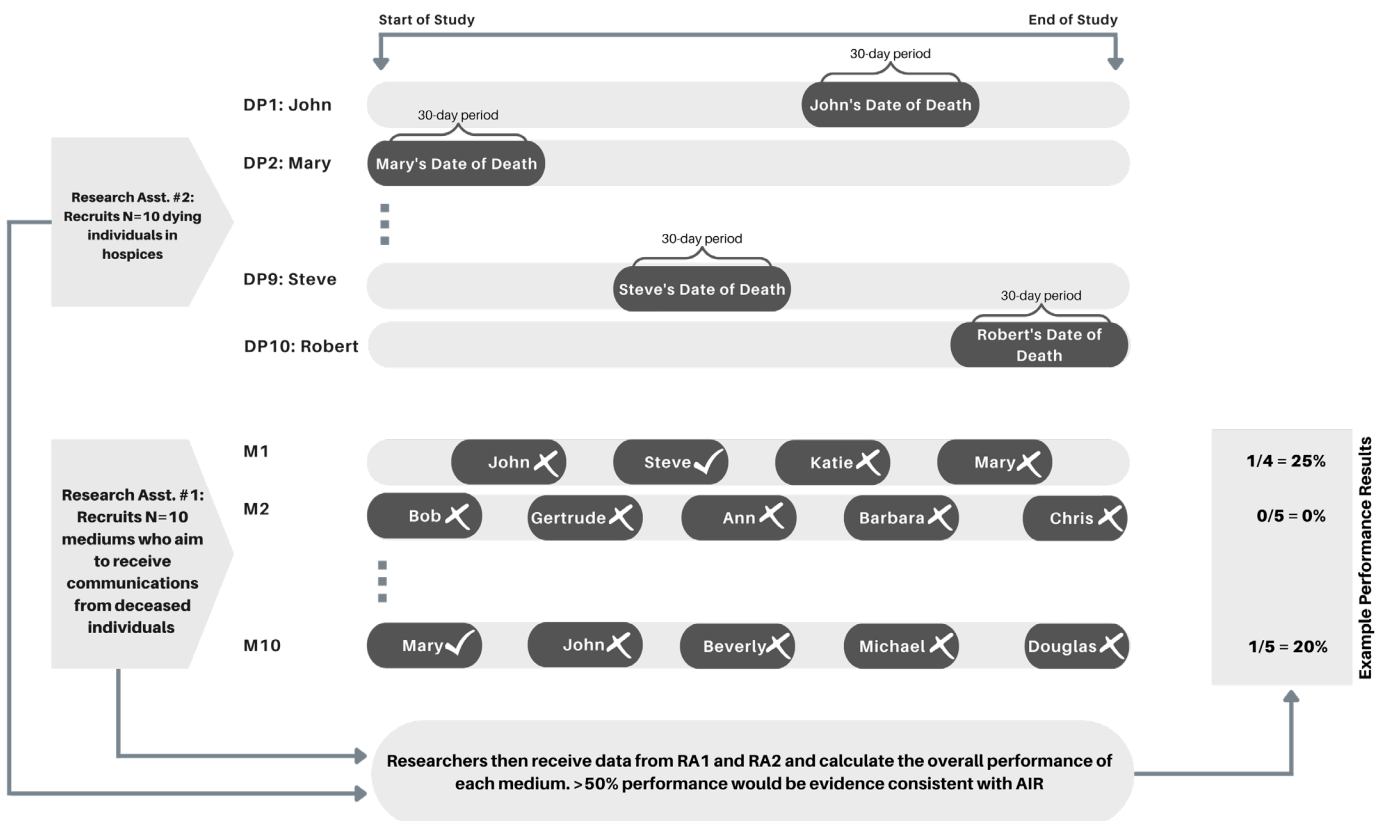
it of collaboration between the participants of the preceding exchange, and between survival skeptics and proponents as a whole. Among the sources of ostensible survival evidence, mental mediumship was selected for multiple reasons. *First*, Julie Beischel has made recent claims—which arguably surpass what the evidence supports⁶—to have proven AIR beyond a reasonable doubt and effectively settled the issue scientifically within both the survival literature and the BICS essay competition (Beischel, 2021*). *Second*, two of the three primary targets (Braude, 2021*; Delorme et al., 2021*) of Augustine’s (2022a) critique independently agreed that mental mediumship provided the best evidence for personal survival compared to other sources of ostensible survival evidence. *Third*, while the remaining primary target (Nahm, 2021*) of Augustine (2022a) reserved that distinction instead for “cases of the reincarnation type” (CORT), then-forthcoming survival research cast significant doubt on that assessment (Sudduth, 2021). *Fourth*, that research has underscored what Braude has since dubbed the *problem of investigative intricacy* for CORT in reaction to a draft of Sudduth (2021), showing that mental mediumship is comparatively much easier to investigate (Braude, 2021*, pp. 31–34). *Fifth*, those two sources

are widely regarded as the two best sources of ostensible survival evidence among psychological researchers as a whole. *Finally*, both sources are more suggestive of both *disparate* and *personal* survival than other potential sources of ostensible survival evidence⁷, where even ideal evidence would not necessarily suggest the persistence of anything *after* death, or anything that retains individual or personal consciousness.

