# TRANSITIONS-*FELT*:
# WILLIAM JAMES, LOCATIVE NARRATIVE AND THE
# MULTI-STABLE FIELD OF EXPANDED NARRATIVE

by

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## Publications

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# Abstract

**Emma Louise Whittaker**

**Transitions-*felt*: William James, locative narrative and the multi-stable field of expanded narrative**

This thesis is about expanded narrative, a new field of experimental narrative practices that are not represented by single subjects or by categories such as 'interactive'. It is defined by works that present a challenge to the form, fiction or nonfiction, in terms of the content, structure, style of writing or audience engagement. Extending the cognitive term 'perceptual multistability', that refers to switching between interpretations experienced when we look at an ambiguous figures, such as the Necker cube, this thesis develops the position that expanded narrative practices and specifically locative narrative, a genera of expanded narrative, hold the potential to prompt the experiential effects of multi-stability. The metaphor of multi-stability, introduced here, stands in for three aspects of experience: language, perception and belief. While ambiguity and misperceptions have been recognised in the literature of experiential narrative practices, further exposition is required. The thesis asks what are the conditions in which the qualities of the metaphor of multi-stability may be prompted and what framework usefully articulates the parameters of experience? Drawing upon the writings of the philosopher William James, subsequent pragmatists, cognitive neuroscience and narratology, it explores how a radical empiricist perspective can inform a non-foundational experiential framework that questions the status of knowledge and the problems of translation between experience and narrative interpretation. It suggests that the subjective classification of imagined and perceptual objects can be affected by the relations between the narrative form, the environment and the participant's beliefs. The major contributions of the thesis are: (1) the development of the Jamesian experiential framework that sets up cross-disciplinary parameters for the thematics of experience to engage with the ontological and epistemological challenges of evaluating and designing for multistability; (2) a relational approach to the interpretation and coding of participants' feedback of locative narratives; (3) that is employed in the development of a collection of speculative strategies for evoking the effects of multi-stability, based on the development of four published locative narrative apps and ten prototypes. While highly contingent, participant introspective accounts of experience are central to the methodology here: the process of serial hypothesis forming and the iterative development of prototypes and locative narrative case studies. This research does not attempt to draw causal connections from science to that of narrative experience or vice versa. The thesis first considers the field of expanded narrative and the semantic and pragmatic framings of the term narrative and narratological framings of language as multi-stable. It goes on to examine the antecedent and coexistent practices of locative narrative. The epistemological implications for misperception, the function of representation and intentionality in perception are examined in relation to the environmentally situated perceptual, interpretative, aesthetic and emotional dimensions of experience. This research contributes to research in narrative and creative practices. It extends the form of locative narrative with the concept of multi-stability that has a wider application with the field of expanded narrative, creative practice and narratology.

# List of Contents

**Papers** 372

**List of illustrations**

## List of diagrams

## List of tables (main text)

## List of tables (Appendices)

## Abbreviations of books by William James

PP     *The Principles of Psychology* Volume 1 (1890a)
PP     *The Principles of Psychology* Volume 2 (1890b)
PBC   *Psychology, the Briefer Course* (1892)
WB    *Will to Believe* (1897)
VRE   *The Varieties of Religious Experience, A Study in Human Nature* (1902)
P      *Pragmatism* (1907)
PU    *A Pluralistic Universe* (1909)
MT    *The Meaning of Truth* (1909)
SPP   *Some Problems of Philosophy* (1911)
ERE   *Essays in Radical Empiricism* (1912)
CER   *Collected Essays and Reviews* (1920)

Other publications by Williams are referred to within this text by their full title.

# Introduction

The common classifications of narrative *as* digital, paperback, literary, mass market, fiction, nonfiction, etc., offer a generally shared short hand, despite the contentiousness of their meanings when the surface is scratched. However, there is no general meaning of 'interactive narrative' and little consensus either from users of the terms interactive storytelling, interactive fiction or other variants! The binary opposition implied by the term interactive narrative immediately runs into difficulties, what is non-interactive narrative? Where is the 'interactivity' located? With the text? The reader? The platform? The context? What are the relationships between how the participant feels and thinks, what they do 'with the text', and the type of affects that result? What makes the structure, content or presentation of a story 'interactive'? Does the form of the narrative have to change during 'use' for it to be considered interactive? Definitions and disputes abound that underplay or privilege various features of narrative.

*….low-fi works distributed on digital platforms, locative narratives, on-line community novels, pervasive games with live and online participants, twitter fiction, VR journalism, transmedia productions, literary podcasts, "puzzle novellas"*[1]*, role-playing via mobile phones, algorithmically generated dialogue…*In a world filled with experimental narrative practices, the term 'interactive' often does not quite capture the form, modes or engagement or subjective experience of this diversity. Expanded narrative is the name I give to a new field of narrative

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[1] Simogo (2016 ) *Device 6* v.1.2 [iOS & Android Application] Retrieved from: https://itunes.apple.com/gb/app/device-6/id680366065?mt=8

and practices that present a *challenge to a particular form of storytelling, fiction or nonfiction*, in terms of the content, structure, style of writing or the ways in which the audience engages. 'Interactivity' is just one possible *challenge to the form* that an individual work may present.

This thesis is concerned with the field of expanded narrative and one of its forms, 'locative narrative'. It is perhaps around 2000, with the removal of the GPS signal denegation approved by the US government (U.S. Air Force 2013), together with techniques such as Wi-Fi triangulation and proximity to sensors, that the use of positioning technologies in the arts is referred to as practice in its own right, while at least since the 20th century, mapping and navigation has been a part of the artist's tool kit. Ben Russell's *Headmap Manifesto* (1999: 17, 28) foretold the possibilities for "location aware devices" to create dynamic networks that could connect object and place. He suggested strategies such as attaching histories to places and animating objects with sound, games and narrative, leaving notes "without a visible sign", binding visual, textual and oral information to places that can be found by others, "supplementing" signs, clothes and advertising and tracking people, animals and things. Tactics, that he suggested, would change relations between physical, digital and "augmented space", affecting perception and behaviour.

A range of hard and software capabilities, including positioning techniques and programmatic triggering of media files and sound playback, together with low-tech props and tools, have been utilized in diverse forms of location-based play, theatrical and storytelling experiences. City streets, remote landscapes and public buildings have been co-opted and transformed by locative practices.

