Journal of
Scientific
Exploration

Anomalistics
and
Frontier
Science

SPECIAL SUBSECTION

On the Band-Limited Information Throughput of Free-Selective and Free-Responsive Spatially Non-Local Perception

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SUBMITTED April 6, 2023
ACCEPTED August 2, 2023
PUBLISHED October 31, 2023

https://doi.org/10.31275/20232951

HIGHLIGHTS

Extrasensory perception possibly involves tangible and intangible types of information that are filtered during transmission.

ABSTRACT

A single-blind experiment was conducted on free-responsive spatially non-local perception of free-selective simple photographic targets. One author (the tasker) chose a photographic target not subjected to *a priori* compiling, and the other author (the perceiver) attempted to unconventionally perceive the target. Feedback was expected prior to a new target being selected. A hundred trials were completed over 11 months. Thirteen judges offered gradings that collectively projected an apparent information requisition yield (AIRY). The AIRY refers to two aspects of the matching of a taskette (a target's counterpart) with respect to the target based on fuzzy scales from 0% to 100%, graded with an increment of 10%. The type-I or "tangibility" aspect of matching assessed the extent of the resemblance of a taskette to the target in terms of the shape or structural details of the primary physical entity/event. The type-II or "intangibility" aspect of the matching assessed the degree of the reconstruction of a taskette to the target in terms of the feature or functionality of the predominant physical entity/event. A total of 6 taskettes received >50% grades in both type-I and type-II aspects of matching with their respective targets. This outcome may correspond to an effect size of 1.47 if the chance-expectation may give a benchmark proportion of 3 out of 100 trials producing >50% grades in both type-I and type-II aspects of matching. Patterns indicating target interference associated with two trials entail further investigation. The approaches offer new insights to quantifying the band-limited information throughputs of spatially non-local perception.

KEYWORDS

Psi, remote viewing, non-locality, spatially non-local perception, modulation transfer function, point-spread function, impulse response, filter, apparent information requisition yield, partitioned undulation net transfer.

INTRODUCTION

What is a camera used for? For acquiring information of an object (whether being static or dynamic) to be registered on a physical material that can hold that information. How is it different between a high-quality camera put to space travel and a toy-quality camera played by a toddler? What differs, in terms of the outcome, is the quality of information transmission, or the quantifiable degree of the details of the object or target that will be transmitted

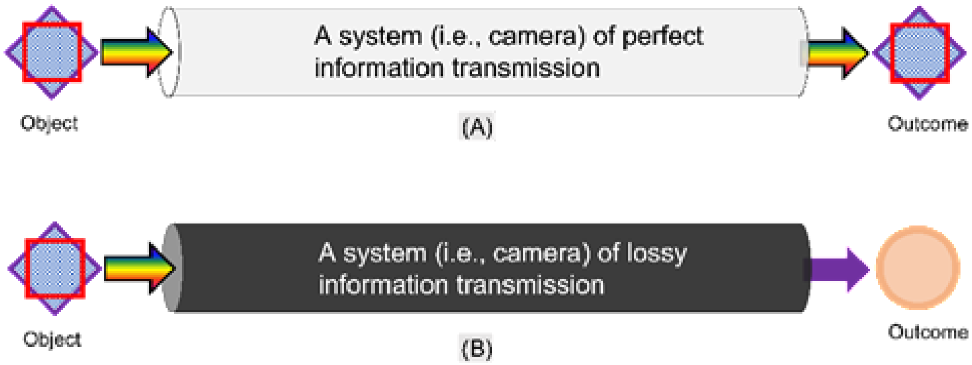

Figure 1. Any physical means to produce/relay/restore the information of an object has a quality of merit akin to the characteristics used for quantifying the fidelity or robustness of information transmission. A perfect system transmits every detail of the object or target. A practical system will lose some details of the object or target in the transmission.

through or processed by the camera to appear as the output when compared to the input. As is conceptualized in Fig. 1, a high-quality camera, which in essence is a system of information transmission, will allow the fine details of an object to appear on the outcome side. Comparatively, a low-quality camera, also acting as a system of information transmission, will lose the fine details of an object and have only partial features of the object to appear at the outcome side. Likewise, any sensory response has a limitation, just as what is inferred by the visible spectrum of light and the audible range of sound.

Regardless of how the information may be relayed through or accessed via a system or means of physical channel, there is always an object or target as the origin of the information, against which the information produced/appeared/relayed/reconstructed at a different spatial location and later in time can be compared. This also applies to the information that may be transmitted non-locally or unconventionally when involving human perception, as is conjectured in Fig. 2. In the cases of the information of an object appearing to have been relayed or reconstructed at a different spatial location and later in time, even if the means of information transmission may not be accountable by known physical principles or verifiable technological access, there is the input side of the information-transmission being a physical object or entity and there is also the output side of the information-transmission being another physical object or entity. Comparing the detail of the information contained at the output versus that at the input shall inform the quality of the unknown or unspecified route of information throughput.

Then a fundamental question arises: How to objectively assess the quality of the information relay if the process seems to engage human perception in ways that are unaccountable by known physical principles or verifiable technological access? The answer to this question depends greatly upon the property of comparison between the two physical entities existing at both ends of the information relay, specifically the object being targeted for the information relay and the outcome of the information relay.

We may then ask, to what degree is a McIntosh like a Fuji if an unconventional perception has mistaken a Fuji as a McIntosh? To what extent does an orange resemble an apple if an unconventional perception has made up an apple as an orange? How much similarity is there between a papaya and a banana if an unconventional perception has modeled a banana as a papaya? How can the outcome of

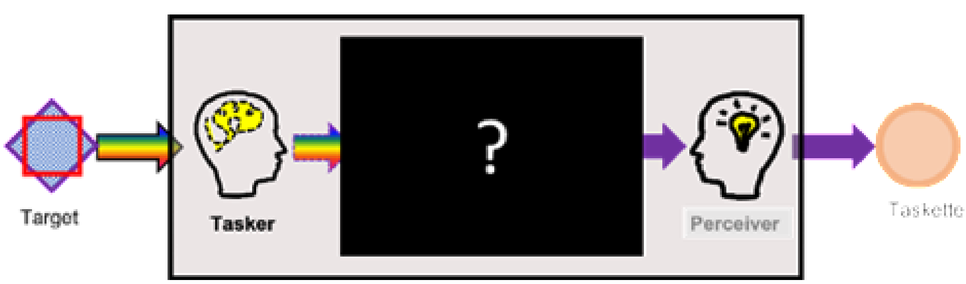

Figure 2. If partial information of an object as a target has appeared in a different location, there is the issue of the quality of information transmission of the route engaged in relaying the information, regardless of whether it involves human perception or not. The counterpart of target, with respect to how the information may be relayed, is referred to as taskette for convenience as well as the inferring to the objectivity of the two opposite ends of the information throughput over a yet-to-be-recognized mechanistic channel of perception.

unconventional perception be assessed in ways that are more objective to facilitate investigating specific factors that may influence the outcome?

A McIntosh may be perceived as being very much like a Fuji in terms of being an apple. But if the finer shape or delicate taste is up for comparison, one would be able to distinguish a McIntosh from a Fuji. An orange may resemble an apple based upon the gross shape or being fruit. But if the surface texture or internal compartmentalization is what one is concerned with, an orange is not like an apple. A papaya could be argued as being not much different from a banana as they both grow high on the tree in a clustered pattern to become fruit. But if the shape and size of the individual piece are scrutinized, a papaya apparently differs from a banana. Then, how much similarity, in percentage or on a scale spanning 0 to 1, can a McIntosh be said to be like a Fuji? How much dissimilarity, in percentage or on a scale spanning 0 to 1, can an orange be said to be unlike an apple? And how analogous or disparate in properties, in percentage or on a scale spanning 0 to 1, can a papaya be said to resemble or match a banana?

We may be inclined to recognize the ambiguity or uncertainty that multiple aspects are intertwined in our awareness or perception when comparing one physical object to another physical object (Dunne & Jahn, 2007), particularly when assessing the outcomes of unconventional perception. One perceptible aspect of the comparison between two physical objects may lie in the geometric properties such as shape and structural details. These properties can be referred to as "tangible" since they are measurable by physical means of objective reproduction or reconstruction, such as a camera. Another perceptible aspect of comparing between two physical entities may pertain to the usage of the object, such as featural and functional characteristics. These features or functional properties may be considered "intangible" because of the requirement of an awareness to abstract the specifics of information that cannot be said to be purely physical or exclusively objective. Then, what about comparing two packages of physically documented information conveying properties that are subjective and intuitive, in addition to the objectivity associated with any documented information, that makes them difficult to process by means of objective approaches alone? Will such comparison be weighted more towards the intangibility than the tangibility of the properties of the target entity? And if so, how? For example, what amount of "perceivable" information is matched to a photograph of an astronaut on the moon in a pitch-black background by a poor drawing of a human figure in a spacesuit-like outfit while illuminated by sparse starlight? How much "tangibility" and "intangibility" of the target entity can be said to be present in the poor drawing? How much does the poor drawing match the target in terms of the key information defining the most important message of the object/event?

The inherent vagueness of human perception in affiliating one object or concept to a definitive realm of information, more concisely called the fuzziness, has been well-established in social sciences (Ragin, 1999) for objectives including uncovering complex causal relationships (Fiss, 2011) and assigning causal credits (Kogut et al., 2004), and in imaging applications for spatial pattern matching (Leung, 1983). The significant burden of data analysis associated with the perceptual uncertainty in the STAR GATE program (Marwaha & May, 2017; Puthoff & Targ, 1976; Targ & Puthoff, 1975; Tart et al., 1980) prompted May et al. to apply the fuzzy set approach to computerize the target information to quantitatively assess the outcomes of non-local perception, or the perception via unconventional means (May et al., 1990; 2012). It is, however, worthy to note that the fuzzy set developed by May et al. enumerates all properties of the targets that were considered perceivable, regardless of being tangible or intangible, including both the objective shape (rectangular, square, box) and the subjective type of scenery requiring intelligent judgment (urban, rural) (May et al., 1990; 2012). This approach pioneered the understanding of the odds that are unambiguously attributable to the chance-expectation to determine the effect size. However, to shed light on what might underlie the information transmission by spatially non-local or unconventional means (Chatel-Goldmna et al., 2013; Tressoldi, 2011), it may be imperative to differentiate the type of information that can hardly be processed without the engagement of human intelligence (Targ, 1994), from the kind of information that is objective and thereby unambiguously quantifiable by applying physical-mathematical metrics. Differentiating between the two types of information that could be processed unequally or passed differently by whatever process the unconventional perception may engage may help foster more robust strategies of target selection or other aspects of protocol control necessary to improving the understanding of unconventional perception, whether that is spatially non-local or temporally acausal.

What more needs to be done to facilitate a more objective and further quantifiable assessment of the outcome of unconventional perception? We felt it was convenient to use the term "*inforception*" to abbreviate "information transmission by anomalous perception". We also felt compelled to use the term "inforception" on the speculation that the spatially non-local perception resulting in some information of the target appearing at the outlet of the transmission does not seem to engage any physically tractable channel, thereby leaving only the perception to be attributable to the manifested level of information throughput that can be traced towards the true information of the target.

Regardless of the mechanism involved or engaged or associated with the perception of unconventional means, two physical entities do lie at both ends of inforception; one is the target being the ground truth, and the other is a counterpart of the target reconstructed or retrieved by the inforceptive process, as is illustrated in Fig. 2. We hereafter call the counterpart of the target "taskette" for brevity and objectivity. In any inforceptive event, regardless of whether it is being performed under a single-blind protocol or with stricter control, there must be someone who willingly or volitionally determines a target, and correspondingly, there must be another one who exercises some level of perceptive means to produce the taskette. Therefore, the process of an unconventional perception may be put as one that involves a target, a tasker, an unknown path of information transmission or relay, a perceiver, and a taskette as the result.

This process linking a target with a taskette by any unconventional means, in terms of the result, is not much different from a system of conventional information transmission, as is depicted in Fig. 1(B). As is conceptualized, the consequence is that the target information is being processed by a channel/means capable of transmitting the information that practically cannot let pass 100%, and the outcome is a taskette carrying information that, at best, is as good as what the target represents, should the information transmission channel have no additional source of information inlet to interfere with the process. The outcome or the throughput of such information transmission process shall be standardizable by means of objective metrics such as transfer function or modulation transfer function (MTF), which is the amplitude of Fourier transform of the so-called point-spread-function (PSF) that is specific to relaying visually discernible information through a system designed to acquire the spatial details (Coltman, 1954; Judy, 1976; Rossmann, 1969). The general principles of MTF or PSF in defining the quality of information throughput are referred to in Appendix 1. These metrics, which are standard for assessing the relay of information in physical sciences, may be relied upon to develop a new understanding of the quantifiable outcome of non-local perception.

A motivation of this experiment has been to assess the relative information throughput of spatially non-local perception attempted by an unexperienced percipient to understand if the non-local information transmission may differ between the tangible and intangible aspects of the information. Furthermore, the assessment of the information throughput using a new but mathematically viable function may enable further transformation to be implemented for applying the model approach to other data sets bearing similarity in terms of the interplay between objective (tangible) and subjective (intangible) aspects of information.

It shall, however, be noted that the results of this work may not indicate the existence of spatially non-local perception but rather elicit the need to address that the band-limited information throughput that may be unavoidable in a process seemingly conforming to spatially non-local perception may have two aspects differentiated by whether the information may be tangible or in-tangible. An understanding specific to the throughput of the "intangibility" aspect of the information will be an advancement over the prior pioneering approaches treating all information perceived unconventionally as likely "tangible". The initial understanding gained from this experiment, based on an alternative information perspective to the spatially non-local perception, could help develop better experimental protocols upon the accessibility to greater researchable resources by applying more specific control of the spectrum of information that must be engaged in the unconventional channel of perception and introducing specific interference to the targeting process to isolate factors that have been previously unattended to.