The Recommended Preregistered Protocol

Given that mediumship research into AIR is generally met with skepticism, a preregistered study design is ideal since it maximizes the rigor of such research. Implementing the following study design protocol in Figure 1 (adapted from Delorme et al., 2021*, p. 27) could provide a rigorous and falsifiable empirical test of mediumistic AIR. The protocol aims to be as clear, specific, and detailed as possible, following recommendations by Simmons et al. (2020) and Claesen et al. (2021)⁸:

1. Research assistant (RA) #1 recruits ten⁹ (10) qualified mediums,¹⁰ who are instructed to contact the



Note: DP=deceased person, M=medium, RA = research assistant, AIR = anomalous information reception

Figure 1. Visual diagram of the proposed preregistered survival study (Courtesy: Beth M. Houran).

- RA within 30 days of receiving the putative deceased's communications with the name of any deceased persons who ostensibly communicates with them.
- 1.1. Mediums and RA #1 are blinded to the identity and date of death of the dying/deceased individuals (to prevent bias in classifying correctness of the name of deceased persons as reported by the mediums).
 2. A different RA #2 recruits 10 dying individuals in hospices, instructing them to "contact" one or more of five mediums (of the 10 recruited in step 1 above) after they've passed away (showing them just the name and profile picture of each medium). To test for sheep/goat or psi-conductive/psi-inhibitory participant effects (Storm & Tressoldi, 2017), the *Australian Sheep-Goat Scale* (ASGS) (Thalbourne, 1995; Lange & Thalbourne, 2002) will be administered to the individuals in hospices.
 - 2.1. RA #2 ensures that each dying individual has a unique name.
 - 2.2. RA #2 ensures that the dying person agrees to provide RA #2 with the contact information of a loved one (so that RA #2 can record the date of death of the dying person).
 - 2.3. Dying individuals are blinded from the mediums.
 - 2.4. As an additional control, the two RAs are blinded from each other.
 3. After the death of each dying individual (as notified by the designated loved one to RA #2), RA #2 waits 30 days to see if any of the 5 mediums actually contact the experimenter with the correct name of the deceased person.
 - 3.1. Specific instructions to deal with edge/ambiguous cases: Suppose a medium reports to RA #2 that she received a communication from "John," when in fact the deceased person's name is "Jean." A solution to such ambiguous cases is to be generous in the coding (e.g., "John" and "Johnny" would count as correct; "Rob," "Robert," or "Bob" would count as correct). Alternatively, or in addition, two independent coders could be used, and only names that the two coders agree upon would be used for the primary/secondary analyses.
 - 3.2. As an additional control, the two coders are blinded from each other, and the two RAs are blinded from the identities of the two coders (and vice versa). This level of blinding requires a fifth member of the research team. The fifth member would be the only person who knows the identities of the other four researchers and works with each of those four researchers directly. Furthermore, to test for sheep/goat or psi-conductive/psi-inhibitory experimenter effects (Parker & Millar, 2014), the ASGS will also be administered to all members of the research team.
 4. After all persons have died, researchers tabulate the data (as received independently from RA #1 and RA #2) and calculate the overall performance of each medium in terms of the correctness of the deceased person's name *and* within the correct time period (i.e., *not* prior to a person's death, but also *not after* the 30-day period).
 - 4.1. A medium needs >50% performance to constitute evidence consistent with AIR (a generous threshold).
 - 4.2. Secondary analysis: >50% average performance across all 10 mediums could be considered even stronger evidence consistent with AIR.

Considerations and Caveats

Strengths of Such Protocol:

- **The lack of the need for sitters.** The inclusion of sitters would require an additional level of blinding, may provide an additional source of psi for mediums (i.e., the medium could use LAP to telepathically scan the mind of the sitter rather than communicate with a putative discarnate), may produce sheep/goat sitter effects that would need to be tested, and may encourage drop-in communicators.
- **The lack of the need for time-consuming and difficult codings** of subjective interpretations of readings from mediums (though still a minor issue with edge cases of deceased persons' names—see above).
- **The research design is potentially scalable** across investigators or laboratories for independent replications.

Challenges with Such Protocol:

- **Administrative challenges:** This design would re-

quire ample funding, and would have to successfully address the complexities and sensitivities with Institutional Review Board (IRB) approval of end-of-life and palliative care research, particularly with vulnerable populations (see, e.g., Abernethy et al., 2014; IRB Advisor, 2005).