The relatively recent history of 'locative arts' is reflected by the coining of the term 'locative media' attributed to Karlis Kalnins at The Locative Media Workshop, Karosta, Latvia in 2003, hosted by arts collective 'RIXC' (Hemment 2006: 354), (Raley 2010: 300). Subsequently, practitioners and theorists have investigated the personal and subjective experience and also the socio-political and cultural relations between mapping, the movement of data, people, things (Russell 1999: 10, 27), (Hemment 2006). Rita Raley (2008: 127) characterises these poles as "human and posthuman". Jen Southern's (2016) critical mobilities perspective expands the scope to include,

> "...situated and embodied, mobile, relational, networked, experimental and multiple practices..." (2016: 179)

A range of terminology have been used to describe situated storytelling. Jeremy Hight (2006, 2) claims 'locative narrative' as his own, with reference to his project with Jeff Knowlton and Naomi Spellman, *34 North 118 West* (2002), an early example of the use of GPS to trigger historically inspired audio narratives on portable computers. *Hopstory* (2002), a collaborative project in which 'bluetooth buttons', launched audio and video character vignettes on personal devices inside a Dublin hop store, in a 'day in the life' narrative, described by Doyle, Davenport and Mahony (2002: 348) as a "mobile context aware-narrative" and as, "...a story that responds to the physical and social context of a mobile user". Martin Rieser (2005: 8, 11) describes "spatial narratives" and "locative media narratives" as storytelling in which "diegetic space" is "mapped" onto geographic locations. And in Jason Farman's (2014: 4) survey of the field, he chooses "mobile media storytelling" to capture a variety of practices where locative media connects story to place and space.

Rita Raley's vocabulary distinguishes an emphasis between story content and literature. For Raley, "locative narrative" (2008: 126) signifies the annotating of place by virtual or augmented visual displays, such as games or tour guides that include 'story content', whereas "mobile narratives" (2010: 302) specifically concern the creation of literary experiences. However, for Brian Greenspan (2011: 5) 'locative narrative' is distinguished from other mobile media projects precisely because of its literary dimension. Jon Dovey (2016: 141), Tom Abba (2016) and Kate Pullinger (2016) use the term "ambient literature" to denote a *genre of writing.* Ambient literature is oriented towards the text*,* histories of the book, the authorial intention to create situated literary experiences, with an emphasis upon interpretation and meaning, rather than configurations of media content and navigation tech. Nomenclature's exquisite corpse presents varying emphases on place, technology, politics, aesthetics and literariness, I collect them here under the genera of locative narrative and part of the family of expanded narrative.

Narrative that is intentionally situated in the reader's location does not have the same signification as eReaders or podcasts *that happen* to be read or heard in the park or on the bus. While there is variance in name and descriptors, I argue that locative narratives at least share three common elements, emphases upon: the place of reading/listening/watching; the mode of interaction or participation; and movement and navigation. The medium of locative narrative therefore involves some or all of these elements:

- Narrative that is site-specific (not a bespoke space, virtual or physical)
- Narrative delivered via some form of media representation, such as, text, images, video or sound;

- A participation mechanism that is linked to the structure of the narrative;

- Spatially distributed narrative using some form of navigation (maps to GPS).

Jason Farman's (2014: 6) framing of locative narrative situates "mobile media storytelling" in the deeper histories of site-specific storytelling. Steve Benford and Gabriella Giannachi (2011) choose the lens of performance and 'virtual', 'mixed reality' and 'hybrid' spaces. It is in the context of screen-based media that Martin Rieser (2011: 3) positions narrative practices that engage "ubiquitous interaction technologies", extending theories of reception and participation.

A phenomenon, often-reported by participants of expanded and locative narratives, is perceptual-interpretative ambiguity, between what is regarded *as* 'the real', 'the represented' and 'the imagined'. Prior to engaging in this research I was conducting questionnaires with participants of a murder mystery locative narrative, *Cold Case 1866* (2010), that I had collaboratively developed. In addition to reporting upon the functionality of the application, participants frequently mentioned experiences they found surprising or unexpected, such as believing the plunge and splash of oars was emanating from rowing boats on the river, rather than the being part of the audio track, mistaking recorded footsteps for an existent person, turning around to find no one there and talking about characters *as* 'actual' suspects. These types of 'unexpected' occurrences can be described as categorical confusion between what is *taken as* existent or 'imagined' objects, or in some cases, as cross-modal illusions[2] and

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[2] Cross-modal illusions refer to cases where interpretation of stimuli is affected by another sensory modality, where misperception may be reported.

misperceptions. Participants often reported that these types of experiential strangeness were what they enjoyed the most, found engaging at the time and were most memorable.

Ambiguity, or categorical confusion, can result when the borders between what's inside and outside a narrative are not adequately delineated in our experience. This effect, manifesting in a variety of contexts, has been highlighted in what I refer to as 'blurred theories'. Marcus Montola et al. (2009: xxi) describe pervasive game worlds that "blur boundaries", extending Katie Salen and Eric Zimmerman's (2004: 94) notion of the 'magic circle', a metaphor for the frames that games create, after Johan Huizinga's (1955 [1938]) cultural analysis of play. Jon Dovey and Constance Fleuriot (2011: 99) describe "convergences" between media and the environment that can lead to "magic moments" and "synthetic confusion" in locative arts. Drawing upon Gregory Bateson (1972) and Erving Goffman (1974), Steve Benford et al. (2006: 435) describe "blurring the frame", that occurs between 'fictional' and 'real' worlds in hybrid performances.

**Research rationale**

These 'blurred theories' analyse categorical adherence/ambiguity in terms of the norms of social interaction or as an anomalous affect attributed to the particular cultural practices of play and performance. I argue that these phenomena are conceptually and experientially complex and further examination and explication is required. In this thesis I argue that there is theoretical and practical application within the field of expanded narrative, and particularly for the practice of locative narrative, for a definition of these phenomena that considers not just their affects, but also a framing of experience in terms of the perceptual, interpretative, aesthetic and emotional processes that operate beneath and within our awareness.

The *metaphor of multi-stability* stands for three inter-related aspects experience:

- Perception as multi-stable (above and below conscious awareness)

- Language as multi-stable

- Beliefs about what is real or true as multi-stable; resting on a feeling of rationality

*To talk of the quality of multi-stability is to describe a value in experience ascribed to an object, to talk of the affect of multi-stability is to describe a value in experience ascribed to the experiencing subject.*

**This thesis addresses the following questions:**

1) What framework of experience usefully sets the parameters for articulating the *metaphor of multi-stability*?

2) How can the affect of the *metaphor of multi-stability* be created in locative narratives?

3) How can the affect of *metaphor of multi-stability* be measured and interpreted?

The systematic examination of the experience of perceptual illusions, under laboratory conditions, is well documented in the work of the German scientists Gustav Fechner (1860), Hermann van Helmholtz (1925[1867]) and Wilhelm Wundt (1863), in the evolving field of psychophysics in 1860's and 70's[3]. While, of course, the examination of sensory illusions reaches back at least to Aristotle (350 B.C.E. bk3.p1). What became clear quite quickly, was

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[3] Fechner, G. (1860) *Elemente der Psychophysik*, developed Weber-Fechner Law, an idea first put forward by E. H. Weber in 1846. It states the "relations between intensities of stimulus and intensities of sensation, and promised to qualify psychology (as "psychophysics") for membership in the select circle of the quantitative and experimental sciences." (Perry 1935b: 3-4) William James examines a variety of Helmholtz's conclusions in *Principles of Psychology,* for example, on hearing (1890b: 170) and Wundt's methodology (1890a: 431).

that the form of locative narrative with its variety of elements, (narrative, recorded voice, sound, location, participant interactions, wayfinding and mobile device), would not lend itself to positivist empirical measurement of the affect of *the metaphor multi-stability* under controlled conditions. While layers of complexity could be removed, what would be measured would cease to be the same form.[4] The reported experiences and the interpretation of locative narrative is interesting precisely because of the *relations between* the different elements and the philosophical conundrums that it invites participants to grapple with, 'How can we know what is existent if our perception can be faulty?' 'How do we differentiate between fact and fiction?' 'To what extent can our beliefs be verified by our experience?'