This present experiment has been conducted in line with a very limited and narrowly specific aim: to apply the spirit of MTF that is standard for assessing the transmission of tangible information to interpreting the degree and type of information associated with photographic objects that seemed to have been non-locally perceived. The inherently fuzzy information throughput associated with non-local perception is analyzed in an exploratory perspective referred to as apparent information requisition yield (AIRY). The partition of the information seemingly transmitted via the means of unconventional perception to tangible (purely objective) and intangible (primarily subjective) aspects makes it imperative to assess AIRY in two aspects or directions according to the indices of the information complexity: one is of the tangibility, and the other is of the intangibility. The combined pattern is referred to as a two-way AIRY. A Fourier transform-like operation onto the two-way AIRY further leads to a partitioned undulation net transfer (PUNT) function, which is analogous to but not the same as MTF. The PUNT function, which may be considered a relative MTF, will be helpful for quantifying the relative throughput of the transmission of both tangible and intangible aspects of information. The approach may enable additional mathematical treatments for a more comprehensive analysis of the outcome and process to inform the possible mechanism of spatially non-local perception.

APPARATUS AND METHODS

Theoretical Apparatus

In Appendix 2, we outline the principles leading to the partitioned undulation net transfer (PUNT) function via the apparent information requisition yield (AIRY) when the information of a target is modeled as being processed through a fuzzy channel of information transmission. Those theoretical formulations are hypothesized to be applicable to spatially non-local information transmission.

Terminology. Some ideas are inherently crisp or binary, but others are naturally fuzzy. For example, a person has or has not been a world champion in a single-player sport. That "championship", if classified as a membership, is crisp, being either zero for NO or one for YES. The membership of a person in terms of that "championship" can be called "crisp-membership". But what about a person who has been a world-renowned player in that sport but not necessarily a title-earner? If what is to be classified is "sportsmanship" or "skill-ship", there is no crisp definition of where the person stands, and as such, the "membership" of the person to the classifiable property such as "sportsmanship" or "skill-ship" may be called "fuzzy-membership".

Hereby, we speculate on the correspondence between fuzzy-membership (referring to the ambiguity or subjectiveness of associating a specific concept to a category, e.g., is today's temperature hot or not hot?) characterizing the degree of matching (the matching-ship) or missing (the missing-ship) and a relative level of modulation transfer of the informational complexity of the target. We define the following terms for the benefit of streamlining the subsequent descriptions pertaining to the objectivity of information throughput to facilitate future mathematical implementation, irrespective of what mechanism may govern the information throughput. (1) Target: the objective-entity documented permanently by means of physical information storage such as print, digital photograph, or electronic memory. (2) Taskette: the individual result of the fuzzy information transmission that has been documented permanently by means of physical information storage such as a drawing or a script of descriptive words and sentences in a hard copy or electronic medium of perpetuity. The "taskette" serves as the output of the target through an inforception process. (3) Tasking: the action or process of relaying the information of a target to a taskette. (4) Feedback: the access to the target by an individual upon production of a taskette. (5) Trial: the completion of the process from making a target available to completing feedback specific to a taskette. (6) Tasking-duration: the time registered between the selection of the target and making the taskette accessible to the individual who selected the target. (7) Inforealm: the "information realm" referring to the entirety of in-

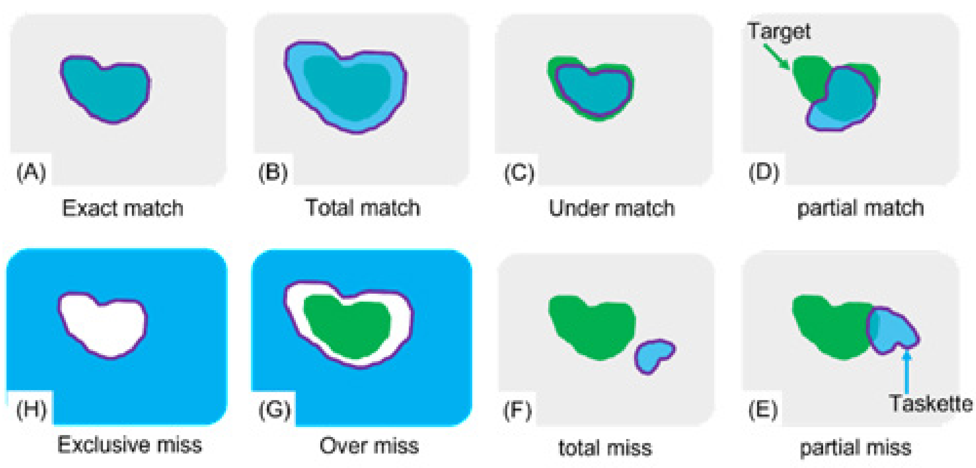

Figure 3. The matching or missing conditions between a taskette and its corresponding target. The eight sub-figures are ordered clockwise as (A) to (H). The round-cornered base rectangular area in each subfigure denotes the entire domain of information for defining all physical objects. The free-form area in (D) pointed by an arrow, which appears in the other seven subfigures with identical position, orientation, and size, specifies the exact sub-domain information or inforealm for a target (i.e., the true condition or the ground truth). The thick-free-form framed area in (E) pointed by an arrow, which appears in the other seven subfigures with differing position, orientation, and size, designates the exact sub-domain information or inforealm for a taskette (the estimated condition or the reconstruction) corresponding to a target. (A) corresponds to 100% matching of a taskette to its target. (F)-(H) together corresponds to 100% missing of a taskette from its target, however, the patterns or aspects of the missing may be arguably different among these three conditions.

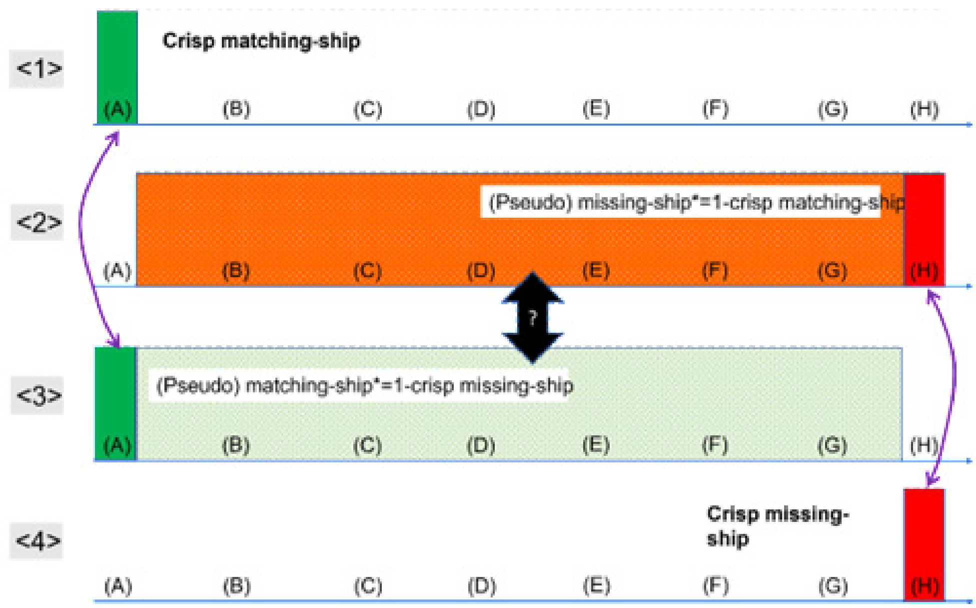

Figure 4. The crisp grading of the eight conditions shown in Figure 3 concerning the matching or missing of a taskette with respect to its target. Panel (1): A crisp matching-ship of 1 is assigned to ONLY the exact match of condition (A). This will assign (B)-(H) a crisp matching-ship of 0. Alternatively, a crisp matching-ship of 1 is assigned to (A) and (B) due to the recovery of the entire information of the target. This will assign (C)-(H) a crisp matching-ship of 0. Panel (2): The conjugate of the crisp matching-ship constitutes the pseudo-missing ship. This will give (A) a pseudo-missing-ship of 0, and (B)-(H) a pseudo-missing-ship of 1. The alternative of (1) will assign (C)-(H) a pseudo-missing-ship of 1. Panel (4): A crisp missing-ship of 1 is assigned to ONLY the exclusive miss of condition (H). This will make (A)-(G) receive a crisp missing-ship of 0. Alternatively, a crisp missing-ship of 1 is assigned to (F)-(H) due to the absence of any target information in the taskette. This will make (A)-(E) receive a crisp missing-ship of 0. Panel (3): The conjugate of the crisp missing-ship constitutes the pseudo-matching-ship. This will give (H) a pseudo-matching-ship of 0, and (A)-(G) a pseudo-matching-ship of 1. The crisp membership will cause contradictory pseudo memberships for conditions that likely are the most practical and common outcomes of any spatial non-local perception conducted.

formation needed to completely and non-redundantly characterize one physical entity. (8) Matching-ship: the degree of matching, as the abbreviation of matching membership. (9) Missing-ship: the extent of missing, as the abbreviation of missing membership.

Regardless of the means taken for relaying the information via spatially non-local perception, there is the need to determine the degree of matching or missing of a taskette against the corresponding target to assess the information throughput. By referring to **Fig. 3**, we illustrate the following inclusive conditions of matching/missing of a taskette with respect to a target in the formats permitting future mathematical representation. (A) Exact match: the inforealm of the taskette is identical to that of the target. (B) Total match: the inforealm of the taskette is a super-set of that of the target. (C) Under match: the inforealm of the taskette is a sub-set of the inforealm of the target. (D) Partial match: the common set of the inforealm of the taskette and that of the target is greater than 50% but less than 100% of the inforealm of the target. (E) Partial miss: the common set of the inforealm of the taskette and that of the target is less than 50% but greater than 0% of the inforealm of the target. (F) Total miss: the inforealm of the taskette has no overlap with that of the target, and the completement-set of the inforealm of the taskette in the entirety of the information domain is the super-set of the inforealm of the target (off the target). (G) Over miss: the inforealm of the taskette is a sub-set of the complement-set of the inforealm of the target in the entirety of the information domain (missed more than the target). (H) Exclusive miss: the inforealm of the taskette is the exact complement-set of the inforealm of the target in the entirety of the information domain (missed only the target).

In the following, we address how the crispness or fuzziness of matching or missing may impact the consistency of the grading of the conditions shown in Fig. 3.

Crisp Membership [0 or 1] of the Matching or Missing. Figure 4 details the crisp grading of the eight conditions shown in Fig. 3 when concerning a binary (ALL or NONE) matching or missing of a taskette with respect to its target. Panel (1): A crisp matching-ship of 1 is assigned to ONLY the exact match of condition (A) of Fig. 3. This will assign all conditions of (B)-(H) of Fig. 3 to a crisp matching-ship of 0. Panel (2): The conjugate of the crisp matching-ship constitutes the pseudo-missing ship.

This will assign (A) of Fig. 3 to a pseudo-missing-ship of 0, and all (B)-(H) of Fig. 3 to a pseudo-missing-ship of 1. Panel (4): A crisp missing-ship of 1 is assigned to ONLY the exclusive miss of condition (H) of Fig. 3. This will assign all conditions of (A)-(G) of Fig. 3 to a crisp missing-ship of 0. Panel (3): The conjugate of the crisp missing-ship constitutes the pseudo-matching-ship. This will assign (H) of Fig. 3 to a pseudo-matching-ship of 0, and all (A)-(G) of Fig. 3 to a pseudo-matching-ship of 1. As a result, the crisp membership will cause contradictory pseudo memberships for intermediate conditions appearing in panels (2) and (3), which likely are the most practical and common outcomes of any spatially non-local perception conducted. The incongruence of the pseudo-membership is undesirable.

Fuzzy Membership [0-1] of the Matching and Missing. Figure 5 outlines the continuous-fuzzy grading of the eight conditions shown in Fig. 3 by considering the continuously varying degrees of the matching or missing of a taskette with respect to its target. Panel (1): A continuous-fuzzy matching-ship of 1 and 0 are assigned to the exact match of condition (A) of Fig. 3 and exclusive miss of condition (H) of Fig. 3, respectively. The conditions bounded by (A) and (H) of Fig. 3 are then assigned a fuzzy matching-ship distributed between 1 and 0. Panel (2): The conjugate of the continuous-fuzzy matching ship constitutes the pseudo-missing ship. This will assign (A) and (H) of Fig. 3 to a pseudo-missing-ship of 0 and 1, respectively, and the conditions bounded by (A) and (H) of Fig. 3 to a fuzzy pseudo-missing-ship distributed between 0 and 1. Panel (4): A continuous-fuzzy missing-ship of 0 and 1 are assigned to the exact match of condition (A) of Fig. 3 and exclusive miss of condition (H) of Fig. 3, respectively. The conditions bounded by (A) and (H) of Fig. 3 are thus assigned a fuzzy missing-ship distributed between 0 and 1. Panel (3): The conjugate of the continuous-fuzzy missing-ship constitutes the pseudo-matching-ship. This will assign (A) and (H) of Fig. 3 to a pseudo-matching-ship of 1 and 0, respectively, and the conditions bounded by (A) and (H) of Fig. 3 to a fuzzy pseudo-matching-ship distributed between 1 and 0. The pseudo-matching-ship and missing-ship for the intermediate conditions appearing in panels (2) and (3) now accord with each other. Because the matching of a taskette with its target will unlikely be crisp, and the target may contain information that may be intangible, interpreting the taskette-target matching may require assessing the matching-ship not only in a fuzzy-scale but also considering the difference between