- **Study duration:** Such a study may take over a year to complete, given the length of time required for all of the participating hospice patients to die.
- **Ecological validity/mundane realism issue:** Arguably, a deceased person may be more inclined/able to communicate with a loved one rather than an unrelated medium whom the deceased has never met (i.e., there are suboptimal conditions in the relationship between the deceased persons and the mediums).
 - But if loved ones are used, then such loved ones cannot be sufficiently “trained” to receive the deceased’s communications (though one might try to provide each loved one with some sort of basic training).
- **Mediums may just submit common names:** One issue that may need to be accounted for is that mediums might actively search for, or subconsciously infer, the most common names for elderly populations in the United States and simply submit such names to the RA.
 - But given the blinding, mediums will *not* know the location/state of the hospices, so this complication is unlikely to help them.
 - “Qualified” mediums are presumed to be ethical and professional, and so should not attempt such trickery, but a design that avoids requiring such an assumption is preferred.
- **Issues that survival proponents may have:**
 - It could be argued that this design requires suboptimal conditions or context in which the medium operates.
 - Likewise, the protocol could potentially induce or involve suboptimal motivation of the medium(s).
 - There are certainly timing-related issues to be considered: 30 days might be deemed too narrow of a window in which to receive ostensible communications from putative discarnates.
 - And most importantly, parapsychologists are expected to argue that the proposed design suffers from the so-called “con-

tent–source problem,” whereby hypothesized psi processes (e.g., precognition or telepathy) cannot be ruled out as alternative explanations for positive evidence consistent with an AIR effect (for an overview and discussion, see Appendix). This issue puts “the cart before the horse,” as arguably no credible and independently replicable evidence exists for such psi effects or confounds. But assuming that credible and replicable evidence is established via a protocol such as the one proposed here, then, and only then, would it logically follow that a preregistered design should aim to rule out putative psi effects as alternative explanations to positive evidence consistent with an AIR effect.

CONCLUDING THOUGHTS

Our preregistered experimental design for investigating AIR among mediums is intended to provide a more rigorous test of the AIR hypothesis than has been conducted to date. This design is more robust because it mitigates researcher bias in (1) data cleaning and (2) the analysis of any findings. The broader goal is to provide the means by which mental-mediumship researchers can improve the quality of the ostensible evidence for the postmortem survival of human consciousness should discarnate personal survival occur.

That said, one should *not* view the results of this or a related study as a definitive *experimentum crucis* test of AIR. Indeed, any such “checklist” approach to science should be avoided at all costs. Progress in this field can only be made by fully embracing the spirit of the scientific process: subjecting hypotheses to perpetual questioning and ruthless scrutiny, constantly striving to rule out alternative explanations, improving the precision of empirical measurements, and carefully calibrating conclusions based on new, credible, and reliable information.

Obtaining stronger evidence consistent with AIR would not, of course, necessarily explain that evidence in terms of living agent psi, discarnate personal survival, or any other parapsychological hypothesis. Nevertheless, it would rationally oblige all parties to acknowledge that a replicable AIR effect might be in need of a new—and potentially disruptive—explanation in other than known conventional terms. The repeated failure to obtain such evidence, on the other hand, would suggest yet another research avenue to avoid pursuing in the future. Of course, to our thinking, the possibility of assembling a growing body

of null results by itself might be telling and should perhaps factor into the scientific calculus.

ACKNOWLEDGMENTS

Competing interests. First author LeBel received a small research grant provided by the Institute for the Study of Anomalous and Religious Experience (ISRAE): <https://www.israenet.org/>. No other research funding was received.

NOTES

- ¹ In scientific measurement, convergent validity refers to the degree to which different tests ostensibly measure the same or similar constructs.
- ² Multiple studies are necessary to distinguish between a method-related artifact and a veritable substantive phenomenon.
- ³ Extant quantitative research often fails to meet such standards, but it does not follow from that failure that less rigorous quantitative research is thereby adequate.
- ⁴ Not all decisions can be prespecified, but archived/time-stamped “standard operating procedures” can be within a preregistered protocol that can aid in these regards (Lin & Green, 2016).
- ⁵ Similarly, if discarnate personal survival was responsible for any replicable positive results obtained from the implementation of this design, then such results should replicate for researchers with a wide range of views on discarnate personal survival (while statistically controlling for “sheep-goat” effects and other potentially “psi-modifying” variables by partialling them out as covariates).
- ⁶ For one, the meta-analytic results regarding mediums’ purported AIR are mixed (see Rock et al., 2021, and Sarraf et al., 2021).
- ⁷ With perhaps the exception of veridical near-death experiences (NDEs) that occurred under controlled conditions and whose veridical “out-of-body” elements can be definitively timestamped to a period of complete brain inactivity—though finding and verifying the existence of such NDEs experimentally may not be feasible in practice.
- ⁸ In the event of an actual empirical test, the protocol may have to be adjusted in minor ways to accommodate any specific geographical or cultural realities.
- ⁹ While a larger number could provide a higher-powered test at the group level, in this case the primary analysis is of the individual-level analysis of each medium. Nevertheless, a secondary dependent variable analysis could

be performed at the aggregate/group level. Either way, the protocol should include sufficiently high statistical power, e.g., >80%, to detect a small AIR effect size (e.g., Cohen’s $d = .20$; Cohen, 1988).