In the field of locative arts, a range of methods have been evolved to develop and evaluate projects. These fall into two broad categories that I refer to as 'artist experimental' and 'HCI led', a third category combines elements of both these approaches. Artist experimental approaches advocate that individual artists or teams use an iterative cycle of development. Broadly informed by ethnographic methods, observation, conversations, and in some cases questionnaires, are employed with small groups of testers. Reflection upon responses feed into on-going development of the project (Dovey, Fleuriot and Lingington 2012) (Kabisch 2010). 'HCI lead' approaches in the locative arts tend to aim for the production of verifiable empirical results. Structured data collection and the correlation of information gathered using different methods from movement patterns to structured interviews, observation and ethnographic methods. Sample sizes tend to be larger successive groups (Lindt et al. 2006) or large scale field trials, with a 100 or more users (Reid et al 2010). The aim of this approach is

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[4] William Gaver (1993: 285) offers an algorithmic approach to measuring the perception of sounds in naturalistic settings.

to produce results that can be generalised to other research and demonstrating that the goals of the project have been met, such as Reid et al's (2010: 54) "emergence driven methodology". HCI's 'research in the wild' is an ethnographic approach to developing prototypes and observing users' interactions in their own situation (Rogers 2011). Benford and Giannachi (2011:11) and Benford et al (2013) "research in the wild methodology" combines artist experimental and HCI approaches, in projects that are artist-led and developed and evaluated with HCI researchers. Finished performance works are evaluated with a combination of ethnographic and qualitative research methods, from which synthesising concepts and theories are extrapolated, feeding into future projects that are led by artists.

Questions can be given to locative narrative participants that may yield binary responses, *taken as* objective data, 'Does pressing '$x$' button cause '$y$', to happen in '$z$' circumstances?' Other questions are *taken as* subjective, resulting in qualitative responses, 'Is the game objective achievable?' or even, 'What was your experience of navigation like?' Qualitative data may require that there is a statistically or practically 'sufficient'[5] number of responses which are coded and analysed in relation to types and average responses, e.g. '70% of respondents found the game ending satisfying'. The framework of analysis may have been symbiotically evolved in a reciprocal cycle of iterative testing, however it is yet another vocabulary from which 'results', even if nuanced and interesting, are a 'description' in an act of further translation. Analytical philosophers, such as the linguistic pragmatist Huw Price (2011: 15) question the possibility of making 'truth claims' using a semantic vocabulary, or that we can claim that there are significant word-world relations; and Robert Brandom (2011: 9-12)

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[5] Grounded and qualitative research methodologies advocate that responses should be gathered until 'saturation' is reached –until no further different 'types' of responses are recorded.

rejects that cognitive "practical abilities" (such as skills and "know-how") can be causally explained in terms of discursive language, that is representational, rule-based and normative. Problems of translation between different vocabularies, are not easily overcome, even perhaps with a triangulation of ethnographic methods (Reid et al 2005b) (Benford & Giannachi 2011: 10).

On the other hand, not engaging in a qualitative testing process with 'non-static' objects, those in which the 'users' do something or have some direct contact, is a risky strategy as the developers' viewpoints and experience is unlikely to 'correspond' exactly with the range of users' experiences, resulting in objects deemed to be faulty or unsatisfactory by some. A *belief* that there is correspondence between the content of experience and reports of experience (word-world relation[6]), between different users' reports of experience, between reports of experiences and their translation into 'results', opens up many epistemological questions (that also have resonance with discussions on narrative and fiction, discussed in chapter 5).

The development of locative narratives comes up against the problems of 'establishing' a basic range of technological functionality and usability necessary to satisfy the condition that 'most' participants can operate the application, 'to some extent', and how to investigate, measure and interpret participants' reports of phenomenal experience. Closed questions, such as 'Did you find the objects?' can give one level of 'data'. Open questions such as 'What was your experience of looking for the objects like?' can yield, detailed or vague, repetitious or surprising alternative viewpoints. This information is highly variable and contingent on a

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[6] Huw Price's take on the relation is discussed further in chapter 4. Hilary Putnam's take on the relation is discussed further in chapter 5.

multitude of environmental, social and personal factors. Reports of one person's experience one day is often different the next.

While the grounds for asserting verified empirical knowledge are open to discussion, in a local and limited sense, there seems to be a practical benefit in beta testing. However, I argue, it is the framing of experience that is important here, not just in articulating the concept of *multi-stability,* but also for its measurement and interpretation. In this thesis I put forward an experiential framework that engages with the ontological and epistemological challenges of *multi-stability,* that is based upon, and offers a new reading of the writings of the late 19th century and early 20th century psychologist, philosopher and educator, William James.[7]

Since the publication of his first articles in the 1860's, William James has continued to engage thinkers[8] on topics from perception to epistemology and ontology. James was interested in casual explanations of experience; and the neurophysiological and the psychological methods employed for investigating phenomena are a main focus of his *Principles of Psychology* (1890). However, he is critical of empiricism for "leaving out" an account of the subjective relations to 'facts', expressed by language and logic, arguing that language itself is a particular construing of knowledge. His philosophy of radical empiricism calls for an account of the "conjunctive" as well as the "disjunctive" *relations* between things.

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[7] Initially I read the psychology of William James in order to develop an historical framing of cognitive psychology but found in his pragmatist and radical empiricist approach to psychology and philosophy many relevant tools for approaching questions of experience that sought to give a naturalistic account of the philosophical questions raised. Considering James' philosophy in the context of pragmatism and subsequent interpretations and responses lead to intersections between philosophy of mind and narratology and the relations between that which is taken as the real, imagined, truth and fiction.

[8] James' influence is outlined in chapter two.

> "The statement of fact is that the relations between things, conjunctive as well as disjunctive, are just as much matters of direct particular experience, neither more so nor less so, than the things themselves."
> (MT 1909: xii)

Truth claims for James are contingent on the *particular* context of use. We can ask Jamesian, classical pragmatist questions, 'What are the practical consequences for me to take this judgement *as* true?' 'What is its "cash-value"?' 'To what extent does this view *fit satisfactorily* with my existing ideas, whereby it does not break with my understanding of how the world works, but extends it in an acceptable way?' A critic's analysis of a film may be statistically supported by the opinion of other critics, but we do not necessary need to give this type of knowledge, these *beliefs*, the status of being *fundamentally,* or*, unequivocally true*. Without reducing empirical data to subjective opinion, we can apply James' classical pragmatist analysis in both cases. Analytical philosopher, Bertrand Russell (1910: 101-102, 132) and a linguistic pragmatist Robert Brandom (2011:16), have criticised James for confusing the concept of truth with the concept of meaning, but arguably that was James' point; his concept of truth does not make a logical identity claim, instead he makes the meaning of truth a value that is contingent on the particular instance of use; the term 'truth', for James, implies the critique of its meaning as a static value.