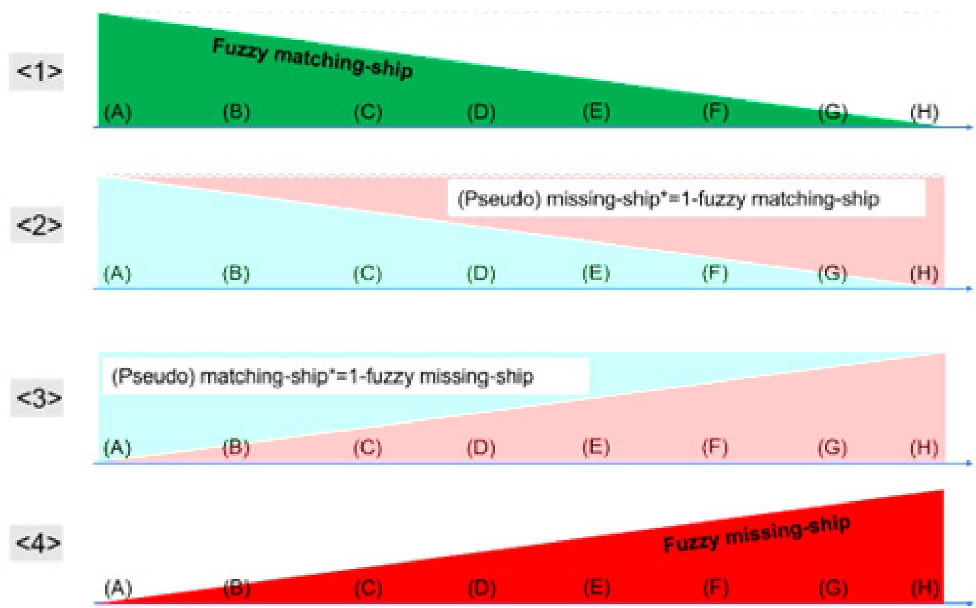

Figure 5. The continuous-fuzzy grading of the eight conditions shown in Figure 3 concerning the matching or missing of a taskette with respect to its target. Panel (1) A continuous-fuzzy matching-ship of 1 and 0 are assigned to the exact match of condition (A) and exclusive miss of condition (H), respectively. The conditions bounded by (A) and (H) receive a fuzzy matching-ship distributed between 1 and 0. Panel (2): The conjugate of the continuous-fuzzy matching ship constitutes the pseudo-missing ship. This will cause (A) and (H) to have a pseudo-missing-ship of 0 and 1, respectively, and the conditions bounded by (A) and (H) receive a fuzzy pseudo-missing-ship distributed between 0 and 1. Panel (4): A continuous-fuzzy missing-ship of 0 and 1 are assigned to the exact match of condition (A) and exclusive miss of condition (H), respectively. The conditions bounded by (A) and (H) receive a fuzzy missing-ship distributed between 0 and 1. Panel (3): The conjugate of the continuous-fuzzy missing-ship constitutes the pseudo-matching-ship. This will cause (A) and (H) to have a pseudo-matching-ship of 1 and 0, respectively, and the conditions bounded by (A) and (H) receive a fuzzy pseudo-matching-ship distributed between 1 and 0. The pseudo-matching ship and missing-ship now accord with each other.

the tangible and intangible aspects of information.

Experimental Methods

This section details the methods implemented for the experiment. The methods are discussed regarding the following aspects of the experimental study: (1) tasking, (2) chronology, (3) judging, and (4) analyzing. The tasking concerns a consensus-based protocol ensuring single-blind control and traceability, agreed upon by the two individuals conducting the experiment, that constitutes target selection, tasking, taskette keeping, and feedback rendering. The chronology documents milestones over the duration of the experiment. The judging details the composition of the judges and the metrics of grading administered. The analyzing formulates the primer for PUNT of AIRY of the two types (Appendix 2) and the approaches for evaluating one special aspect of inter-judge variations notable to be discussed.

A Protocol for Single-Blind Spatially Non-Local Perception of Photographic Targets. Protocols ensuring adequate control of spatially non-local perceptions have been proposed since the 1930s (Rhine, 1946). Protocols of double-blind, triple-blind, and specific to the tasker/perceiver control have also been formulated [6, 7]. The two authors were concerned that a double-blind approach would be prohibitive with the intellectual and material resources and time that were accessible and manageable for conducting this unfunded explorative study. The two authors, however, had agreed to proceed with a single-blind protocol outlined as the following. (1) One author acts to guard the target information (designated as tasker) responsible for controlling the target to be blind to the perceiver until the perceiver obtains the corresponding taskette. (2) The other author (designated as perceiver) acts to acquire the information of the target held by the tasker that is blocked from any capable means of technological access. (3) The target is a photograph of real physical objects. And the target sets are not compiled in advance. (4) The target will be simple and straightforward to interpret while being interesting. This has been necessary to minimize no-hits to encourage the unexperienced perceiver to continue and complete the laborious experiment. Such an arrangement could have reduced the randomness of the target selection. However, considering a novice and unexperienced perceiver who may have low (if not zero) quality of information throughput, it is desirable to use simple and interesting targets to make the contrasts of the information greater to increase the likelihood of an outcome that would encourage the continuation of the experiment. The target selection could certainly be completely randomized in terms of complexity and interest, should this process be tested with experienced perceivers. However, target information presented with a photograph can never be completely random because not all targets may be photographed, and not all useful information of a target (the intelligence) may be present in the photograph. (5) A cloud-based electronic file folder will be used to register a taskette. (6) The perceiver will receive feedback for each taskette recorded. (7) A new target will not be chosen by the tasker until the feedback has been rendered to the perceiver for a taskette. (8) Direct communication between the tasker and the perceiver for matters pertaining to the study will be conducted via email only to timestamp any informational interference or procedural breach for post-hoc analyses.

This single-blind protocol aimed to facilitate the experiment on free-response spatially non-local perception of free-selective photograph targets with feedback-rendered was finalized to the following procedures to be abided to. (1) The tasker chooses a digital photograph of physical objects from any sources he has deemed appropriate. Should the photograph be available on an online site, the URL of the site containing the photograph would be marked (retrospectively tracked, when possible, for the images published with this study). (2) The tasker transfers the electronic file of the digital photograph to a local folder that is unknown to the perceiver. Note: the perceiver does not have the technical know-how to hack into the tasker's electronic device. (3) The tasker notifies the perceiver via email that a target has been chosen. (4) The perceiver attempts to acquire information of the target by retracting to a secular room, calming down, closing eyes, and engaging in a simple meditating procedure presumed to be conducive of non-local access. (5) Immediately after a conclusive attempt, the perceiver hand-draws a simple illustration and hand-writes short descriptive scripts on a single-side of an A4-size paper. The drawing is to take roughly the upper half section of the paper, and the script is to occupy roughly the lower half section of the paper. The paper is to be headlined (handwritten) with the number of the trial in a form of "PK #0XXX", where the XXX ranges from 001 to 100 for the 100 trials, and the date of the completion of the taskette. (6) The perceiver scans the sheet of taskette to a pdf file (scanner model, HP MFN127n) identified with a name of PK0XXX_2022_MMDD (MM for the month and DD for the day) and then uploads that pdf file to the Dropbox folder shared between the tasker and the perceiver. (7) Immediately after procedure 6, the perceiver notifies the tasker via email of the availability of a taskette in the shared folder for examination. (8) The tasker examines that the taskette in the shared Dropbox folder has the same identifier as "PK0XXX" as the target stored in the

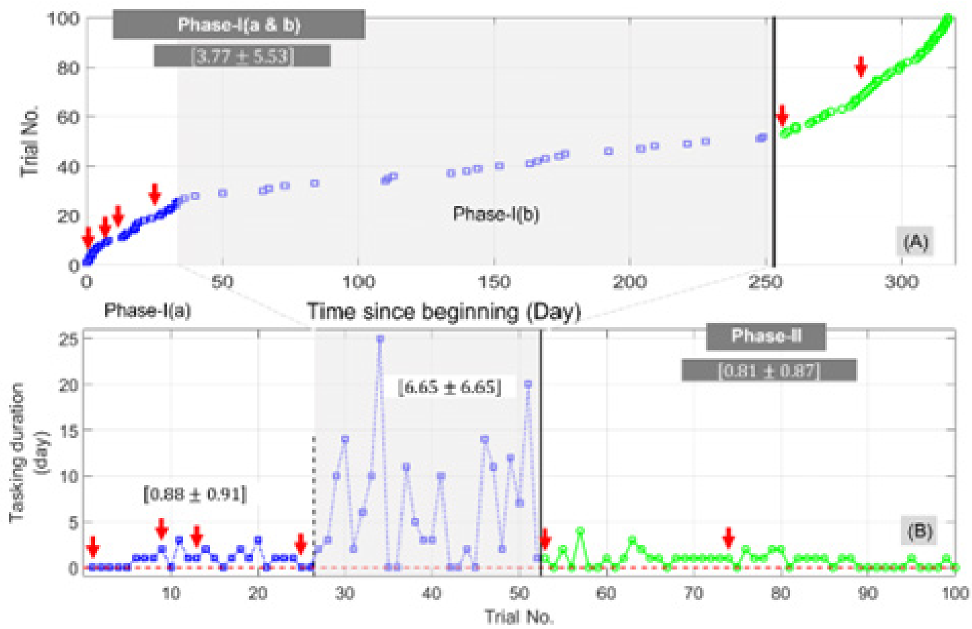

Figure 6. (A) The time of completion of the trials counted from day 0 of determining target #1 to day 317 of completing the feedback of taskette #100. (B) The tasking duration of each trial. Three phases of tasking may be observed: Phase I(a), Phase I(b), and Phase II. The six short downward red arrows designate the trails resulting in taskette grading of greater than 0.5 in both Type-I (tangible) matching-ship and Type-II (intangible) matching-ship. The unshaded numbers in (B) denote the mean and standard deviation of the tasking duration in the phase positioning the numbers. The two unshaded numbers correspond to phase I(a) and I(b). The shaded numbers at the left are averaged for phase I(a) and phase I(b) combined. The shaded numbers at the right are averaged for phase II only. The solid vertical line between Trial No. 52 and 53 indicates a presentation given to SSE.

local folder of the tasker. (9) The tasker uploads the target with the identifier "PK0XXX" to the shared Dropbox folder. (10) The tasker notifies the perceiver via email that the target of the identifier "PK0XXX' is available in the shared Dropbox folder. (11) The perceiver accesses the target of the identifier of "PK0XXX' now available in the shared Dropbox folder to receive the feedback. This completes a trial. (12) The tasker and the perceiver exchange via email assessment of the degree of matching/missing for the trial with the identifier "PK0XXX". Regardless of the outcome of the discussion, no alteration is allowed to a taskette that has already been scanned to pdf and uploaded to the shared Dropbox folder. (13) Only after a trial is registered to be complete by the presence of both the target and the taskette of the same identifier "PK0XXX" in the shared Dropbox folder can the next trial begin with the selection of the next target by the tasker as is defined by the procedure #1 heretofore.

The Chronology of the Tasking of 100 Trials. An experiment of such nature, being agnostic to the conventional understanding of information transmission, perceivably requires a significant commitment in the mentation of both the tasker and the perceiver. The tasker and the perceiver initially were quite uncertain of the prospect of the experiment. Encouraged by the first three trials, the tasker and the perceiver agreed to carry on with the experiment. In total, it took approximately 11 months in the year 2022 to complete the tasking of 100 taskettes. The initial phase of importance and the milestones of the experiment are chronicled in Appendix 3.

Figure 6 tracks the time of completion (A) and the tasking duration (B) of each trial. When applicable, the numbers are presented as XX±YY, where XX is the ensembled average, and YY is the standard deviation (STD) of the ensembled averaging. Counted from day 0 of determining target #1, the feedback of taskette #100 was completed on day 317. Three phases of tasking may be observed from both (A) and (B): Phase I(a) containing trials 1-26, Phase I(b) containing trials 27-52, and Phase II containing trials 53-100. The tasking duration of Phase I(a) for trials 1-26 is [0.88±0.91] days. The tasking duration of Phase I(b) for trials 27-52 is [0.88±0.91] days. The trials 1-52 may be combined as Phase I, considering that a mid-term report on the experiment was given to the *Society for Scientific Exploration* at the completion of 52 trials, as was indicated by the solid vertical line between No. 52 and No. 53. The tasking duration of Phase I(a) and (b) combined, for the trials 1-52 in total, is [3.77±5.53] days. The tasking duration of Phase II for trials 53-100 is [0.81±0.87] days. When counted for the total of 100 trials, the tasking-du-

Table 1. Demography of the individuals who completed the grading.

No. of The Judge	Gender (Male if blank, checked if Female)	Education Level (PhD if checked)	Country of Present Residence (USA if blank)	Nationality at Birth/ Ethnicity by Birth	Open to Psi or Not Antagonistic to Psi Based on Career Training (YES or blank)
01		PhD		Chinese	
02				American	
03			UK	Korean	Yes
04	Female	PhD		Chinese	Yes
05		PhD		Chinese	
06				American	
07		PhD		Chinese	Yes
08				American	
09	Female			American	
10				Japanese	Yes
11		PhD		Chinese	Yes
12	Female			Chinese	
13				Korean	Yes

ration ranged from 0 days to 25 days, making an average of 2.35+4.28 days and a median of 1 day.

The six short downward red arrows designate the trials resulting in taskette grading of greater than 0.5 in both Type-I (tangibility) matching-ship and Type-II (intangibility) matching-ship, as would be shown in a subsequent sub-section.

Judging. After the completion of the 100 trials, invitations for judging were relayed to 18 individuals. Among these 18 individuals, five didn't respond to the invitation. Gradings were returned from the other 13 individuals, among whom 11 were anonymous to each other. The judges consented to have their first initials acknowledged upon the publication or presentation of this work. The judges also agreed to have no disclosure of any targets or taskettes until this work becomes publicly presented. Table 1 displays the demographic information and educational level of the 13 individuals who responded with the grading. Table 1 also includes the likely openness to the phenomenon upon which the judging would be concerned based on the solicitor's personal knowledge of the individual. Table 2 displays the demographic information and educational level of the five individuals who declined to respond. Table 2 also includes the likely openness to the phenomenon upon which the judging would be concerned if the individual would agree to judge based on the solicitor's personal knowledge of the individual.