- ¹⁰ The “extensive screening of prospective mediums helps ensure a subject population that is reliable, skilled, trained, dedicated, ethical, and professional” (Beischel & Schwartz, 2007, p. 11). Extant Windbridge Certified Research Mediums (WRC, 2022) might be recruited for this purpose.
- ¹¹ Parts of this sub-section have been adapted from Rock and Storm (2015) with feedback from Augustine, and are used here with permission from the *Journal*.
- ¹² However, we argue that if no capacity limits are stipulated for psi, then both LAP and discarnate personal survival are untestable relative to each other. Hypothetically, whatever the deceased can do, the living can do, and vice versa. Consequently, there is no scientific way to operationally distinguish LAP from survival unless the dead possess psi capacities that the living do not.
- ¹³ It may be argued that once one posits the existence of psi, the number of sources of psi are irrelevant with regard to parsimony. For instance, once one posits the existence of stars, it is not more parsimonious to say that there is only one star rather than many trillions. The leading concept of parsimony in the philosophy of science and epistemology pertains to how many untestable auxiliary assumptions one must posit to account for the data, which speaks more to the number of kinds of things that exist than how many instances of that kind are realized. Consequently, the number of sources of psi may be regarded as irrelevant in this context. Otherwise, all psi between living persons, and psi between the living and the deceased, could be rejected as unparsimonious since there are many instances of living persons and many instances of deceased persons to potentially access, but only one instance of a psychic reservoir.
- ¹⁴ We argue that all the evidence is equally compatible with all of these constructs (e.g., the psychic reservoir, superpsi, LAP). For example, one can interpret clairvoyance as psychic-reservoir-accessing, or remote viewing inanimate signatures, or subconscious telepathy with living or deceased persons, and there is perhaps no method to distinguish between them, except when the living or deceased lack access to information.
- ¹⁵ If the psychic reservoir exists, then it does not necessarily follow that it has an organizing principle. Alternatively, the psychic reservoir itself could be an organizing principle, and one that (like Plato’s realm of forms) is devoid of mentality.