It is the value of belief, I argue here, after James, that brings together rational argument with feeling, emotion and sentiment. Taking a logical analysis or rational explanation to its limits, says James, reveals that the belief that one equivalently satisfactory explanation is better than another, rests upon feelings, characterised by an "active impulse" or "aesthetic demands" (James WB 1897: 75-76); because there is no foundational knowledge, only multiple points of view. This is James' insight. Aesthetic value and sentiment play a role in what we perceive, it

fits with our expectations; it *feels* right. That which is taken as true is a value ascribed in experience.

For James, epistemological, metaphysical, physiological and psychological questions can only be addressed inside of experience; there is no objective answer separate from experience; experience is particular and circumstantial. Brandom (2011: 269) argues that the term 'experience' should not be used outside of talking about 'common sense' appearances, on the grounds that it is imprecise and infers that experience is 'given' rather than a cultural-linguistic construct. James' argument for the irreducibility of experience is not a case for foundational knowledge, which he refutes, rather he says, we cannot step outside of experience. The "experienceable environment" (1909 MT: 41) is the medium in which we function. Introspection is a tool, which we may seek to verify with logic, mathematics or the sciences, but these disciplines' assertion of knowledge can only be of limited contextually specific value too.

It is 'experience' that forms the basis of this new reading of James' writings I present here. I argue, that James' concept of experience stands in for the individual's relations between thinking and acting in the world. Darwin's theory of evolution, British empiricism, theoretical and experimental psychology, grounded in neuro-physiology and metaphysics and a psychological approach to religious experience, can be seen as key sources of James' overarching philosophies of pragmatism and radical empiricism, through which his concepts of experience permeate.

The Jamesian experiential framework, I put forward here, explained in chapter two, takes a

thematic approach schematised as four *intersecting* thematics of experience: (1) Action, habit, thinking-perceiving; (2) The intentional content of thoughts; (3) Truth and believing; (4) Feeling, affect and sentiment. These thematics set up the relations between thoughts and things and the evolutionary, environmental, physiological, cognitive, emotional, temperamental and aesthetic conditions of operation. The framework underpins the discussion of the *metaphor of multi-stability* and my claim that multi-stability is a defining feature of locative narrative and the field of expanded narrative.

**Methodology**

How can the parameters of the *metaphor of multi-stability* be articulated and its affects be measured and interpreted?

The development of a Jamesian experiential framework sets out the parameters of the discussion in which a dialogue is created between the thematics of experience and that of narratology, pragmatism, philosophy of mind and contemporary perspectives in cognitive neuroscience and perception. The research however, does not attempt to draw causal connections from science to that of narrative experience or vice versa, a danger that Marie-Laure Ryan (2010: 479) points out, that cognitive narratology,[9] as a discipline "squeezed" between speculative practices of the humanities and the descriptive practices of the sciences, can be subject to when it attempts to frame its speculative descriptions as causal claims. The

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[9] Ryan's (2010: 472) definition of classical narratology, is not concerned with selecting of individual features of text but that of "description, comparison and classification" across texts.

function of cognitive science in this research, is not as a foundation, but as starting points for hypotheses for creating the affect of *multi-stability* that feed into the design process; while the interpretation of experience is speculative and descriptive.

How can the affect of the *metaphor of multi-stability* be created in locative narratives?

In this speculative practice, case studies of locative narrative, together with participants' accounts of experience, function as tools informing further hypotheses and practical-philosophical questions raised by locative narrative. This is not a positivist empirical study of the experiences of locative narrative. Epistemic word-world problems and the fallibility of introspection, limit their potential value as evidence of causal explanations of misperception. Introspection cannot tell us about the underlying cognitive or neurological basis of perception, the specific contents of perception, or even capture everything of the phenomenal experience. They can tell us something of the narrativised, subjective experience from here, as it appears in the telling, as *transitions-felt.*

How can the affect of *metaphor of multi-stability* be measured and interpreted?

Based on the experiential framework, I develop a relational analytical approach to the interpretation of locative narrative experiences. Relational approaches within arts and cultural practices have chosen various frames for their analyses. Nicolas Bourriaud's *Relational Aesthetics* (2002) gives an historicist account of social cultural relations of art history informed by the Marxism of Louis Althusser. The context of the Jamesian relational approach I present here, is that of pragmatisms, of Dewey (1934) and Putnam (1992 [1983])

that emphasise the cognitive dimension of the environmentally, socio-culturally situated individual, and Noë's (2012: 14) relational enactivist approach to perception. The emphasis upon cognition and feeling in the pragmatist aesthetics of Shusterman (2000) (2011) and of process, in the writings of Massumi (2002) (2009) and Manning (2014).

This Jamesian relational analysis is concerned with identifying the components of an experience and their relative position to each other, their contexts and the interpretative perspectives employed (*values in experience*). All intentional relations involve our self (even when written in the third person), happening within a context, an 'experienceable environment', at some time in some place: the matrix of 'I', time and space, as James argues (1910 [1897]: 264). Relations are expressed in natural language as thought, writing, speech, symbolic and metalanguages. A taxonomy of relations, detailed in chapter two, is divided into five categories: (1) relations to objects; (2) relations between objects in time and space; (3) relations to ourselves; (4) relations to feelings and sensations; (5) relations to values.

The analysis examines relationships between: *(1) the participant, their responses and the actions that result from partaking in the narrative in the particular context or 'experienceable environment'; (2) modes of engagement with the narrative form or individual work, and (3) the interpreter-critic, the narrative and the contexts of analyses* (secondary analyses)*. The metaphor of multi-stability* expresses particular sets of relations in experience. This experiential and relational approach to interpretation has a practical application, it extends locative arts research methodologies with strategies for coding and evaluating participants' feedback, given in interviews or written accounts. It is practically applied to the development

and interpretation of locative narratives, illustrated by the four case-studies, examined in chapters 3-5.

## Summary of methods

1) Desk based research informing hypotheses upon the effects of the *metaphor of multi-stability.*

2) Investigating the effects *multi-stability* through the collaborative[10] development of locative narrative smartphone apps involving an iterative process of development and testing with small groups of participants through the successive production of prototypes.

3) Reflecting upon own experience and creating analyses.

4) Evaluating participant experience with semi-structured interviews and open questionnaires.

5) Classifying reported features of experience, identifying the *relations in experience* and phenomena reported.

6) Analysis and interpretation of reports in the context of the Jamesian experiential framework and broader intersecting domains.[11]

7) Developing strategies for producing the effect of the *metaphor of multi-stability* and incorporating findings into successive prototypes.

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[10] Detailed records of the collaborative process of development of the locative narrative apps, conducted with the developer James Brocklehurst, are included in Appendix 1. and discussed as case studies in chapters 3-5.