The 100 taskettes were scanned into a single pdf file, and the 100 targets combined make an electronic file size of approximately 42 MB. Due to the size of the file, cloud storage (Dropbox or Google Drive) was used to transfer the data to the judge and collect the completed judging sheets. The judges were advised to look at each taskette first, then the target, but no control over this was mandated. The judging spreadsheet has checkboxes for two aspects of the trial (a sample is given in Appendix 3). The judges were asked to grade each taskette against the respective target according to the following metrics:

Check-box Row 1:

Shape/structural degree of matching, 0%---100%, at an increment of 10%

To which (what) extent does the information in the sketch resemble the shape/structure of the target?

Check-box row 2:

Feature/functional degree of matching, 0%—100%, at an increment of 10%

Table 2. Demography of the Individuals who did not Respond to the Solicitation of Judging.

No. of the Judge	Gender (Male if blank, checked if Female)	Education Level (PhD if checked)	Country of Present Residence (USA if blank)	Nationality at Birth/ Ethnicity by Birth	Open to Psi or not Antagonistic to Psi Based on Career Training (YES or blank)
01		PhD		Korean	
02		PhD		Chinese	
03	Female	PhD		Indian	Yes
04	Female		Canada	Chinese	
05	Female	PhD		Chinese	

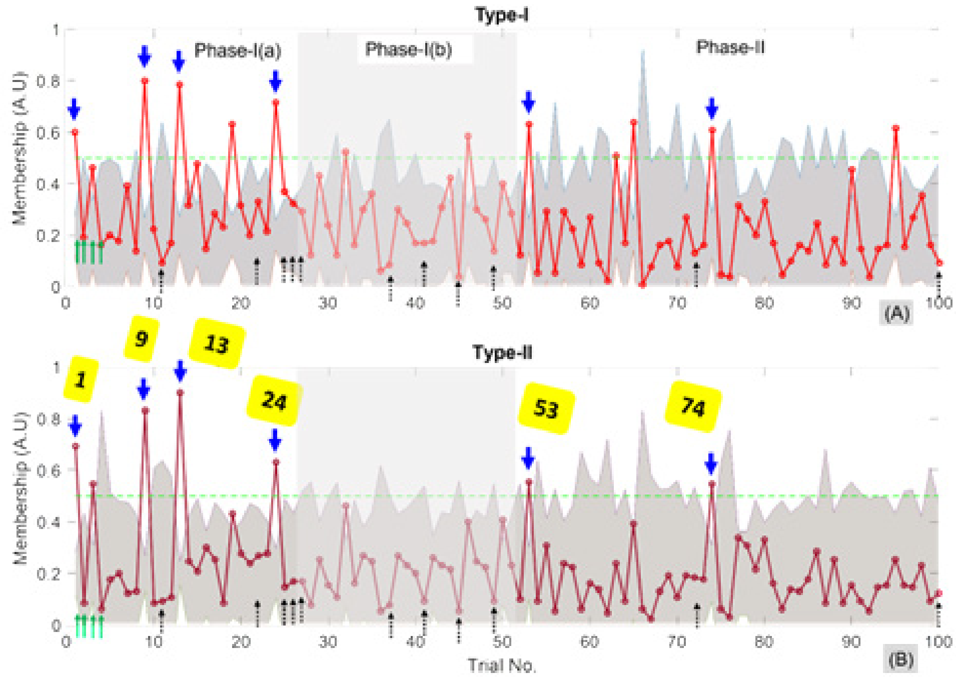

Figure 7. (A) The type-I (tangible) matching-ship of each taskette averaged for all judges (solid line with markers) shaded by the standard deviation of the judging. (B) The type-II (intangible) matching-ship of each taskette averaged for all judges (solid line with markers) shaded by the standard deviation of the judging. The downward red arrows designate the trials resulting in taskette grading of greater than 0.5 in both Type-I (tangible) matching-ship and Type-II (intangible) matching ship. The grade of each trial averaged for the 13 judges. The marker-decorated line is the mean value, and the shade represents the range corresponding to the STD. The six blue downward solid arrows: 1, 9, 13, 24, 53, 74. The four green upward solid arrows: the first four trials------photos taken by K. The 11 dashed upward dashed arrows: 11 non-real objects, drawing, or computer artifacts. The four green arrows: the first four trials------photos taken by K. The 11 upward arrows: the non-real object, drawing, or computer artifacts.

To which (what) extent does the information of the script describe the feature/function of the target?

Post-Judging Analysis. The grades on the WORD formatted spreadsheets returned from the judges were transferred into an EXCEL spreadsheet. The numerical values of the EXCEL spreadsheet were then imported to MATLAB (R2022a, Natick, MA) for data analysis. Statistics analyses, including calculating the powers for a two-sample t-test and ANOVA, were conducted using the commands available in MATLAB or GraphPad Prism 6 (La Jolla, CA). The effect size or z-score was calculated (Ragin, 2000) using the formulae of $z = [(P-p) - 1/(2/N)] / \sqrt{pq/N}$, where P is the observed proportion, p is the benchmark proportion, q equals $(1 - p)$, and $N = 100$ is the number of cases displaying the causal combination. Despite the unknown degree and complexity of the causality of the process engaged in the inforception, the production of a taskette following the generation of a target cannot be treated as entirely non-casual due to the consequentiality. This target-to-taskette causality or sequential occurrence, whatever channel of information transmission it might have engaged in, determines that there is a chance probability for a given amount of information throughput.

RESULTS

The Mean and Standard Deviation of the Grades of the Two Types Received by Each Trial When Averaged for the 13 Judges

Figure 7 displays the gradings of each trial when averaged for the 13 judges. The top panel is for the type-I or the tangibility aspect of the matching. The bottom panel is for the type-II or the intangibility aspect of the matching. On each panel, the solid line marked with circles denotes the mean value of the grade of that trial averaged over 13 judges, and the shaded area represents the standard deviation of the grade of that trial by the averaging. The lightly shaded segment marks Phase-I(b), containing trials 27-52.

The six downward blue arrows designate the trials resulting in taskette grading of greater than 0.5 in both Type-I (tangibility) matching-ship and Type-II (intangibility) matching ship, as would be shown in a subsequent sub-section. Those six trials are also observed to have much smaller STD compared to the mean value, indicating that consensus was reached among the judges in terms of the taskettes of those six trials receiving relatively high-

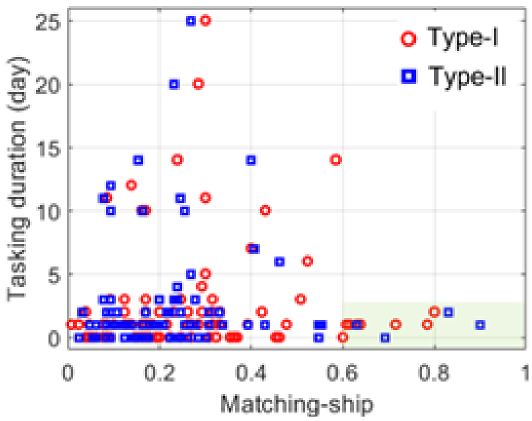

Figure 8. The scatter plots of the targeting duration versus membership of each trial. The small, green-shaded area contains trials receiving matching grading greater than 0.6 of type-I or type-II matching-ship.

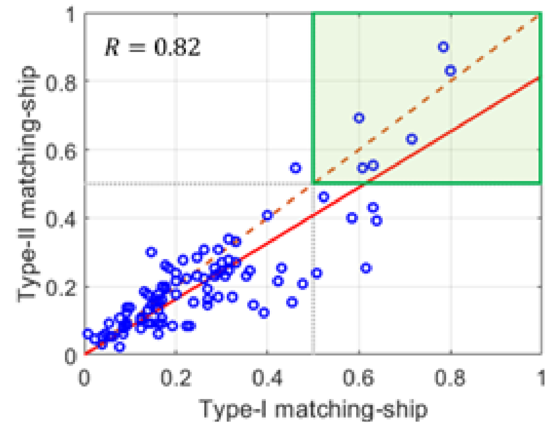

Figure 9. The correlation between type-I and type-II matching. The dashed line running exactly diagonal corresponds to a perfect correlation. The red solid line is a linear regression to the scatter plots that results in an *R*-value of 0.82, indicating a strong correlation.

er grades in both types of matching to their respective targets. The four small solid upward green arrows point to the first four trials, of which the targets were the photograph taken by the tasker of items of his own possession. The eleven small dashed upward black arrows are the trials of which the targets were either simple artistic drawing or computer-rendering, making the trial non-compliant with the protocol requiring photographs of real physical objects as the target.

The Type-I and Type-II Grade-Average Versus The Duration of Tasking

Figure 8 scatter-displays the duration of tasking of each trial and the corresponding grades received in type-I (red circle) and type-II (blue square) matching. The small, green-shaded area contains trials receiving a grade of matching greater than 0.6 in either type-I or type-II. Five trials (9, 13, 24, 53, 74) received >0.6 grading in the type-I matching. Four trials (1, 9, 13, 24) received >0.6 grading in the type-II matching. None of the trials receiving matching-ship greater than 0.6 had a tasking-duration of longer than two days.

The Correlation Between the Mean Grade of Type-I Matching and the Mean Grade of Type-II Matching for All 100 Trials

Figure 9 scatterplots the mean grade of type-I matching versus the mean grade of type-II matching of each of the 100 trials. The dashed diagonal line corresponds to a perfect correlation between the values of the abscissa and ordinate, or the identical number for the two types of matching-ship. A linear regression running through the origin resulting in the solid line corresponded to a correlation coefficient of $R = 0.82$, indicating a notable correlation between the two types of matching-ship graded on each trial. The upper right quadrangle isolated six taskettes that have received a grading of higher than 0.5 in both types of the matching-ship. They are trials 1, 9, 13, 24, 53, and 74. Because the targets were freely selected, despite being simple, it would have been impractical to estimate a benchmark proportion because the pool was arbitrarily large. Should the process be random but pertain to a fixed number of permutations or probability, the benchmark proportion or chance expectation can be the number of taskettes making higher than 50% grades in both type-I and type-II aspects of matching. Instead, if assuming a benchmark proportion (chance-expectation) of 3 out of 100 trials (p=0.03), having six taskettes in the first quadrangle, as is shown in Fig. 9, giving P=0.06 corresponds to an effect size of 1.47 for a sample size of N=100. If the benchmark proportion (chance expectation) is 2 out of 100 trials (p=0.02), having six taskettes in the first quadrangle, as is shown in Fig. 9, giving P=0.06 corresponds to an effect size of 2.5 for a sample size of N=100. If the benchmark proportion (chance expectation) is 1 out of 100 trials (p=0.01), having six taskettes in the first quadrangle, as is shown in Fig. 9, giving p =0.06 corresponds to an effect size of 4.52 for a sample size of N=100.

The Six Trails Receiving > 0.5 Grading in Both Type-I and Type-II Matching-Ships

The taskette and the corresponding target of the six trials receiving >0.5 grading in both type-I and type-II aspects of matching are presented in **Fig. 10**. (A) to (F) present respectively the trials 1, 9, 13, 24, 53, and 74. The following details the trials and the grading outcomes.

(A). Target #0001 was set on Jan. 30, 2022. Taskette #0001 was available the same day. The target was a digital photograph of an image from the screen display of the computer monitor of the tasker. The original image of this target was an image accessible from (Amazon.com, 2023). The script of the taskette reads "some kind of monument, round base, tall point peak". The taskette received a type-I grading of [0.60±0.23] and type-II grading of [0.69±0.29].

(B). Target #0009 was set on Feb. 04, 2022. Taskette #0009 was available on Feb. 06, 2022. The target was a digital photograph obtained from (Art.com 2023). The script of the taskette reads, "A sense of human-like figure keeps coming in, a feeling of vastness and emptiness, and floating. An astronaut in space or somewhere?". The taskette received a type-I grading of [0.80±0.27] and type-II grading of [0.83±0.30].

(C). Target #0013 was set on Feb. 14, 2022. Taskette #0013 was available the next day. The target was a digital photograph similar to the one in (Sutton, 2020) and obtained from an open source (intractable retrospectively). The script of the taskette reads, "Some kind of "extruded" elliptical structure on top of a long-haul base. --- Submarine?". The taskette received a type-I grading of [0.78±0.29] and type-II grading of [0.90±0.21].

(D). Target #0024 was set on Mar. 04, 2022. Taskette #0024 was available the next day. The target was a digital photograph obtained from (Skyshed-Observatories, 2023). The script of the taskette reads, "A radiating pattern, blueish, something like the star-wars movie when the spaceship speeds up to cross the speed-barrier or a sonic-boom type pattern (Cerenkov radiation), something radiating (atomic nuclear reactor), a clear boundary of regular shape." The taskette received a type-I grading of [0.72±0.21] and type-II grading of [0.63±0.30].

(E). Target #0053 was set on Oct. 14, 2022. Taskette #0053 was available the next day. The target was a digital photograph obtained from (Facebook.com, 2023). The script of the taskette reads, "Felt like waterfall, long, wide, curved sheet, plane of moving stuff, fluidic, turbid." The taskette received a type-I grading of [0.63±0.21] and type-II grading of [0.55±0.28].

(F). Target #0074 was set on Nov. 17, 2022. Taskette #0074 was available the next day. The target was a digital photograph obtained in open resources (intractable retrospectively). The script of the taskette reads, "A large (gigantic) oval, elliptical shape like a rim upon a flat surface, like an open mine, that recedes to deep but smaller platform." The taskette received a type-I grading of [0.61±0.27] and type-II grading of [0.55±0.30].