REFERENCES

- Abernethy, A. P., Capell, W. H., Aziz, N. M., Ritchie, C., Prince-Paul, M., Bennett, R. E., & Kutner, J. S. (2014). Ethical conduct of palliative care research: Enhancing communication between investigators and institutional review boards. *Journal of Pain and Symptom Management*, 48, 1211–1221. <https://doi.org/10.1016/j.jpainsymman.2014.05.005>
- Augustine, K. A. (2022a). How ‘not’ to do survival research: Reflections on the Bigelow Institute essay competition. *Journal of Scientific Exploration*, 36(2), 366–398.
- Augustine, K. A. (2022b). Final Reply: When will survival researchers move past defending the indefensible? A final reply to Braude et al. (2022). *Journal of Scientific Exploration*, 36(2), 412–435.
- *Beischel, J. (2021, November 24). Beyond reasonable: Scientific evidence for survival. *Bigelow Institute for Consciousness Studies*. https://www.bigelowinstitute.org/Winning_Essays/Julie_Beischel.pdf
- Beischel, J., & Rock, A. J. (2009). Addressing the survival vs. psi debate through process-focused mediumship research. *Journal of Parapsychology*, 73, 71–90.
- Beischel, J., & Schwartz, G. E. (2007). Anomalous information reception by research mediums demonstrated using a novel triple-blind protocol. *Explore*, 3, 23–27. <https://doi.org/10.1016/j.explore.2006.10.004>
- Braude, S. E. (2003). *Immortal remains: The evidence for life after death*. Rowman & Littlefield.
- Braude, S. E. (2014). The possibility of mediumship: Philosophical considerations. In A. J. Rock (Ed.), *The survival hypothesis: Essays on mediumship* (pp. 21–39). McFarland.
- *Braude, S. E. (2021b, November 24). A rational guide to the best evidence of postmortem survival. *Bigelow Institute for Consciousness Studies*. https://www.bigelowinstitute.org/Winning_Essays/Stephen_Braude.pdf
- Braude, S. E., (2022). ‘Not’ so fast: A response to Augustine’s critique of the BICS essay contest. *Journal of Scientific Exploration*, 36(2), 399–411.
- Caputo, G. B., Lynn, S. J., & Houran, J. (2021). Mirror and eye gazing: An integrative review of induced altered and anomalous experiences. *Imagination, Cognition, and Personality*, 40, 418–457. <https://doi.org/10.1177/0276236620969632>
- Claesen, A., Gomes, S., Tuerlinckx, F., & Vanpaemel, W. (2021). Comparing dream to reality: An assessment of adherence of the first generation of preregistered studies. *Royal Society Open Science*, 8, Article 211037. <https://doi.org/10.1098/rsos.211037>
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum.
- Cunningham, P. F. (2012). The content-source problem in modern mediumship research. *Journal of Parapsychology*, 76, 295–319.
- *Delorme, A., Radin, D., & Wahbeh, H. (2021, November 24). Advancing the evidence for survival of consciousness. *Bigelow Institute for Consciousness Studies*. https://www.bigelowinstitute.org/Winning_Essays/3_Dean_Radin_et_al.pdf
- Edwards, M. A., & Roy, S. (2017). Academic research in the 21st century: Maintaining scientific integrity in a climate of perverse incentives and hypercompetition. *Environmental Engineering Science*, 34, 51–61. <https://doi.org/10.1089/ees.2016.0223>
- Feynman, R. P. (1974). Cargo cult science. *Engineering and Science*, 37, 10–13.
- Fontana, D. (2005). *Is there an afterlife? A comprehensive overview of the evidence*. National Book Network.
- Gauld, A. (1982). *Mediumship and survival: A century of investigations*. Academy Chicago.
- Glasziou, P. A., & Chalmers, I. (2017, March 20). Ill informed replications will increase our avoidable waste of research. *The BMJ Opinion* [British Medical Journal blog]. <https://blogs.bmj.com/bmj/2017/03/20/ill-informed-replications-will-increase-our-avoidable-waste-of-research/>
- Head, M. L., Holman, L., Lanfear, R., Kahn, A. T., & Jennions, M. D. (2015). The extent and consequences of p-hacking in science. *PLoS Biology*, 13, Article e1002106. <https://doi.org/10.1371/journal.pbio.1002106>
- IRB Advisor (2005, Nov 1). End-of-life research: IRBs queasy about studies with dying patients [blog entry]. Relias Media. Accessed 28 June 2022 at: <https://www.reliasmedia.com/articles/82524-end-of-life-research-irbs-queasy-about-studies-with-dying-patients>
- Irwin, H. J. (2002). Is scientific investigation of postmortem survival an anachronism?: The demise of the survival hypothesis. *Australian Journal of Parapsychology*, 2, 19–27.
- Jamieson, G. A., & Rock, A. J. (2014). A systems level neuroscience approach to mediumship and the source of psi problem. In A. J. Rock (Ed.), *The survival hypothesis: Essays on mediumship* (pp. 235–253). McFarland.
- Keen, M. (2003). The demise of the survival hypothesis, or the errors of Harvey Irwin? *Australian Journal of Parapsychology*, 3, 36–42.
- Kunda, Z. (1990). The case for motivated reasoning. *Psychological Bulletin*, 108, 480–498. <https://doi.org/10.1037/0033-2909.108.3.480>
- Laitin, D. D., Miguel, E., Alrababa’h, A., Bogdanoski, A., Grant, S., Hoerberling, K., Hyunjung Mo, C., Moore, D. A., Vazire, S., Weinstein, J., & Williamson, S. (2021). Reporting all results efficiently: A RARE proposal to open up the file