[11] A dialogue is created between the Jamesian thematics of experience and contemporary perspectives in cognitive neuroscience, perception and philosophers within and outside the pragmatist lineage and narratology.

**Thesis argument and contribution to knowledge**

I argue for the necessity of the field of expanded narrative on the grounds that: (1) it identifies historical, theoretical and tacit relations between practices and approaches not captured by single disciplinary categories, such as 'art', or 'game studies', or by media-specific labels such as 'digital' or 'interactive''; (2) It is defined by ideas and works that present a *challenge to the work's particular fiction or nonfiction form of storytelling.* The challenge has the potential to experientially *unsettle the ontological status of what* the audience/reader/participant takes *to be 'real', represented or imagined* – expressed by the *metaphor of multi-stability*.

This thesis contributes the *metaphor of multi-stability* that extends the observation that locative narratives can prompt perceptual ambiguity. The explication provides a cross-disciplinary interpretation how *multi-stability* may present in experience.

The development of the Jamesian experiential framework sets up the cross-disciplinary parameters for the thematics of experience. I argue that an experiential framework is necessarily for the analysis and interpretation of locative narrative, and more broadly the field of expanded narrative practices, in order to engage with the ontological and epistemological challenges of designing for *multi-stability,* that I argue is a key feature of the practice. Underpinned by this framework, the Jamesian experiential and relational approach to interpretation, extends locative arts research methodologies with strategies for coding and evaluating participants' feedback of locative narratives.

This thesis contributes an expanded definition of locative narrative that captures its *formal and experiential narrative complexity*. It is further extended by the *metaphor of multi-stability.*

Based upon the development of the four published locative narrative apps and ten prototypes, a series of practical strategies for creating the affect of the *metaphor of multi-stability* extend the form of locative narrative, that has a wider sphere of applicability in the field of expanded narrative.

**Structure of the thesis**

Chapter one: Introducing the Multi-Stable Field of Expanded Narrative, asks how narratological and cognitive framings of the terms narrative and interactive narrative function in the context of the widening arena of storytelling practices. An argument is made for a new field of fiction and nonfiction, that I call expanded narrative, defined by practices that present a *challenge to a particular form of storytelling*, in terms of their content, structure, style of writing or modes of audience engagement. A three pronged argument for the notion of language *as multi-stable* is made, drawing on the writings of Peirce, James, Wittgenstein, Jakobson and Barthes. The prefix 'expanded' emphases the subjective experiential dimension of narrative, allowing the discussion to step beyond the semantic and pragmatic axis and the interactive, non-interactive dichotomy, and for a new definition of narrative to be put forward, appropriate to the particulars of the field.

Chapter two: Introducing the Jamesian Experiential Framework and Jamesian Relational Analysis, is a new reading of the philosophy of William James. It focuses upon his evolving conceptualization of the concept of experience, that I argue is at the centre of his psychology and his philosophies of radical empiricism and pragmatism. The different aspects of James' experience are schematised here as four thematics: (1) action, habit, thinking-perceiving; (2) the intentional content of thoughts; (3) truth and believing; and (4) feeling, affect and

sentiment. The chapter goes on to introduce the Jamesian relational analysis and a taxonomy of relations, predicated upon the framework. This analytical approach is practically applied to the development and interpretation of locative narratives, illustrated by four case-studies, examined in chapters 3-5. More broadly, the Jamesian experiential framework underpins the discussion of the *metaphor of multi-stability* and the multi-stable field of expanded narrative. This new reading of James is both novel and timely. It contributes to the recent cross-disciplinary emphasis upon subjective experience in the arts, philosophy of mind and cognitive science that acknowledges James' antecedence. This framework extends the application of James' writing to conceptualization and analysis to the field of expanded narrative.

Chapter three: Locative Narrative a Genera of Expanded Narrative: antecedent practices and themes of locative narrative, diagrams arts and cultural practices, that I argue, are antecedent and coexistent with works of locative narrative. Drawing on a selection of locative narratives from the last two decades, I discuss how techniques and approaches of these precursors have been developed and contribute to the complexity of the locative narrative form. I argue that locative narrative's *formal and experiential narrative complexity* is the result of: (1) the authorial intention is to situate-integrate the story world within an existent location; (2) the structure of the narrative that is linked with the mode of interaction; (3) media that is experienced in relation to surroundings; (4) the reader-audience becomes a participant whose actions take place within the fictional world and the existent environment; (5) and locative narrative's particular spatial-temporal complexity of partaking. I go onto introduce the four locative narrative case studies developed within this research, that specifically engage with *the*

*metaphor of multi-stability*. Informed by the Jamesian experiential framework introduced in chapter 2, I give a relational analysis of the locative narrative *LociOscope, The Letters* (2014).

Chapter four, Expanded narrative, the Metaphor of Multi-stability and the Multistability of Perceiving and Misperceiving. In this chapter the theoretical underpinning of the perceptual aspect of the *metaphor multi-stability* is examined and its implications for and the design, development and interpretation of locative narratives. The ontological problem, 'how does the outside 'world' get inside the 'mind' and the epistemological problem, 'if perception is interpreted as 'faulty' how do we know what is real?', are considered in relation to the cognitive neuro-scientific term, perceptual multistability. The phenomena of illusions, hallucinations and misperceptions are discussed in relation to scientific naturalism and philosophical framings of neurophysiological processes that 'translate' the body's responses to perceptual stimuli into subjective awareness. This chapter goes on to look at how our relations to perceptual and imaginary objects can be affected by ambiguous objects, verbal suggestion, misdirection and environmental conditions. The role of language in framing of subjective and objective perception in relation to James', Wittgenstein (2009 [1958]: xi. 137) and Searle (2015: 23) and classical and analytical pragmatism. I argue, that drawing upon scientific research on perception can usefully inform the hypotheses forming and speculative strategies for designing locative narrative to prompt perceptual ambiguity. Results are measured in terms of their specifiable practical consequences, *in particular circumstances*, that in turn leads us to further experimentation. The *metaphor of multi-stability* is at the intersection between 'ways of seeing' and talking. Building on strategies developed in the first locative narrative case study, *The Lost Index, No.2 Landscape with Figures,* explores guided imagining and

fictional places situated in the museum environment, together with a relational analysis of experience.

Chapter five, Encountering the Disappearing Fault Line between Fact and Fiction…, examines the third aspect of the *metaphor of multi-stability*: Beliefs about what is real or true as multi-stable, in the context of fiction. James' framing of truth is applied to his few direct reflections upon literature, explored in the context of the related analyses of Wittgenstein, Goodman and Putnam, as proponents of the pragmatist lineage. The discussion then broadens to include the bifurcations in the status of fiction and relations between the notions of 'reality', 'truth', 'facts' and 'nonfiction; and the form of fiction, as a container of 'truths', 'facts', 'nonfactuals' and 'fictions'. The framing of fiction is examined as a way of speaking, as temporal structure and *like* reality. The ontological status of fictional entities is considered in relation to framings of what readers do, acts of interpretation, pretence and participation. Finally, the difference between possible worlds and fictional worlds is considered. I argue that James' notion that we occupy different worlds is concerned with environment and language and the context of experience. I argue that strategies for altering our relations to context can affect our beliefs and the truth value we give to narrative. The locative narrative case studies, *The Lost Index, No.2: The Turning* and *The Lost Index: NATMUS* are discussed in terms strategies for playing with context and the connections between story content, interaction mechanisms and spatially distributed narrative, together with a relational analysis of experience.