Type-I and Type-II AIRY Averaged for all Judges

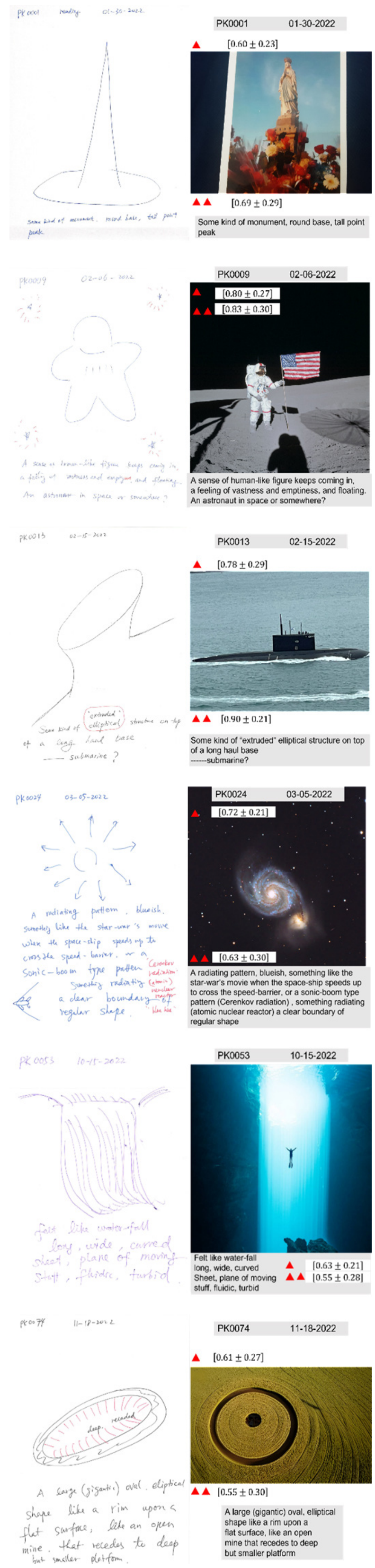

Figure 10. The target and taskette of six trails, 1, 9, 13, 24, 53, and 74.

Figure 11 (A) displays the histogram of the grades of type-I and type-II matching. The histogram of the grades of type-I matching over [0, 1] at a tick of 0.1 is displayed with respect to an abscissa of the matching-ship at the right lateral to the middle line. The histogram of the grades of type-II matching over [0, 1] at a tick of 0.1 is displayed with respect to an abscissa of the negated matching-ship at the left lateral to the middle line. Since the middle line marks a matching ship of 0 or complete miss, the pattern shown in (A) is a ***missing-centric*** AIRY that is also referred to as an ***agonistic*** AIRY. In (B), the histogram of type-I grades over [0, 1] at a tick of 0.1 is displayed with respect to an abscissa of the complementary of the matching-ship of 1 (i.e., the missing-ship) at the right lateral to the middle-line. The histogram of the grades of type-II matching over [0, 1] at a tick of 0.1 is displayed with respect to an abscissa of the complementary of the negated matching-ship of -1 (i.e., the negated missing-ship) at the left lateral to the middle-line. Since the middle line marks a matching ship of 1 or exact match, the pattern shown in (B) is a ***matching-centric*** AIRY that is also referred to as an ***antagonistic*** AIRY. The two lines present in (C) are the smooth-line or monotonically continuous approximation to the two profiles in (B). The peak amplitudes of the two lines are identical to the peak amplitudes of the two profiles to which they are approximated (A_{max} =0.3662 for type-I and A_{max} = 0.4623 for type-II). The two lines are fitted by $(A_{max} - A_{min}) * exp(-K\&) + A_{min}$, where A_{min} = 0.04 and "&" represents the variable of the abscissa. The damping rate and the minimal values ending at the middle line were manually adjusted to make the monotonically smooth curve approximative to the respective lines of (B). The two lines in (C) are called the smooth antagonistic AIRY. The magnitude of the Fourier transform of the respective AIRY lines of (C) are displayed in (D) by taking the logarithm over a base of 10 and then multiplied by 20 to render dB as the scale along the ordinate. The resulting profile of (D) is then the PUNT. Of the PUNT, the P refers to "partitioning" in two ways: the U stands for "undulation" considering that mainly low-frequency information would be transferable, and NT specifies "net transfer" in referring to the relative throughput of the information complexity of the target in both type-I and type-II aspects.

Indication of Target Interference

Accidentally, two trials turned out to have one taskette be compared against two effective targets due to the mishandling of the target selection by the tasker. The two trials, however, differ in terms of how the two targets could have been associated with the trial.

Indication of Target Interference Due to Switching of One Target to the Other While Meant for the Same Trial. Target #0011 was set on Feb. 10. 2022. Taskette #0011 was available on Feb. 13, 2022. The target was an artistic rendering of an automobile (source intractable retrospectively), as shown in **Figure. 12** (A). The script of the taskette reads, "what keeps coming in is a kind of spiral feeling, one end smaller, the other end greater, like

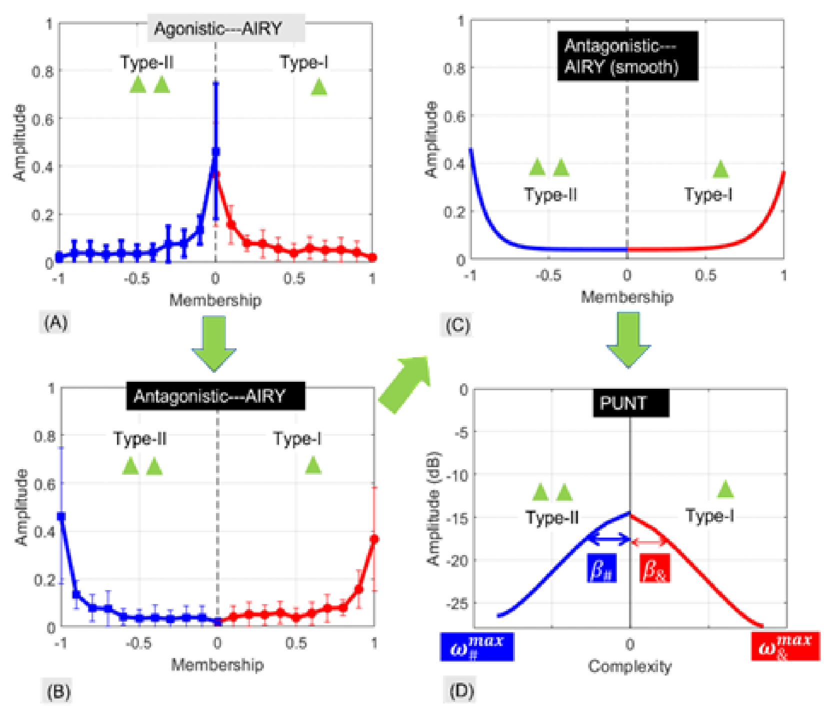

Figure 11: (A) Agonistic AIRY. (B). Antagonistic AIRY. (C) A smooth (monotonically continuous) approximation of the antagonistic AIRY. (D) PUNT.

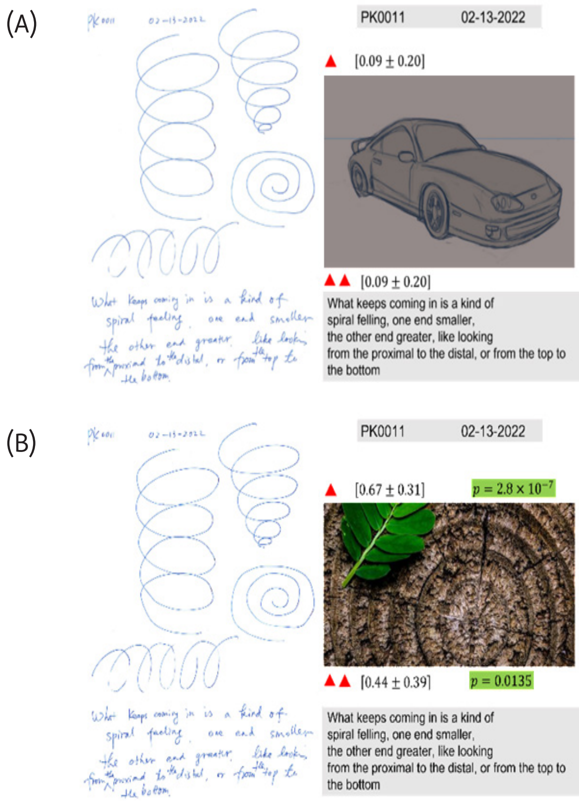

Figure 12. Target interference occurring to trial #11.

looking from the proximal to the distal, or from top to bottom." The taskette received a grading of type-I matching-ship of [0.09±0.20] and a grading of type-II matching-ship of [0.09±0.20].

However, during the post-trial discussion between the perceiver and the tasker, it was revealed that the target #11 was switched from a previously chosen one (Cyclewand.com, 2023), as shown in Fig. 12(B), for the same trail #11 as was meant by the tasker. This would correspond to the presence of two sequential targets chosen for the same trial by the tasker when the perception task was performed. In comparison to this earlier target, taskette #11 received a type-I grading of [0.67±0.31] and type-II grading of [0.44±0.39]. The type-I grading of the taskette #11 with respect to this target chosen earlier is substantially higher than that with respect to the later chosen target, with p = 2.8 x 10^{-7} (sample size 13). The type-II grading of this taskette #11 with respect to this target chosen earlier is substantially higher than that with respect to the later chosen target, with p=0.0135 (sample size 13). The better matching of the taskette to the target chosen earlier is statistically significant.

Indication of Target Interference Due to Pre-Mature Selection of a Target for the Next Trial While the Previous Trial was Incomplete. Target #0079 was set on Nov. 24, 2022. Taskette #0079 was available on Nov. 26, 2022. The target was a large cross structure (Walmart.com, 2023), as shown in **Figure. 13**(A). The script of the taskette reads, "Two circular spaceship like structure that however, seems to have a cross-section, or like two wheels that cross each other. The crossing-feeling is at odds with the circular feeling". The taskette received a type-I grading of [0.20±0.26] and type-II grading of [0.22±0.31].

However, during the post-trial discussion between the perceiver and the tasker, it was revealed that targets #79 and 80 were mixed due to the tasker not following the protocol of not selecting the target for the next trial until the completion of the present trial with feedback. Target #80 (Pinterest.com, 2023), as shown in Fig. 13(B), was chosen shortly after target #79 was chosen and meant for using as the target for the next would-be trail #80 prior to the perceiver being informed of the selection of target #79 and unaware of the presence of the target for the next would-be trial #80. This could correspond to the presence of targets for two consecutive trials when the perception task for the former of the two was incomplete. This was a violation of the protocol, dictating that the feedback be given before the selection of the target for the next trial. And because of the discordance to the protocol of trial #79, the perceiver did not complete task-

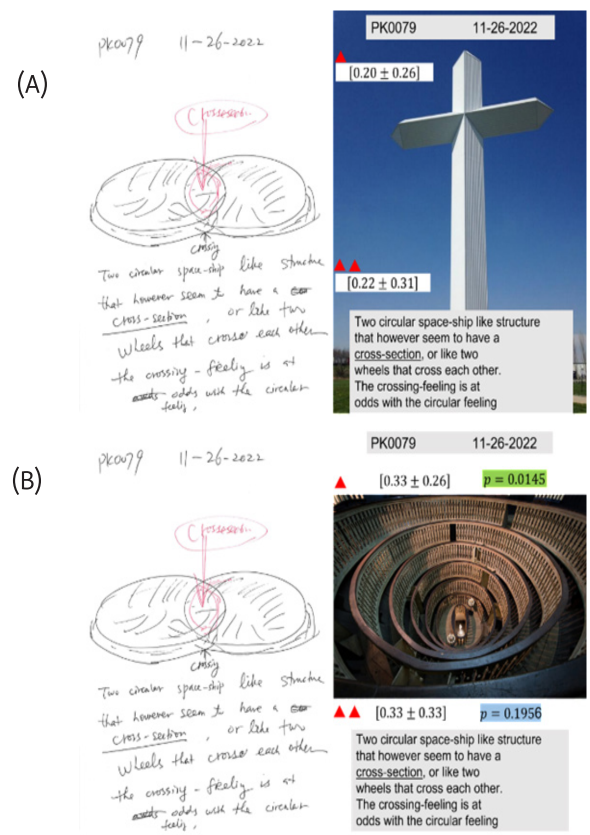

Figure 13. Target interference occurring to trails #79 and #80.

ing #80, but taskette #79 was graded against both target #79 and the target meant for #80.

When compared to the target #80, taskette #79 received a type-I grading of [0.33±0.26] and a type-II grading of [0.33±0.33]. The type-I gradings of taskette #79 with respect to the two targets differ by p=0.0145 (sample size 13). The type-II gradings of this taskette #79 with respect to the two targets differ by *p*=0.1956 (sample size 13).

Inter-Judge Variation Based on the Openness to Inforception. Among the 13 judges, six can be said to have significantly different and open views on the matter of inforception compared to the other seven judges. These six individuals have either a career in an inforception-relevant program or had written communication expressing openness to phenomena like inforception in the forum that the authors have access to. These six judges may be separated from the other seven judges in terms of their openness to inforception. The comparison of the averaged grading of the same pool of the 100 trials by the judges of two groups, as displayed in **Figure. 14**, reveals a statistically significant difference in the overall scores they graded on the same pool of 100 trials, based on 2-way ANOVA of a null hypothesis on the openness to inforception. The difference between the grading of the two groups is quite appreciable for the number of trials receiving a 0 matching-ship or complete-missing. More than 55% and 60% of the trials were graded as total miss in, respectively, the type-I and type-II aspects of the matching by the group of agonistic judges. In comparison, less than 20% and 25% of the trials were graded as a total miss in, respectively, the type-I and type-II aspects of matching by the group of judges that may be open to inforception.