- drawer. *Proceedings of the National Academy of Sciences of the United States of America*, 118, Article e2106178118. <https://doi.org/10.1073/pnas.2106178118>
- Lange, R., & Thalbourne, M. A. (2002). Rasch scaling paranormal belief and experience: Structure and semantics of Thalbourne's Australian Sheep-Goat Scale. *Psychological Reports*, 91, 1065–1073. <https://doi.org/10.2466/pr0.2002.91.3f.1065>
- LeBel, E. (2021, April 30). Transparency audits for science. <https://etiennelabel.com/cs/t-leaderboard/t-leaderboard.html#t-requirements-details>
- LeBel, E. P., Berger, D., Campbell, L., & Loving, T. J. (2017). Falsifiability is not optional. *Journal of Personality and Social Psychology*, 113, 254–261. <https://doi.org/10.1037/pspi0000106>
- LeBel, E. P., McCarthy, R. J., Earp, B. D., Elson, M., & Vanpaemel, W. (2018). A unified framework to quantify the credibility of scientific findings. *Advances in Methods and Practices in Psychological Science*, 1, 389–402. <https://doi.org/10.1177/2515245918787489>
- Lin, W., & Green, D. P. (2016). Standard operating procedures: A safety net for pre-analysis plans. *PS: Political Science & Politics*, 49, 495–500. <https://doi.org/10.1017/S1049096516000810>
- Martinez-Taboas, A. (1983). An appraisal of the role of aggression and the central nervous system in RSPK agents. *Journal of the American Society for Psychical Research*, 78, 55–69.
- Meehl, P. E. (1967). Theory-testing in psychology and physics: A methodological paradox. *Philosophy of Science*, 34, 103–115. <https://doi.org/10.1086/288135>
- Meehl, P. E. (1978). Theoretical risks and tabular asterisks: Sir Karl, Sir Ronald, and the slow progress of soft psychology. *Journal of Consulting and Clinical Psychology*, 46, 806–834. <https://doi.org/10.1037/0022-006X.46.4.806>
- Moore, D. A. (2016). Pre-register if you want to. *American Psychologist*, 71, 238–239. <https://doi.org/10.1037/a0040195>
- Morse, J. (2003). Principles of mixed methods and multimethod research design. In C. Teddlie, & A. Tashakkori (Eds.), *Handbook of mixed methods in social and behavioral research* (pp. 189–208). Sage Publications.
- *Nahm, M. (2021, November 24). Climbing mount evidence: A strategic assessment of the best available evidence for the survival of human consciousness after permanent bodily death. *Bigelow Institute for Consciousness Studies*. https://www.bigelowinstitute.org/Winning_Essays/Michael_Nahm.pdf
- NOW. (2018). *Netherlands code of conduct for research integrity*. Nederlandse Organisatie voor Wetenschappelijk. [https://www.knaw.nl/shared/resources/actueel/bestanden/netherlands-code-of-conduct-for-research-integrity-2018-uk](https://web.archive.org/web/20220309060726/https://www.knaw.nl/shared/resources/actueel/bestanden/netherlands-code-of-conduct-for-research-integrity-2018-uk)
- Nickerson, R. S. (1998). Confirmation bias: A ubiquitous phenomenon in many guises. *Review of General Psychology*, 2, 175–220. <https://doi.org/10.1037/1089-2680.2.2.175>
- O'Keeffe, C., & Wiseman R. (2005). Testing alleged mediumship: Methods and results. *British Journal of Psychology*, 96, 165–179. <https://doi.org/10.1348/000712605X36361>
- Parker, A., & Millar, B. (2014). Revealing psi secrets: Successful experimenters seem to succeed by using their own psi. *Journal of Parapsychology*, 78, 39–55.
- Radin, D. (1997). *The conscious universe: The scientific truth of psychic phenomena*. Harper Edge.
- Rock, A. J. (2014). Introduction: The medium and the message. In A. J. Rock (Ed.), *The survival hypothesis: Essays on mediumship* (pp. 7–19). McFarland.
- Rock, A. J., & Storm, L. (2015). Testing telepathy in the medium/proxy-sitter dyad: A protocol focusing on the source-of-psi problem. *Journal of Scientific Exploration*, 29, 565–584.
- Rock, A. J., Thorsteinsson, E. B., Tressoldi, P. E., Loi, N. M. (2021). A meta-analysis of anomalous information reception by mediums: Assessing the forced-choice design in mediumship research, 2000–2020. In S. Krippner, A. J. Rock, H. L. Friedman, & N. Zingrone (Eds.), *Advances in parapsychological research, volume 10* (pp. 49–69). McFarland.
- Sarraf, M., of Menie, M. A. W., & Tressoldi, P. (2021). Anomalous information reception by mediums: A meta-analysis of the scientific evidence. *Explore*, 17, 396–402. <https://doi.org/10.1016/j.explore.2020.04.002> <https://doi.org/10.1016/j.explore.2020.04.002>
- Simmons, J. P., Nelson, L., & Simonsohn, U. (2020). Pre-registration: Why and how. *Journal of Consumer Psychology*, 31, 151–162. <https://doi.org/10.1002/jcpy.1208>
- Steege, S., Tuerlinckx, F., Gelman, A., & Vanpaemel, W. (2016). Increasing transparency through a multiverse analysis. *Perspectives on Psychological Science*, 11, 702–712. <https://doi.org/10.1177/1745691616658637>
- Storm, L. (2014). Foreword. In A. J. Rock (Ed.), *The survival hypothesis: Understanding mediumship* (pp. 1–4). McFarland & Co.
- Storm, L., & Tressoldi, P. E. (2017). Gathering in more sheep and goats: A meta-analysis of forced-choice sheep-goat ESP studies, 1994–2015. *Journal of the Society for Psychical Research*, 81, 79–107.
- Sudduth, M. (2009). Super-psi and the survivalist interpretation of mediumship. *Journal of Scientific Exploration*, 23, 167–193.

- Sudduth, M. (2014). Is postmortem survival the best explanation of the data of mediumship? In A. J. Rock (Ed.), *The survival hypothesis: Essays on mediumship* (pp. 40–64). McFarland & Co.
- Sudduth, M. (2016). *A philosophical critique of empirical arguments for postmortem survival*. Springer.
- Sudduth, M. (2021). The James Leininger case re-examined. *Journal of Scientific Exploration*, 35, 933–1026. <https://doi.org/10.31275/20212361>
- Thalbourne, M. A. (1995). Further studies of the measurement and correlates of belief in the paranormal. *Journal of the American Society for Psychological Research*, 89, 234–247.
- Thalbourne, M. A. (2003). *A glossary of terms used in parapsychology*. Puente.
- Windbridge Research Center (WRC). (2022). Meet the Windbridge certified research mediums (WCRMs). <https://www.windbridge.org/mediums/>

APPENDIX

Overview of the “Content–Source” Problem in Survival Research¹¹

We reiterate that our proposed research design is expected to comprise merely the initial step of an iterative research process. The existence of a reliable and well-controlled AIR effect that is consistent with the survival hypothesis is therefore the fundamental question that our protocol addresses. This issue arguably must be settled first to warrant additional studies of mediating, moderating, or causal variables. Given positive results from our protocol, a second stage of research would likely require innovative research designs to address important nuances or complexities that can obscure a clear interpretation for any observed effects.