Chapter six, Strategies for Locative Narrative and the Quality and Affects of the Metaphor of Multi-stability, develops a Jamesian relational analysis of participants' structure of experience in response to introspective reports of the prototypes and published apps presented as case

studies. Throughout the research, participants' accounts and personal observations have had the function of 'pumps' for thinking around the practical-conceptual issues raised by the practice of locative narrative. These analyses are brought together here and presented as four speculative strategies for the development of the affect of multi-stability in locative narratives smartphone apps. I argue, that while these strategies have a media-specific remit, they can also be understood as illustrating how the *metaphor of multi-stability* may function and therefore there is a potential wider application for their leitmotifs within the broader family of expanded narrative practices. An explanation of the methods of the Jamesian relational analysis are presented and applied in the coding of the introspective reports of the four case studies, together with a diagrammatic representation of temporal structure of experience in relation to belief. The chapter concludes with a summary of locative narrative design strategies for evoking the affects of the *metaphor of multi-stability* and with starting points for further speculative practice. These strategies are put in the context of the defining five defining features of the form of locative narrative, discussed in chapter three, demonstrating the novel contribution of this research.

# Chapter 1

## Introducing the Multi-Stable Field of Expanded Narrative

> "Things tell a story. Their parts hang together so as to work out a
> climax. They play into each other's hands expressively. Retrospectively,
> we can see that altho no definite purpose presided over a chain of
> events, yet the events fell into a dramatic form, with a start, a middle,
> and a finish. In point of fact all stories end; and here again the point of
> view of a many is the more natural one to take. The world is full of
> partial stories that run parallel to one another, beginning and ending at
> odd times. They mutually interlace and interfere at points, but we
> cannot unify them completely in our minds."
> (William James P 1907: 143)

In this chapter I begin by asking what the term narrative might mean for the field of expanded

narrative in the context of narratological and cognitive framings. Narrowing the focus, I

delineate the field of expanded narrative and some of its categories of practice. The prefix

'expanded' emphases the subjective experiential dimension of narrative, allowing the

discussion to step beyond the semantic and pragmatic axis and the interactive, non-

interactive dichotomy.

Expanded narrative practices can be described as '*multi-stable'.* The metaphor of '*multi-

stability*' has three aspects; perception as multi-stable (above and below conscious

awareness); language as multi-stable; beliefs about what is real or true as multi-stable, resting

upon a feeling of rationality. The *metaphor of multi-stability* is predicated on the philosophy of

William James and in chapter two the theoretical bases are examined in further detail. In this

chapter, the notion of the multi-stability language is explored in the context of perspectives

from the philosophy of language and narratology, in order consider the implications of how expanded narrative practices' present challenges to their forms.

**Argument**

In this chapter I make a case for the field of expanded narrative, on the grounds that: (1) it identifies historical, theoretical and tacit relations between practices and approaches not captured by single disciplinary categories, such as 'art', or 'game studies', or by media-specific labels such as 'digital' or 'interactive''; (2) While the field of expanded narrative is broad and inclusive, in terms of the spectrum of media represented and intentions and contexts of the practice spanning the commercial to the esoteric, it is defined by ideas and works that present a *challenge to its particular form of storytelling, fiction or nonfiction.* The challenge has the potential to experientially *unsettle the ontological status of what* the audience/reader/participant takes *to be 'real', represented or imagined* – expressed by the *metaphor of multi-stability.*

**Interactive narrative and expanded narrative**

The label 'interactive narrative' is contentious. Definitions can be seen to occupy a spectrum, in the narrow sense it can be used to mean algorithmically generated narrative, more broadly as choice between narrative trajectories and in a general sense, interaction is used to refer to acts of interpretation, readers' responses to texts. Frank Popper (1993: 8) makes a distinction between "participation" in art works that he labels as "finite", such as painting or works that involve types of joining in, such as touching, moving or selecting, and that those that he exemplifies as involving "interaction", such as generative algorithms where there is a "mutual

exchange between the user and an 'intelligent' system". Richard Walsh's (2011: 76) definition

specifies that a participant's choices or actions must have an effect on the outcome of the

story in order for it to be classed as interactive. Interactive stories are emergent, where

interaction means "reciprocal and recursive" and "mutually modifying", producing "non-linear

complexity". The model of the "forking-path" and navigation through pre-authored choices

such as offered by "Choose Your Own Adventure" novels, Walsh regards as "superficially

interactive forms".

In Janet Murray's (1997: 128) definition of interactivity, participants should have "feeling of

agency", their actions should be meaningful and they should receive meaningful responses.

However, Murray (1997: 129) argues, agency can also be experienced in the ability to

navigate around a narrative world. Agency "goes beyond participation and activity", it has an

aesthetic dimension, where interaction is measured by the satisfaction experienced by the

participant. We could ask, how much more agency is afforded by navigating around on-screen

game world, to roaming imaginatively within the world represented by a linear novel? In each

case, the reader or player can only 'see' what is represented visually or textually and is left to

infer or speculate upon what is 'around the corner', that which is not presented or yet to be

explored.

For Marie-Laure Ryan (2006: 99) 'interactive' narrative is the negation between top-down

author/designer's planning and narrative meaning and "bottom-up input from the user". Ryan

develops four strategic forms of interactive narrative. The "internal mode" refers to the user's

projection into the story world by identifying with an agent, the "external mode" refers to the

user's situated outside of the story world. The "exploratory mode" refers to the ability to

navigate around a world but not change it, whereas the user's actions affect which plot they experience in the "ontological mode" (Ryan 2006: 107). The four combinations of the modes provide descriptors of the different genres, forms and interactivity.

Aspen Aarseth's (2012: 131) "variable model" of interaction says both narratives and games have "events", "worlds", "characters", and "objects" within each of these categories there are degrees and types of user interaction. Narrative events have "kernels" that contain the key elements of the narrative and "satellites" which have additional story events. Different genres of narrative and games have different balances of these categories. Some games have no key narrative elements, rather there are sets of interchangeable narrative parts. Adventure games have "dynamic kernels", partially interchangeable narrative parts. "Fully plotted stories" do not have additional story events. To extrapolate a theory of narrative coherence on the basis of Aarseth's model would perhaps to say that there is *a relation between participant expectation and author fulfilment*. The particular form, or genre, of narrative, indicates the level of coherence that the participant may expect. Playing the narrative driven video game *Walking Dead* (Telltale Games 2012 -2016), the participant is likely to expect both choice and coherence from the 'author', whereas the onus is upon players to create a coherent narrative from limited "kernels" provided by the board game *Cluedo* (Waddingtons 1949)*.*

Arguably, it is not the delineation of 'interactive' that's of primary importance for these definitions of interactive narrative and its variants, but the framings of 'narrative' and 'story', on which they supervene. Two categories of approaches to language can broadly be characterised as semantics and pragmatics. Semantics deals with the relations between words and meaning, and syntax refers to the relations between signs, whereas the domain of

pragmatics is concerned with the use and context of an utterance. However, these broad descriptors can only offer a vague indication of their spheres of interest. The terms *use* and *context,* for example, have different scopes (Korta & Perry 2015); *context* refers narrowly or broadly to the linguistic context of the speaker and situation and location of the utterance. Charles Morris (1938), credited with introducing the term pragmatics based upon Peirce's triadic sign system (Bernstein 2010: 134), defines pragmatics as "the relation of signs to their interpreters", contrasted against the semantic focus upon the relation of signs to objects.