DISCUSSION

A transmission system cannot be reconstructed to full capacity in the absence of its transfer function or MTF being fully and completely identified. Likewise, the uncanny channel of spatially non-local perception, if it does exist, is hardly comprehensible unless its effect on the transmission of information sensible by human perception can be characterized. The inforception in a system perspective can be argued to resemble a black box, of which the input can be controlled, and the output can be measured to allow characterizing the transmission characteristics of the black box using well-established principles of system identification. System identification is done by quantifying the response of a system at various levels of information complexity that can be precisely controlled at the input and accurately measured at the output. Such a requirement that is routine to the identification of a physical system of information transmission, however, does not seem to apply to the channel thought to be responsible for spatially non-local perception, likely due to two factors. One factor is that the information transmission by inforception is quite poor in terms of objectivity. The other factor is that the information transmissible might have the subjectivity that interplays with the low-quality of the objectivity. This experiment has attempted to understand if any input-output relationship associated with information transmission by an unexperienced perceiver expected to produce little or no throughput of information would be inconsistent with the present knowledge of **spatially local and temporally causal channels.**

Some Thoughts on the Band-Limited Information Throughput of Inforception

The Physical Implications of AIRY and PUNT Functions. It is worth noting that neither of the authors is unfamiliar with the literature reports of non-local information requisition. However, both authors are cautiously skeptical of the properties or mechanisms of non-local

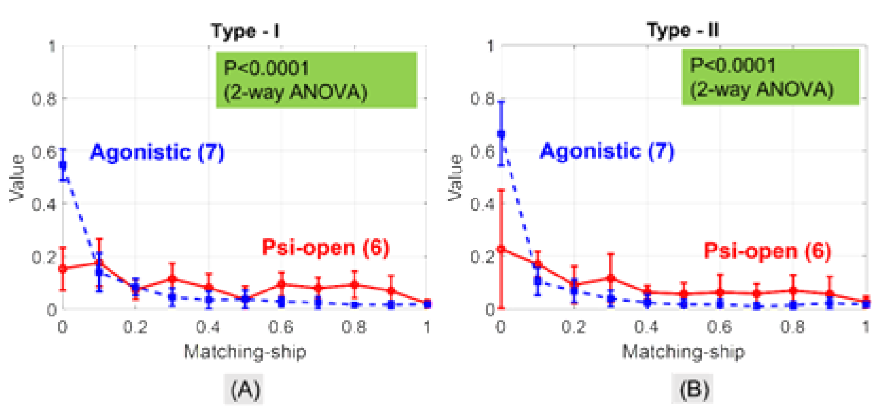

Figure 14. Comparison of the gradings by six judges who may be open to inforception versus that by the seven judges of likely skeptical of inforception. (A) Grading of the type-I matching of the 100 trials. (B) Grading of the type-II matching of the 100 trials.

information requisition seemingly having been demonstrated by several studies (Jahn, 1980; Puthoff & Targ, 1976; Targ & Puthoff, 1974; Targ, 1994). The non-local or anomalous information requisition shall refer to the outcome of acquiring information that is inconsistent with any known path of physical or instrumental or informational channel allowed by the current technology (Piao, 2022) and the technical capacity of the perceiver. Regardless of the anomaly of the information transmission, the information available as the outcome of the transmission makes an apparent amount of information throughput. The apparent information requisition yield (AIRY) introduced refers to the relative amount of information of the taskette over that of the target.

Any channel of information access or transmission is constrained by an inherent passing bandwidth of the channel. If the information transmission of the geometrical properties is concerned, the limiting quality of the transmission is routinely characterized by the MTF. The MTF specifies the resolution-limit of the spatial pattern or the smallest sharp pattern that is visually discernible, that can be retained, or equivalently, the smallest point object that can be resolved. The MTF of a system of transmitting visually discernible information is the spatial Fourier transform of the PSF of the system of transmission, which is practically the image obtained for an ideal point-target - one that is infinitely small in the size but infinitely large in the contrast over the background. The lower limit of the details of a real target that can be resolved by a visual-information transmission system like a satellite camera corresponds to an upper limit or maximum bandwidth of the information pattern that can be contained by the information transmission system.

Since the MTF of a visual-information transmission channel determines the target information that can be resolved, there are two apparent implications of this band-limitation of information transmission. The first implication concerns which target may be resolved by a given visual-information transmission channel or, equivalently, the upper limit of the target's complexity that can be resolved by a visual information transmission channel. For example, a satellite camera at a given orbiting altitude that has a ground resolution of 0.1 meters may be able to distinguish two adults standing closely next to each other but will be unable to separate two ants crawling closely next to each other. The two ants crawling closely next to each other are more complex than two adults standing closely next to each other, in the sense of the spatial pattern or the "busy-ness" that is transferable onto the satellite imagery. The second implication concerns which visual-information transmission channel can resolve a given target, or equivalently, the lower limit of the maximum bandwidth of the visual information transmission channel that is needed to retain a target's full complexity for complete recovery of the target information. For example, to resolve two adults standing closely next to each other, one would use the satellite camera having a ground resolution of 0.1 meters over a satellite camera that has a ground resolution of 1 meter at the same orbiting altitude. The MTF or the resolution of the satellite camera characterizes whether the tangibility or the physical processability of the information of a target can be resolved on the imagery. But what about the transmission or the retainment of the "intangibility" of a target onto the imagery? For example, how does one tell if the two adults or two ants on the ground are engaged in picking a fight with no weapons other than their bodily extremities? Isn't that intangibility intelligently more significant or interesting than the tangibility of the information transmissible by the satellite camera channel?

In a system for information transmission, the spectrum of the information at the output is the production of the spectrum of the information at the input multiplied by the spectrum of the transfer function or the MTF. Given a spectrum of the output that is lower in the maximum complexity of the information than that of the input, the degradation of the information must be caused by the transfer function whose maximum passible complexity is lower than the maximum complexity of the information of the input. The PUNT, as is discussed, may be treated as comparable to, but not the same as, an MTF whose maximum passable frequency is no greater than the maximum information complexity of the input such that the output will have an information complexity no better than that of the input. PUNT, thus, may be treated as relative MTFs assessed for the combined passage of both tangible and intangible aspects of the information by normalizing the absolute MTF of the information passage with respect to the uniform transmission up to the maximum complexity of the pool of targets.

We note that this present study may be extended in the future towards other data generated in similar or somewhat variant ways. This idea of AIRY, which is mathematically equivalent to a relative modulation transfer function, may be what is needed to facilitate future analyses. The authors do not see the existence of a currently agreed terminology in this community that will carry all the parametric features that this term seems to offer. The mathematical viability of this function may be tapped upon towards more quantitative analyses, leading to a more objective understanding of the subjective aspect and the fuzzy feature of the spatially non-local perception.

What Might Be in Play for the Band-Limited Infor-

mation Throughput of Spatially Non-Local Perception? Regardless of the means of information transmission specific to a physical object with visually discernible details, it may always be viable to compare the complexities of the information contained between photographic imagery and the physical scene or object from which the photograph was taken. Similarly, whatever has been in the process to produce a copy of a photographed object, the faithfulness of the information contained by the copy with respect to the original object from which the photograph was taken can be assessed. In the case of spatially non-local perception, although the mechanism of the non-locality is unknown or unacknowledgeable at the present, the existence of the spatially non-locally perceived outcome can be subjected to comparison against the target. For the sake of simplicity of referring, we have introduced a new objectivity-informed term of "taskette" to denote the individual result of the spatially non-local perception that has been documented permanently by means of physical information storage such as a drawing or a script of descriptive words and sentences in a hard-copy or electronic medium of perpetuity. The "taskette" can serve as the counterpart of the term "target", which has hereby specified the objective-entity documented permanently by means of physical information storage, such as digital photograph or electronic memory, with which the spatially non-local perception could be tasked.

The relative amount of information retained on a taskette infers that if the information is complete, the bandwidth of the information transmission must not be smaller than that of the complete information of the target. If the information of the taskette is incomplete with respect to that of the target, the useful bandwidth of the information transmission must be smaller than that of the complete information of the target.

Among several theories proposed for any mechanism that could have been involved in spatially non-local perception, one hypothesized that what could have affected the outcome is the gradient of the Shannon entropy (May et al., 2000), which may help explain why targets of strong interest appeared to have led to higher AIRY outcomes. Whereas this present experiment could have shown that the more interesting the primary object or concept or event portrayed in the target photograph was, the more likely the inforception would receive a higher score in both the type-I and type-II aspects of information. Conversely, the duller the primary object, concept, or event portrayed in the target photograph was, the more likely the inforception would receive a lower score in both the type-I and type-II aspects of information. The gradient of the Shannon entropy may be a viable metrics to quantify the changes of the information in the target in the field-of-view of the photograph, which, however, will unlikely indicate the aspect of the interest that would be difficult to perceive. It may be wise to project that there is likely another aspect of the information relaying in the inforception or spatially non-local perception, that cannot be reliably perceived without the engagement of conscious awareness in anomalous states. The path to understanding what underlies the spatially non-local perception may not be clear until the anomalous state of conscious awareness could be at least qualitatively incorporated into the conditions to be controlled, possibly according to another appropriate fuzzy scale. Only after all conditions indispensable to the development of a measurable event are counted on can the cause of the measurable event be accounted for.

How May the Target Interference be Interpreted, and What Improvement of the Protocol May Help Test That Hypothesis? What might this simple single-blind experiment unveil? Whereas the six trials receiving a grading higher than 0.5 in both type-I matching and type-II matching may be intriguing, the trials that have had target interference could be more informative as to what might or might not have been in play with the inforception. One would argue that the two trials indicating target interference were not much different in terms of the process. However, it may be intuitive and imperative to conjecture how the indicated target interference may be unique to only the single-blind protocol, should there be a telepathic overlay interfering with the unconventional perception. Unfortunately, only two trials showing any indication of the target interference cannot be conclusive.

How is it possible for one's conscious awareness to access information blocked by ordinary sensory transmission? What underlies non-local conscious awareness specific to remotely, non-locally perceiving the present-day targets inaccessible to conventional or normal sensory means, including technology-assistance? A major limitation of this experiment is the control of being single-blind. The protocols proposed in Appendix 4 may be implemented to introduce additional controls in target selection to help identify or reject possible factors of inforception based on the correlation with target interference. Additional controls in target selection require the engagement of a moderator to moderate the tasker's access to the target and the perceiver's knowledge of the tasker's accessibility to the target. With the additional controls leading to 4 groups of various levels of control, the taskette-target matching/missing can be compared between the two targets presenting target interference. The outcomes of these four groups of approximately equal size (~100 trials per group) can be analyzed using statistical approaches such as ANOVA to deduce which mechanistic path may be more probable in producing statistically significant different matching of the taskette versus the two targets presenting interference. The outcomes may help determine if the information throughput of the inforception experimented in this exploratory single-blind test has had any correlation with the awareness of the tasker of the target. That may help assess if a telepathic overlay could have been a factor in the single-blind protocol practiced in this study to have caused the target interference and the differences in the comparisons between the two associated targets in the two trials.

CONCLUSIONS

A single-blind experiment has been carried out between the two authors for the purpose of examining the tangible and intangible aspects of information that may be presented on the taskettes with respect to the corresponding targets in spatially non-local perception. The experiment of 100 trials was conducted as free-responsive spatially non-local perception of free-selected simple photograph targets. One author acted as the tasker who chose a photograph target, and the other author acted as the perceiver who attempted to gain information about the target. Feedback was provided to the perceiver prior to selecting a new target by the tasker. Thirteen judges completed gradings based on a metric that profiles apparent information requisition yield (AIRY). The AIRY refers to the two aspects of the matching of a taskette with respect to a target based on fuzzy-scale grades over 0% to 100% with an increment of 10%. The type-I or "tangibility" aspect of matching assessed the extent of the resemblance of a taskette to the target in terms of the shape or structural details of the depicted primary physical entity. The type-II or "intangibility" aspect of the matching appreciated the degree of the reconstruction of a taskette to the target in terms of the feature or functionality of the depicted predominant physical entity. A total of 6 taskettes received higher than 50% grades in both type-I and type-II aspects of the matching with their respective targets. This outcome corresponds to an effect size of 1.47 when assuming an arbitrary hypothetical chance-expectation, giving a benchmark proportion of 3 out of 100 trials to produce higher than 50% grades in both type-I and type-II aspects of matching. The completement-set of the two-way missing centric AIRY becomes a two-way matching-centric AIRY. The two-way Fourier-like transform of the two-way matching-centric AIRY converts to a partitioned undulation net transfer (PUNT) function that may be useful in characterizing the information throughputs of the yet-to-be-understood channel manifesting spatially non-local perception. Among the observations that may bear further interest the presence of target interference and what may have caused the target interference warrant investigations.

ACKNOWLEDGMENTS

The authors are grateful to the individuals who offered judging for this experiment. The judges are identified by the first initials only and ordered alphabetically according to the last initial: J. G., Y. J., X. J., J. L., B. M., H. O., A. P., Y. P. (Ph.D.), K. R., T. S. (Ph.D.), H. T. (Ph.D.), B. Y. (Ph.D.), and R. Y. (Ph.D.). This manuscript is based upon a full-member workshop presented by one author (DP) to SSE on Oct. 14, 2022. DP thanks the audience of that workshop for their insightful discussions and warmest encouragement. The authors also thank the anonymous reviewers for painstakingly examining the methodologies and results of this study to provide highly encouraging and specifically thought-provoking comments and critiques that have helped revise the manuscript.