Beyond the various conventional explanations for mediumistic or otherwise anomalous “entity” communications (see, e.g., Caputo et al., 2021; Cunningham, 2012; O’Keeffe & Wiseman, 2005), parapsychologists have used four models to explain ostensible AIR by claimant mediums: (a) the survival hypothesis, (b) the *living agent psi* (LAP) hypothesis, (c) the *super-ESP* (also *super-psi*) hypothesis, and (d) the *psychic reservoir* (also *cosmic reservoir* and *cosmic psychic reservoir*) hypothesis (Rock, 2014). However, we note that (c) is a more specific kind of (b), and arguably so is (d) (since living agents would need to access said reservoir, i.e., use clairvoyance). Readers should see Augustine (2022b, pp. 420–421) for a defense of the distinction between (b) and (c). The epistemological difficulties associated with identifying the source of veridical information from mediums is called the *source-of-psi* problem. In the interests of com-

pleteness and balance, we will summarize each of these ideas below. Note that our discussion of these concepts does not imply any endorsement of their scientific validity.

According to robust versions of the survival hypothesis (per Sudduth, 2016, pp. 16–17), “the existence of discarnate persons provides the best explanation of the data associated with physical and mental mediumship” (Sudduth, 2009, p. 167). One limitation of the survival model is that it is potentially less parsimonious than non-survivalist explanations since it implies that: (a) postmortem consciousness exists, suggestive of an additional dimension or dimensions to Einsteinian space–time; and (b) such entities are distinct, ontologically, from the brains of incarnate minds. Perhaps the “strength” or ubiquity of the belief in survival resides primarily in its historical, religious, and phenomenological origins.

Those who argue that empirical survivalists have thus far failed to make a probabilistic case in favor of the survival hypothesis (e.g., Sudduth 2014, 2016) often employ LAP and the super-ESP hypothesis as alternative, and possibly superior, explanations of survival-related data. Simply put, LAP denotes psi [extrasensory perception (ESP) and psychokinesis (PK)] that originates either consciously or unconsciously from living biological entities. In contrast, super-ESP refers to:

The hypothesis that since there are no known limits to the scope of psi, extrasensory perception on the part of the living could in principle be used to produce such complex phenomena as ostensible spirit communication, and that therefore the spirit hypothesis is unnecessary and unparsimonious. (Thalbourne, 2003, p. 121)

Consequently, the possibility of super-psi (psi without any known limits) may be interpreted as an extension, conceptually, of the methodological challenges introduced by invoking LAP. While some scholars conceptualize super-psi as LAP “pushed to its limits” (Gauld, 1982, p. 15), others (e.g., Braude, 2014; Sudduth, 2014) do not seem to consider super-psi an *extension* of LAP, but rather recommend that the term “super-psi hypothesis” be supplanted “with the more accurate and neutral ‘living agent psi hypothesis’” (Braude, 2014) since any information or influence mediated by psi would be *equally* available to either living or deceased persons.

Braude (2003) further suggested that, according to the literature, the LAP hypothesis appears to consist of two versions. First, the *multiple-process* hypothesis regards LAP “as an organized collection of refined psychic tasks” (Braude, 2003, p. 11). It posits the medium’s purported ability to respond successfully to the task complexity in-



volved in putative discarnate communication (e.g., ESP that “reads” the thoughts of the sitter and other salient individuals, or ESP that “intuits” pertinent physical objects and/or events). Second, the *magic-wand* hypothesis asserts that even the most complex ESP occurs simply as a result of the wishes or desires of percipients. Consequently, this hypothesis disregards (a) task complexity and (b) effort exerted by the percipient (Braude, 2003). The central quandary posed by the LAP hypothesis can be described as follows:

If a piece of putative evidence for survival is to be of use, it must be verifiable—we must be able to check by consulting records or surviving friends that the information given by the ostensible communicator is correct. But if the sources for checking are extant, they might in theory be telepathically or clairvoyantly accessible to the medium or percipient. Since we do not know the limits of ESP we can never say for certain that ESP of the extraordinary extent that would be necessary . . . is actually impossible. (Gauld, 1982, p. 15)

Thus, it is, perhaps, not surprising that it has been contended that the LAP hypothesis is not empirically testable because “it postulates an omniscient and omnipotent capacity that cannot be falsified by the scientific method” (Martinez-Taboas, 1983, p. 58). However, this would only be true of super-psi or unlimited-capacity psi. A limited capacity LAP hypothesis is eminently testable. Recall that LAP is just psi [extrasensory perception (ESP) and psychokinesis (PK)] that originates either consciously or unconsciously from *living* biological entities. Nevertheless, while we may not know the limits of psi (e.g., Braude, 2003), it does not necessarily follow that psi is unlimited. Still, if the case for survival is dependent on eliminating some subset or subsets of counter-explanations, then the former claim is sufficient to generate problems for survivalist interpretations of ostensible survival evidence.