For analytical pragmatist, Robert Brandom (2006f: 3), the scope of pragmatics is "to encompass meaning-conferring aspects of use in general", that joins up with semantics; "to say and mean something", that has semantic relations between words and the world. Brandom's (2006f: 1) solution is to construct a "metavocabulary" that states the relations between the meaning of a particular vocabulary and its use, from which a modal logical vocabulary can be developed. Jacob Mey (2005: 463) argues that an important insight of pragmatics is that grammar, syntax and the meaning of words does not necessary reflect what language "does" in terms users' "production and consumption" within the particular or social context.

Definitions of narrative often articulate semantic and/or pragmatic *perspectives*, while not necessarily engaging in formal linguistic pragmatics. Semantic approaches to narrative, focus upon the relation of words and how they obtain their meaning, in relation to the system of language in which they operate and also in relation to narrative as a meaning making systems. Roland Barthes' (1977: 116) narratology gives a semantic account of narrative that is concerned with discourse, rather than use. Roman Jakobson (1960: 361) too says the

logicians concern with the normative 'word to world' relation is outside the study of poetics and linguistics. Jakobson's semantic structural analysis has a "synchronic" (1960: 362) remit, concerned with of any given stage of the production of the text, for example, the different rhythms in which a poem can be read are considered "*verse instances*", but not the intentions involved in acts of delivery (1960: 365).

The Russian Formalist's, influenced by the linguistics of Ferdinand Saussure, developed semantic structural analyses of literature that identified the basic elements of narrative and the logic that governs their configuration. Boris Tomashevsky's (1925) article 'Theme', defines narrative in terms of *fabula* (story), the chronological order of events, and *sjuzhet* (plot), the ordering of events by the narrative's form. The 'narrative turn' (Kreiswirth 2008: 378) in the 1960's, associated with Roland Barthes, Claude Bremond, Gérard Genette, A. J. Greimas and Tzvetan Todorov, gave a broader focus to structural linguistic accounts of narrative, from literature to the storied accounts of people and events in all domains of life and the cognitive processes associated with communication, as Ryan also notes (2006: 3).

Tzvetan Todorov's (2003 [1966]: 382) defines a literary work by the distinction between "story and discourse"[12], after the Russian formalist *fabula-sujet*[13]. He draws a distinction between "sense" and "interpretation", where sense is framed in terms the function and relations between parts of a narrative and interpretation pertains to the subjective world of

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[12] Todorov (2014 [1966] 382) credits the "explicit" formulation of story and discourse to Émile Benveniste.

[13] Todorov published as translation of a number of Russian Formalist articles in 1965 (*Théorie de la littérature, textes des formalistes russes*) including that of Tomashevsky. There are various spellings of *sujet* (*sjuzhet, sjužet*) *sujet* is used here, as per Todorov's article.

the critic.[14] Todorov (2014 [1966] 383) emphasises that the 'story', evokes "a certain reality of events", that seems to pertain to past experience, which is therefore understood to be of a "real-life". Story, he emphasises, is also the narrating of the event, by someone, in some medium. Therefore, to talk of 'story' is an "abstraction". It can't literally be separated from discourse, it is always a "perceived and recounted by someone" (2014 [1966] 384).

Definitions of narrative have subsequently upheld or rejected the story-discourse dichotomy, also expressed as story-plot, story-narration and story-representation. H. Porter Abbot (2007: 40) argues that the story and its representation distinction is the "…the founding insight of the field of narratology". While Hayden White rejects the story-discourse distinction on the grounds that the story is also telling, as Todorov had previously asserted. White (1981:1) characterises narrative as a solution to the problem of "how to translate *knowing* into telling." Narrative, for White, is both story and discourse, "story-discourse". It is a "recounting" or "narrating" or "as a *way of speaking* about events" (White 1981: 3), distinguished from other types of texts by its grammatical form: the role of the pronoun "I", demonstrative pronouns, adverbial indicators, such as, "here", "now", 'yesterday', 'tomorrow' and the use of the third person, all of which allow the reader to identify a narrative as such. Events have significance for each other, even those that might seem disparate, if they share a common subject and belong "to the same order of meaning". This rule, he argues, creates ontological connections and allows discrepancies to be disregarded, it "translates difference into similarity" (White 1981:15); it is at the end of a story that the structure is revealed, showing the relations between story and plot to be coherent (1981:19).

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[14] A point similarly made by Jakobson in *Style in Language* (1960). The difficulty of this differentiation is discussed from the pragmatist anti-foundationalist perspective in the following chapters of this thesis.

Other semantic approaches to narrative define the minimal requirements for language to be considered a narrative. In *Introduction to the Structural Analysis of Narratives* (1977: 80), Barthes, responding to Russian Formalism, describes the sentence as forming a hierarchical system of levels, "phonetic, phonological, grammatical, contextual" (1977: 83), from which meaning is built. Discourse, defined as a set of sentences, is the "basic unit" of narrative. *Narrative is defined as a number of units of content.* Meaning, the criteria of a unit, is determined by how it functions, directly within the plot or indirectly, as atmosphere or contextualising detail.

Todorov and Weinstein (1969: 70) offer a "typology of plots" where the minimal plot has a "shift" between two states of "equilibrium"[15] that are "similar and different", between which a "period of imbalance is composed of a process of degeneration and a process of improvement" (1969: 75). Narrative *form* does not necessarily require an extensive *series* of events (or units of meaning). A proposition with two clauses may be sufficient to constitute a plot, is a notion expressed in novelist E. M. Forster's (1955 [1927]) aphorism, "The king died and then the queen died of grief". In their study of oral narratives, William Labov & Joshua Waletzky (1967) demonstrated the cross-cultural prevalence of a minimal structure of communicating human experiences, where "…the order of narrative clauses matches the order of events as they occurred" (Labov 2010: 2). Labov defines narrative as "a way of recounting past events", arguably a version of 'narrative defined as a way of telling'.

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[15] Todorov (1969: 75) explains "This term "equilibrium," which I am borrowing from genetic psychology, means the existence of a stable but not static relation between the members of a society; it is a social law, a rule of the game, a particular system of exchange."