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APPENDICES

Appendix 1: General Principles of Point-Spread-Function (PSF) or Modulation-Trans-Function (MTF) in Quantifying the Quality of Information Relay

An ideal system of information transmission is one relaying 100% of the information of the target at the output. For a system relaying structural details, the ideal transmission corresponds to the taking-in of an infinitely small and infinitely sharp point as the target, then producing an equally infinitely small and infinitely sharp point as the output. Any practical system, however,

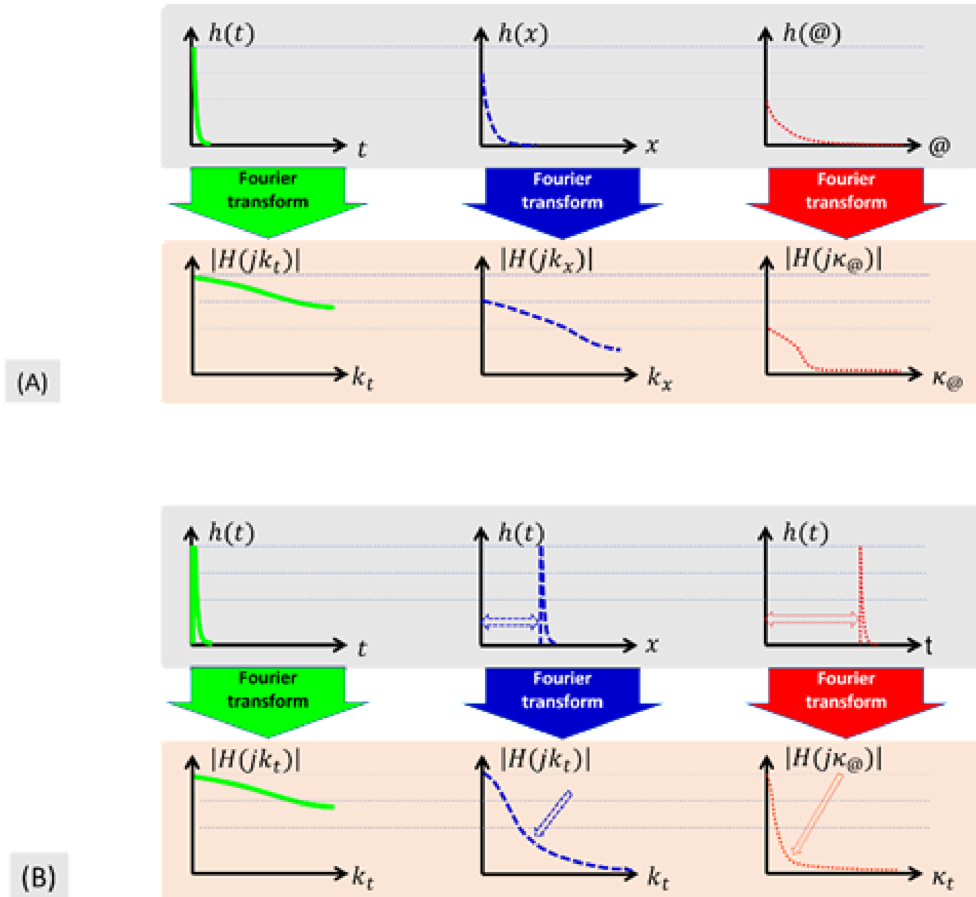

Figure A1. Two associations that are well-known between the PSF and MTF and projectable to any pairs connected by Fourier transform. (A) A very narrow PSF at the origin (left column) corresponds to a near-flat MTF as a function of the complexity of the information. A reduced- amplitude and wider PSF at the origin (middle column) corresponds to a smaller and more damped MTF as a function of the complexity of the information than that of the left column. An even lower-amplitude and wider PSF at the origin (right column) corresponds to MTF that is further smaller and damped over higher complexity of the information than the one at the middle column. (B) demonstrates the effect of positive shift of the PSF on the pattern of MTF as is also common to the three types of indices of (A). A very narrow PSF at the origin (left column) corresponds to a near-flat MTF as a function of the information complexity. A same-amplitude and positive-shifted or delayed PSF (middle column) corresponds to an MTF damped more at the higher information complexity. A sample-amplitude even more delayed or shifted PSF (right-column) corresponds to an MTF that is further damped at the greater information complexity.

having to afford the loss of the information throughput, when taking in an infinitely small and sharp point as the target, produces a spread-point as the output that has a finite size and finite sharpness. The greater the spread of the point and the lesser the sharpness of the point at the output, the greater the loss of the information with the throughput. The degree of the information loss, or equivalently the extent of the information carry-through of a system that relays structural information, is quantified by functions such as point-spread-function (PSF).

The MTF is mathematically the amplitude of the Fourier transform of the PSF. What Fourier transform does is like what a music conductor analyzes when conducting a symphony----knowing exactly the types and skills of instruments played. The conductor distinguishes a very subtle difference of music that may make no difference to ordinary ears. Likewise, Fourier transform breaks a signal or pattern apart to its delicate components that collectively characterize the pattern. An ideal PSF representing an ideal information throughput or zero-loss information passage corresponds to an MTF of equally unattenuated transmission of the patterns of any complexity. The PSF of a practical channel representing lossy (i.e., less than 100%) information throughput corresponds to an MTF of unequally attenuated transmission of the patterns of different complexity, most commonly lesser transmission of more complex patterns.

The MTF or the PSF of a system of information throughput in relaying an ideally sharp point can also be considered as characterizing how the system responds to a localized stimulation. Localization means that an entity can be defined at a fixed index of something that other-wise varies. That index obviously contains the moment of time or temporal index and the spatial coordinate or the spatial index. Whereas for a process that cannot be explained by excluding an effect somehow associated with conscious awareness, an index of consciousness as a simple indicator of the complexity of the neuronal activities that will be ultimately responsible or represented for the awareness may be considered on a model-perspective [18]. The inversion of any of the indices of localization will then confer a complexity of the information associated with that dimension of the index [18]. For example, the temporal frequency is the inversion of the time-index, and the spatial frequency is the inversion of the spatial-index, which may be factored by a ratio of 2. Likewise, one may attribute the inversion of an index for consciousness to represent the complexity of conscious awareness that may span over zero to infinity, with zero specifying no involvement of conscious awareness and infinity designating the maximal scale of conscious awareness that is meaningful only mathematically.

Figure A1 exemplifies two associations between the PSF and MTF, with the patterns indistinguishable among the three types of indices considered. (A) demonstrates how the width of the PSF relates to the pattern of MTF. A very narrow PSF at the origin (left column) corresponds to a near-flat MTF as a function of the complexity of the information. A reduced-amplitude and wider PSF at the origin (middle column) corresponds to a smaller and more damped MTF as a function of the complexity of the information than that of the left column. An even lower-amplitude and wider PSF at the origin (right column) corresponds to MTF that is further smaller and more damped over higher complexity of the information than the one at the middle column. The width of the PSF thus dictates the sharpness of information transmittable by the system. A broader PSF results in a blurrier information transmission, which appears as a greater loss at the higher information complexity depicted as the reduction of the amplitude of the MTF at a greater value of the complexity of information. And (B) demonstrates the effect of positive shift or delay of the PSF on the pattern of MTF, as is also common to the three types of indices of (A). A very narrow PSF at the origin (left column) corresponds to a near-flat MTF as a function of the information complexity. A same-amplitude but positively shifted or delayed PSF (middle-column) corresponds to an MTF that is damped more at the higher information complexity than the former one. A same-amplitude and even more delayed or positively shifted PSF (right-column) corresponds to an MTF that is further damped at the greater information complexity. The degree of damping at higher information complexity corresponds to the amount of positive shifting or delay of the impulse of the information index from the origin. Any delay corresponds to a memory of the past of the system output, resulting in distortion of the ideally sharp response to the current value of the input. The MTF thus specifies the relative throughput of the information between the input entity and the output entity. And comparing the spectrum of the output versus that of the input helps identify MTF. A distortion of information by transmission can be caused by either attenuation but without delay or no-attenuation but with delay.

Appendix 2: Apparent Information Requisition Yield (AIRY) and Partitioned Undulation Net Transfer (PUNT)

A loss-less information transmission will have all information of targets of any level of complexity transmitted with no distortion. Whereas an information transmission channel with a bandwidth narrower than the maximum information bandwidth of the most complex target will have the information throughput band-limited with respect to the true bandwidth of the target information. In the context of spatially non-local perception, the degree of information transmission regarding a single complex target shall be consistent with the extent of information transmission of many targets with random levels of complexity. This is analogous to the equivalence between tossing 1 million coins at once and tossing one coin a million times in producing the same permutation-associated chance probability of 50% of head or tail. The ensembled probability assessed over a large population or sample size translates to the chance probability of an individual.

To understand the quantitative need to assess the information throughput pertinent to spatially non-local perception that is extremely unlikely to be exact or loss-less and most likely to be highly lossy if passing anything, we first consider conditions of all (assuming 100 for convenience) taskettes receiving an identical grade as is shown in **Fig. A2** for either the type-I or type-II property. (A) The thick solid arrow represents that all 100 taskettes match exactly their respective targets, thus earning a fuzzy-scale matching-ship of 1.0 for both type-I and Type-II. This would correspond to the information of the target being inforcepted without any loss, or what is involved is a distortion free inforception. Distortion free transmission is characterized by a PSF of Dirac delta function of an amplitude of 1 at the origin, or equivalently a flat MTF of an amplitude of 1, as a function of the corresponding frequency of the information, as is shown in (B). The dashed arrow represents that all 100 taskettes have the same exact degrees of a partial match to earn a fuzzy-scale matching-ship of <1.0 but >0.5 in both type-I and type-II.

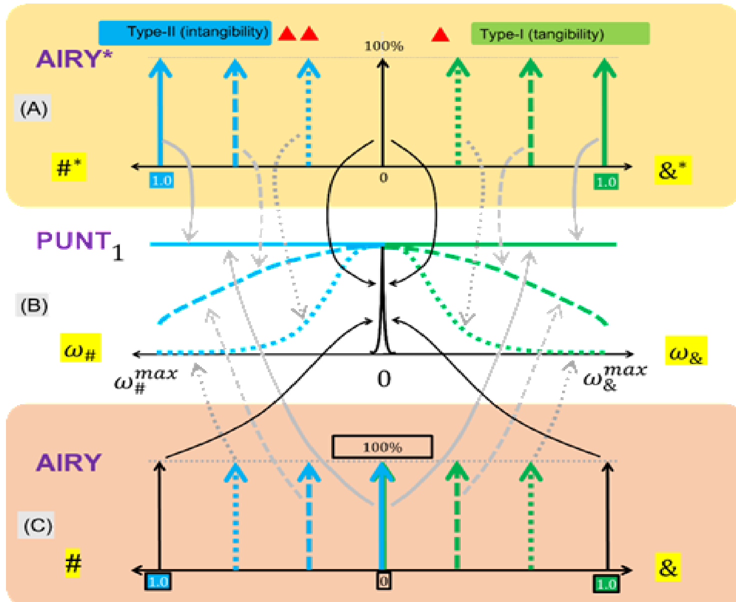

Figure A2. (A) Missing-centric grading of two types of matching between a taskette and its target. The thick solid arrow represents that all 100 taskettes are an exact match to their respective targets, earning a fuzzy-scale matching-ship of 1.0 for both type-I and Type-II. The dashed arrow represents that all 100 tasketts have the same exact degrees of partial-match to earn a fuzzy-scale matching-ship of <1.0 in both type-I and type-II. The dashed arrow represents that all 100 tasketts have the same exact degrees of partial-miss to earn a fuzzy-scale matching-ship of <0.5 in both type-I and type-II. The solid black arrow at the origin represents that all the 100 tasketts contain 0% of the information of their respective targets, earning a fuzzy-scale matching-ship of 0 in both type-I and type-II. (B) is the Fourier transform of the functions of (C). (C) are the counter-function of (A) formed by subtracting the membership from 1.

This would correspond to the information of the target being inforcepted with loss. Lossy inforception must have the MTF attenuated compared to the distortion-free case, and for generality, it is reasonable to assume that the finer details are more easily lost than the global information, and that would grossly correspond to low-pass filtering. The dashed arrow represents that all 100 taskettes have the same exact degrees of partial-miss to earn a fuzzy-scale matching-ship of <0.5 in both type-I and type-II. This would correspond to the information of the target being inforcepted with more loss than the partial-match case. This more lossy inforception must have the MTF attenuated even more compared to the distortion-free case, and that would grossly correspond to a low-pass filtering with the passing band even narrower than the partial-match case. The solid black arrow at the origin represents that all the 100 taskettes contain 0% of the information of their respective targets, earning a fuzzy-scale matching-ship of 0 in both type-I and type-II. This would correspond to the information of the target being completely blocked, or what is involved is a full-spectrum complete-rejection inforception. A full-spectrum complete-rejection inforception may be represented by a ZERO MTF, however, if one considers that the MTF corresponding to this case must be the limiting case of the MTF by evolving the matching condition from the exact match, partial-match, and partial-miss, down to complete miss, the MTF as the limiting case shall be a Dirac delta like function at the origin of the frequency. And the MTF of (B) can be made by Fourier transform of the functions of (C) with respect to the index of the matching scale. What would result from such Fourier-transform are the counter-function of (A) formed by subtracting the membership from 1, or the complement membership of it, which may be termed the conjugate or pseudo membership. (A) can be viewed as that the two types of grading are distributed laterally with respect to a middle line that corresponds to 0% matching or complete missing. (A) is thus called a ***missing-centric profile*** because the center axis represents complete-missing. Comparatively, (C) can also be viewed as that the two types of grading are distributed laterally with respect to a middle-line corresponding to 100% matching. (C) is then called a ***matching-centric profile*** because the center axis represents exact matching.