Scholars who argue that the survival hypothesis is untestable often appeal to the LAP hypothesis.¹² For instance, Irwin (2002) reviewed séance phenomena, OBEs, NDEs, reincarnation experiences, and apparitional and poltergeist experiences, concluding that “the operation of such processes” as LAP are “impossible to exclude” and, thus, the aforesaid phenomena “cannot be conclusive for the survival hypothesis” (p. 20). However, others have argued that the LAP hypothesis has less explanatory power than the survival hypothesis:

I accept that the evidence from mediumistic communications for survival of consciousness is not

conclusive; but it is the only viable alternative to [a LAP explanation] which for most informed observers would be considered less persuasive. (Keen, 2003, p. 38)

Unfortunately, Keen made little attempt to justify why he regarded the survival hypothesis as a superior explanation to LAP relative to mediumistic “communication.” Keen (2003) briefly referred to three cases, contending that all are “. . . in theory susceptible to an explanation which confines a psychic faculty to the living mind, but only by postulating the most improbable, speculative and evidentially unsupported extensions of psi” (p. 38). However, he neglected to expand on these “most improbable, speculative and evidentially unsupported extensions of psi” (p. 38), and did not defend why survival was more probable, less speculative, and evidentially superior to the LAP explanation.

Braude (2003) aimed to progress the LAP versus survival stalemate using his *argument from crippling complexity* (pp. 86–95). Here, the crippling complexity generated by the *psychic traffic* of the totality of incarnate minds might function as an impediment to LAP during the interaction between mediums and sitters. If correct, this contention might provide indirect support for the survival hypothesis. However, Braude found no persuasive reason to conclude that the complexity of the hypothesized mediumship–sitter interaction’s underlying causal nexus is fundamentally different from the mediumship–discarnate interaction’s causal nexus:

. . . it should be as difficult for communicator and medium to create (say) a consistent, long-term impersonation as it would be for the medium to accomplish the same thing through clairvoyance and telepathy with the living. Both tasks would encounter inevitable obstacles from the bustling underlying nexus of psychic activity, and that underlying causal network would have to include attempts by the deceased to gather information and influence the living. (Braude, 2003, p. 93)

Consequently, according to Braude (2003), the argument from crippling complexity appears to apply equally to the LAP and discarnate psi. Braude (2003) nevertheless contended that LAP interpretations have less parsimony than survivalist ones because they posit *multiple* sources of information (e.g., the medium telepathically scanning the mind of sitters, other living people, or discarnates, or clairvoyantly accessing pertinent objects such as photos). In contrast, survivalist interpretations of evidence for psi posit a *single* source (i.e., one discarnate). Consequently,

one might grant “an explanatory edge to the survivalist, at least on the grounds of parsimony” (Braude, 2003, p. 93).¹³ However, as Storm (2014) highlighted, “. . . the human mental agility implied in one theory [super-psi] is as equally challenging to the emotions and the intellect as the multidimensionality implied in the other [survival]” (pp. 1–2).

An additional alternative to the survival hypothesis is the psychic reservoir hypothesis, which states that “all information since the beginning of time is stored somehow and somewhere in the universe and mediums are accessing that cosmic store rather than communicating with the deceased” (Beischel & Rock 2009, p. 72). Fontana (2005) argued that this hypothesis is weaker compared to the LAP hypothesis because, while there arguably exists experimental evidence that may be interpreted as supportive of clairvoyance and telepathy (e.g., Radin, 1997), there is no scientific evidence that is supportive of a cosmic store of information.¹⁴ Furthermore, Fontana (2005) argued that, in addition to the fact that the hypothesis cannot be falsified, there are several practical problems with this hypothesis. For instance, “What is the organizing principle or intel-

ligence behind the cosmic psychic reservoir?” (p. 114).¹⁵ However, this hypothesis is perhaps useful for the further delineation of *agentive* (e.g., the sitter’s mind) versus *non-agentive* (e.g., a cosmic store of information) sources of AIR.

Taken altogether, an accurate interpretation of reliable AIR effects could prove to be an intractable problem even from a sympathetic, parapsychological perspective. Thus, this adversarial collaboration and the prior exchanges about evidence and outlook (Augustine, 2022a, 2022b; Braude et al., 2022) perhaps ultimately unite on two important conclusions, namely that (a) the quest for a conclusive, unambiguous experiment or study to confirm disembodied personal survival might be ill-conceived from the start, or else that (b) researchers from both the survivalist and mortalist camps have a long way to go to settle the matter scientifically once and for all. Perhaps an iterative process of developing and implementing rigorous and innovative mediumship-testing techniques, continuously updated in response to new evidence, will result in a meta-analytic database that indicates a convergence towards one source of psi over others (Jamieson & Rock, 2014).