We will then be interested in the conditions of not all taskettes receiving an identical grade, as illustrated in **Fi. A3**. Like that in Fig. A2(A), the thick green solid arrow in Fig. A3(A) represents that 100% of all 100 taskettes match exactly their respective targets in Type-I only, earning a fuzzy-scale type-I matching-ship of 1.0. This would correspond to the type-I information of the target being inforcepted without any loss, or what is involved is a distortion free inforception of type-I information. This distortion free inforception is characterized by a PSF of

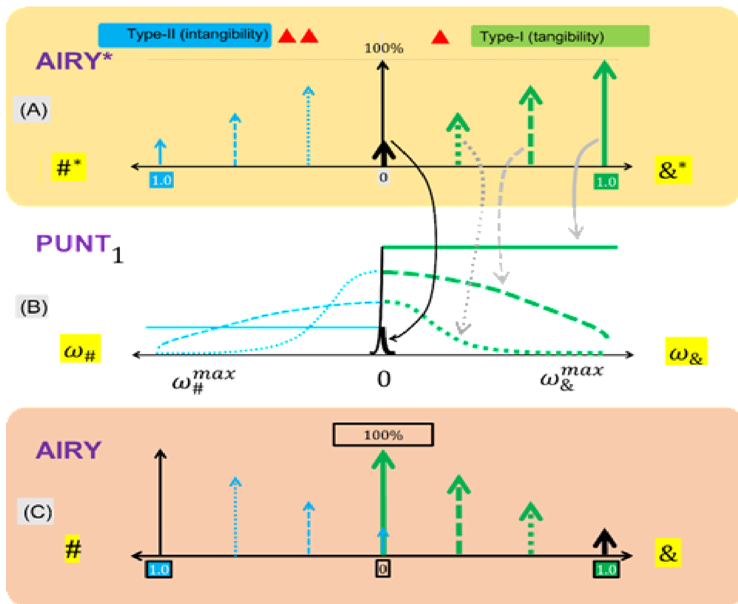

Figure A3. (A) The thick green solid arrow represents that 100% of all 100 tasketts are an exact match to their respective targets in Type-I only, earning a fuzzy-scale type-I matching-ship of 1.0. The thick dashed green arrow represents that 67% of the 100 tasketts have the same exact degrees of type-I partial-match to earn a fuzzy-scale matching-ship of <1.0 in type-I. The thick dotted green arrow represents that 33% of the 100 tasketts have the same exact degrees of partial-miss of type-I to earn a fuzzy-scale matching-ship of <0.5 in type-I. The thick solid black arrow at the origin represents that all 25% of the 100 tasketts contain 0% of the information of their respective targets, earning a fuzzy-scale matching-ship of 0. (B) is Fourier transform of the functions of (C). (C) is the counter-function of (A) formed by subtracting the membership from 1. The thin blue solid arrow represents that 25% of the 100 tasketts have the same exact degrees of type-II partial-match to earn a fuzzy-scale matching-ship of 1.0 in type-II. The thin blue dashed arrow represents that 33% of the 100 tasketts have the same exact degrees of partial-miss to earn a fuzzy-scale matching-ship of <0.5. The thin blue dotted arrow represents that 66% of the 100 tasketts have the same exact degrees of partial-miss to earn a fuzzy-scale matching-ship of <1.0. The thin black arrow at the origin represents that 100% of the 100 tasketts contain 0% of the information of their respective targets, earning a fuzzy-scale matching-ship of 0. (B) is Fourier transform of the functions of (C). (C) is the counter-function of (A) formed by subtracting the membership from 1.

Dirac delta function of an amplitude of 1 at the origin, or equivalently, a flat MTF of an amplitude of 1, as a function of the corresponding frequency of the information, as shown in (B). Unlike that of Fig. A2(A), however, the thick dashed green arrow in Fig. A3(A) represents that 67% of the 100 taskettes have the same exact degrees of type-I partial-match to earn a fuzzy-scale type-I matching-ship of <1.0. This would correspond to a lossy MTF like the one in Fig. A2, denoted by the same line pattern but with the peak amplitude of it reduced to 67%. And the thick dotted green arrow of Fig. A3(A) represents that 33% of the 100 taskettes have the same exact degrees of partial-miss of type-I to earn a fuzzy-scale type-I matching-ship of <0.5. This would correspond to a lossy MTF like the one in Fig. A2, denoted by the same line pattern but with the peak amplitude reduced to 33%. This more lossy inforception has the MTF corresponding to a low pass filtering with the passing band as narrow as that one of Fig. A2 but smaller in amplitude. The thick solid black arrow at the origin represents that all 25% of the 100 taskettes contain 0% of the information of their respective targets, earning a fuzzy-scale matching-ship of 0. This would correspond to the MTF of an impulse at the origin with an amplitude of 0.25. The MTF of (B) can be made by Fourier transform of the functions of (C), which are the counter-function of (A) formed by subtracting the membership from 1, or the complement membership of it as the conjugate or pseudo membership. The right lateral sides of (A) and (C) are the more realistic profiles of the missing-centric and matching centric distributions of the type-I membership when comparing a taskette to a target.

The amplitude distribution of the type-II membership shown at the left lateral side of the middle line in Fig. A3 is complementary to the amplitude distribution of the type-I membership at the right lateral side of the middle line. The thin blue solid arrow represents that 25% of the 100 taskettes have the same exact degrees of type-II partial-match to earn a fuzzy-scale type-II matching-ship of 1.0. This would correspond to a loss-less flat MTF but with the peak amplitude of it reduced to 25%. The thin blue dashed arrow represents that 33% of the 100 taskettes have the same exact degrees of partial-miss to earn a fuzzy-scale matching-ship of <0.5. This would correspond to a lossy MTF like the one in Fig. A2, denoted by the same line pattern but with the peak amplitude of it reduced to 33%. This more lossy inforception has the MTF corresponding to a low pass filtering with the passing band as narrow as that one of Fig. A2 but smaller in amplitude. The thin blue dotted arrow represents that 67% of the 100 taskettes have the same exact degrees of partial-miss to earn a fuzzy-scale matching-ship of <1.0 but >0.5. This would correspond to a lossy MTF like the one in Fig. A2, denoted by the same line pattern but with the peak amplitude of it reduced to 67%. This more lossy inforception has the MTF corresponding to a low pass filtering with the passing band as narrow as that one of Fig. A2 but greater in amplitude. The thin blue dashed solid black arrow at the origin represents that 100% of the 100 taskettes contain 0% of the information of their respective targets, earning a fuzzy-scale matching-ship of 0. This would correspond to the MTF of an impulse (Dirac delta function) at the origin with an amplitude of 1.0. The MTF of (B) can be made by the Fourier transform of the functions of (C), which are the counter-function of (A) formed by subtracting the membership from 1, or the complement membership as is termed the conjugate or pseudo membership. The left-lateral sides of (A) and (C) may be the more realistic profiles of the missing-centric and matching centric distribution of the type-II membership when comparing a taskette to a task.

Appendix 3: The Chronicle of the Tasking of 100 Trials

The time was registered according to the central time zone: (1) Target #0001 was set on Jan. 30, 2022. Taskette #0001 was available the same day. The feedback rendered the target to be a digital photograph taken by the tasker from the screen display of his computer monitor. (2) Target #0002 was set on Jan. 31, 2022. Taskette #0002 was available the same day. The feedback revealed that the target was a digital photograph taken by the tasker of a personal object of his. (3) Target #0003 was set on Jan. 31, 2022, after the completion of trail #0002. Taskette #0003 was available the same day. The feedback identified the target as being a digital photograph taken by the tasker of a decorative object of his home. (4) Target #0010 was set on Feb. 08, 2022. Taskette #0010 was available the same day. (5) Target #0050 was set on Sep. 09, 2022. Taskette #0050 was available on Sep. 16. 2022. (6) Target #0052 was set on Oct. 06, 2022. Taskette #0052 was available the next day. (7) The preliminary results of the 52 trials were presented in a virtual full-member workshop of the Society for Scientific Exploration (SSE) on Oct. 14, 2022. (8) Target #0090 was set on Dec. 08, 2022. Taskette #0090 was available the same day. (9) Target #0100 was set on Dec. 14, 2022. Taskette #0100 was available the same day.

Trials that did not abide strictly to the protocol to have likely caused target interference were recorded as the following. (1) Target #0011 was set on Feb. 10, 2022. Taskette #0011 was available on Feb. 13, 2022. However, after informing the perceiver of the setting of the target #0011 and before informed by the perceiver of the availability of taskette #0011, the tasker changed target #0011. The perceiver was unaware of the change of target #0011 at the time of tasking #0011. Taskette #0011 thus has two targets to compare against, and the set of lower grades between matching against the two targets was counted toward the main body of the analysis. (2). Target #0079 was set on Nov. 24, 2022. Taskette #0079 was available on Nov. 26, 2022. However, after informing the perceiver of the setting of target #0079 and before informed by the perceiver of the availability of taskette #79, the tasker made a selection of target #0080. The perceiver was unaware of the target #0080 having been selected at the time of tasking #0079. Taskette #0079 thus has two targets, #0079 and #0080, to compare against. The two sets of grades by comparing the same taskette #0079 to the two targets were counted toward the main body of the analysis. Taskette #80 was, therefore, unavailable, and the next trial started with the selection of target #81.

Additionally, the following trials registered two taskettes resulting from two attempts that were put into the record. (1) Target #0030 was set on March 23, 2022. Two taskettes of the same identifier, #0030, were registered on Apr. 6, 2022. (2) Target #0087 was set on Dec. 5, 2022. Two taskettes of the same identifier, #0087, were registered by the next day. (3) Target #0092 was set on Dec. 9, 2022. Two taskettes of the same identifier, #0092, were registered on the same day. (4) Target #0094 was set on Dec. 11, 2022. Two taskettes of the same identifier, #0094, were registered on the same day. For these cases of two taskettes being available for one target, the lower matching grade received between the two taskettes were counted toward the main body of analysis. Other notable information regarding the targets may include the following: (1) Target 4, like the first three targets, was a photograph of the personal items of the tasker; (2) None of the targets selected after the first 4 were the photograph taken by the tasker; (3) Targets 11, 22, 25, 26, 27, 37, 41, 45, 49, 72, and 100 were artistical or computer-generated graphics, making them non-real objects that are discordant with the protocol requiring real physical objects portrayed in the photograph.

Appendix 4: The Instructions and Consent That the Judges Received for Grading

Check-box Row 1:
Shape/structural degree of matching, 0%---100%, at an increment of 10%

To what extent does the information in the sketch resemble the shape/structure of the target?

Check-box row 2:
Feature/functional degree of matching, 0%—100%, at an increment of 10%

To what extent does the information in the script describe the feature/function of the target?

Targets 30, 87, 92, 94: Of these targets, there are two perception results to check:
*: First trial
**: Second or alternative trial

Targets 79 & 80: These two targets were mixed up, and there is only one perception result (PK0079) available to check.

Volunteering to score the degrees of matching is greatly appreciated.

The volunteer agrees that his/her name's initials can be acknowledged in any public presentation/publication. The volunteer agrees to have no disclosure of any target or precepted results of this experiment until a public presentation or publication is made.

Appendix 5: A Protocol to Introduce Additional Control to Target Selection or Interference

A key to additional control is the inclusion of a third individual to act as a moderator (denoted as C) who determines the target that can be concealed to the tasker in addition to the perceiver. With the addition of a moderator, the protocol of spatially non-local perception could take the following steps. (1) The moderator chooses a photograph of a primary physical object from any sources

No.		0%		10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
1	Shape/structure	☐		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	Feature/function	☐		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

No.		0%		10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
2	Shape/structure	☐		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
(K's)	Feature/function	☐		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

No.			0%		10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
11a		Shape/structure	☐		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
		Feature/function	☐		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
11b		Shape/structure	☐		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
		Feature/function	☐		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

No.		0%		10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
30 *	Shape/structure	☐		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	Feature/function	☐		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
**	Shape/structure	☐		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	Feature/function	☐		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

No.		0%		10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
79 *	Shape/structure	☐		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	Feature/function	☐		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

No.		0%		10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
80 *	Shape/structure	☐		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	Feature/function	☐		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Figure A4. Judges response checklist. First two rwo groups equals Targets: 1---10 (target 2 has an additional photograph after the feedback). Remaining row groups equals Targets: 11---20 (target 11 was switched).

he/she deemed appropriate. (2) The moderator transfers the printed photograph to a local physical box that belongs to the moderator only and is inaccessible to both the tasker and the perceiver. (3) The moderator notifies the tasker via email that a target has been chosen. (4) The tasker notifies the perceiver via email that a target has been set by the moderator. (5) The perceiver attempts to acquire information of the target said to have been chosen. (6) Immediately after a conclusive attempt, the perceiver hand-draws a simple illustrating sketch and hand-writes short descriptive scripts on a single side of an A4-size paper. The drawing is to take roughly the upper half section of the paper, and the script is to occupy roughly the lower half section of the paper. The paper is to be headlined (handwritten) with the number of the trial in the form of "PKC #0XXX", where the XXX ranges from 001 to 400 for a total of 400 targets (roughly 100 targets per group for a total of 4 groups), and the date of the completion of the taskette. (7) The perceiver scans the sheet of taskette to a pdf file identified with the name of PKC_0XXX_20YY_MMDD (YY for the year, MM for the month, and DD for the day) and then upload that pdf file to a cloud-storage shared among the moderator, tasker, and perceiver. (8) Immediately after the previous procedure, the perceiver notifies the tasker via email of the availability of a taskette in the shard folder for inspection. (9) The tasker notifies the moderator via email of the availability of a taskette in the shard folder for inspection. (10) The moderator examines that the taskette in the shared cloud-storage has the same identifier "PKC0XXX" as the target stored in the local storage of the moderator. (11) The moderator uploads the target (electronic file or the scanned file of the physical print) with the identifier "PKC0XXX" to the shared cloud-storage. (12) The moderator notifies the tasker and perceiver via email that the target of the identifier "PKC0XXX' is available in the shared cloud-storage. (13) The perceiver accesses the target of the identifier of "PKC0XXX' now available in the shared cloud-storage to receive feedback. This constitutes a trial. (14) Only after a trial is registered as being complete by the presence of both the target and the taskette of the same identifier "PKC0XXX" in the shared cloud-storage, can the next trial begin with the selection of the target by the moderator as is defined by the procedure specified heretofore.

The following methods may be chosen randomly by the moderator to introduce target interference of four difference levels to uncomplicate the causal complexities concerning the factors that can be controlled and the outcomes that can be assessed in spatially non-local perception. (1) Target interference level 1 (~100 trails): The moderator picks one target only, and the tasker is blind to the condition that only one target is chosen. This makes the trails double-blind in the absence of target interference. (2) Target interference level 2 (~100 trials): The moderator picks two targets, and the tasker is blind to the condition that two targets are chosen. This makes the trails double-blind in the presence of target interference by the moderator. (3) Target interference level 3 (~100 trials): The moderator picks two targets, and the tasker knows that two targets are available. This makes the trails one-and-a-half blind, with the true source of target interference being the moderator. (4) Target interference level 4 (~100 trials): The moderator picks two targets which are shown to the tasker. This makes the trails single-blind, with the true source of target interference being the moderator and tasker combined.