The term 'participation' has been used in cognitive psychology to describe the processes of imaginative construction involved in engaging with representations. Cognitive psychologist, Richard Gerrig (1993: 14), extends the metaphor of reading as a performance, after Bartlett (1932). Wolfgang Iser's (1974: 68) phenomenological approach to literary theory characterises reading as a process, after Whitehead, where "dynamic interaction between the text and the reader", itself a "self-regulating system" with "constant feedback" in the form of the reader's responses to the text, that in turn contribute to interpretation. For Iser, reading "has the character of an open-ended situation". The idea of a mutually evolving system, in Iser's sense, involves the evolving context in which the narrative exists, the reader and the happening of interpretations.

In addition to the semantic meaning of words, pragmatic concerns of context and use, are to the fore, in Gerrig's (1993) definition of narrative that puts forward an even more truncated minimum form. A single noun, for example, the word "Texas" (1993: 4), can be sufficient to constitute a narrative, or rather prompt the experience of "transportation" to a narrative world. It is the *consequences* of narrative that are important for Gerrig's definition. Narrative is taken as a metaphorical vehicle in the psychological act of reading, watching or listening, where interpretation involves immediate recognition and the *performance* of drawing inferences and the imaginative "construction" of scenarios.

Psychologist Jerome Bruner (1986: 14) defines stories as two distinct "landscapes", that of action, "...agent, intention, goal, situation, instrument something corresponding to "story grammar". The other is "the landscape of consciousness" what characters "know, think or feel, or do not know, think or feel." Bruner (1986: 17) argues that while grammaticians deal with

minimal structures that are required for qualification as a story, narrative is concerned with the ways in which changes in human intentions are portrayed and interpreted. Drawing upon studies from developmental psychology, Bruner argues that an "irreducible" feature of human behaviour is the attribution of causation that extends to our engagement with narrative.

David Herman's (2002: 2) cognitive framing blends semantic and pragmatic emphases. Narrative is defined as an account of what has happened to people over time. He argues that the representation of temporal events introduces "Disequilibrium" the portrayal of disruption to the status quo, which is also a feature of the reader's "mental model" of the "storyworld". He argues, disequilibrium, conveys the "qualia" or subjective quality of the experience. For Herman, it is not the subject matter that determines a text as a narrative but the way in which the content is regarded. This definition takes narrative as a form of modelling human interactions with the world, with the potential to affect the reader in ways similar to that depicted.

We can ask, can narrative be *defined as* a mode of engagement with a text? Does the 'participant' adopt a particular attitude towards the status of a work that affects how they respond? Kendall Walton (1990: 202) argues that the display of fear in response to narrative representations (such as horror films) is not genuine fear on the grounds that if we really experienced fear we act by running out of the cinema. However, we could argue after James (CER 1920 [1894]: 350), that emotions don't have a fixed identity, that there are similar qualities that we can identify in certain situations but the *total context* that determines how we act. Therefore, I argue that audience members don't need to 'make-believe' emotions they can experience the emotions or volitions that are congruent with experiences in non-fictional

situations, without needing to act on them.[16] There are clearly differences between how we regard and behave towards fiction and what we take to be news or an account of personal events. While the subject matter may be similar, the form and framing of fiction act as indicators of its status, signalling the types of participation expected from audiences.

Ryan's (2006: 8) definition of narrative as, "the conditions of narrativity" makes narrative a contingent quality. Narrativity has different modes, "spatial", "temporal", "mental", "formal", "pragmatic" and "semantic" properties, that a representation presents when certain conditions are met: that the world of the story is produced through the actions of "intelligent agents" (human or aliens, robots or otherwise). Ryan (2005: 347) also makes the story-discourse distinction, narrativity is the discourse, were as stories are "cognitive constructs" comprising of: (1) a mental representation of world with agents and objects; (2) the world undergoes changes of events "not fully predictable" caused by "accidents" or intentional actions of agents (although events not being fully predictable is debated, Ryan points out); (3) the causal events are linked to mental states of characters (emotions, intentions). In this sense, a mere depiction of place is not sufficient to count as a narrative but it can qualify as such if it comes into being through the of rational processes of telling. However, I argue, that the reader can provide both of Ryan's criteria, they are the 'intelligent agent' for whom the represented place is changing over time.

Ryan (2006: 7-8) and Herman (2009: 193) argue that it is the concept of the storyworld-as-idea that allows, for example, Middle-earth to be identified as the same, or consistent with, the

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[16] The question of distinguishing between fiction and nonfiction is discussed further in Chapter 4 of this text.

Middle-earth that features in J. R. R. Tolkien's books and also in Peter Jackson's films. Can the content of the thought (the story) be separated from the act of thinking? The discourse, the narrative representation, I argue, as Todorov and White have pointed out, is part of the story, whether it takes the form of a "cognitive construct" (a thought) or a representation, text, image, animation, etc. In what ways is thinking about the storyworld different from speaking or writing down those same propositions? Ontological differences between the storyworld and narrative, authorial intent or differences in content and/or form of medium of thought and material representation of the storyworld, or perhaps the reader's mode of interpretation? Ryan & Thon (2014: 3) argue that it is the quality of narrativity possessed by stories that allows a storyworld, to feature in different media.

I argue, when the characteristics of a story (place, characters, events) occur in different media, it is their *specifiable content* that we assign to Middle-earth or Wonderland or the world of Harry Potter. That specifiable content is what a particular story world means for us. The question becomes a traditional philosophical problem of substance; what qualities are essential to an object's identity? We could say, 'we identify the depiction of Middle-earth as such because it appears to have consistent qualities with those we associate with our prior experiences of Middle Earth, whether via reading the books, conversations or film advertising', etc. In William James' (1907: 85) terms, there are only modes of appearing. A table has 'brownness' or 'hardness' in the context in which it is experienced. The *modes of appearing* can be taken as the 'reader-filmgoer's' interpretation of a storyworld, whereas 'ways of telling' emphasises the intended meaning of the book, film etc. Some consistent semantic content, the context and event of their *appearing,* may be all the conditions that are required for a story's world to be identified in different media.

Popper's and Walsh's framing of interactive narrative emphasises structural reconfiguration, resting upon a semantic framing of narrative rather than pragmatic concerns for the acts of engagement, interpretation or the material consequences that may come after participation with a work. This is not to say that form and modes of engagement do not supervene on one another, only that Popper and Walsh's definition results in this separation. Murray's emphasis upon agency as semantic meaning and aesthetic affects, articulates semantic and pragmatic concerns. While Ryan's quality of 'narrativity' makes interaction a quality. I propose extending Ryan's relational, conditional emphasis to a new definition of narrative applicable to the field of expanded narrative, the umbrella for works that present *a challenge to the form*:

(1) narrative is defined *as a value* attributed to a representation, in particular specifiable circumstances; (2) a representation becomes a narrative when the relations between subjects and objects are articulated in relation to the reader.

*A narrative is an experience happening for the reader-participant in which a representation (an image/text/sound/ and/or thought) of an experience happening can be described as specifiable relations between a subject and its objects.*

**Expanded narrative**

The field of expanded narrative includes fiction and nonfiction works that present a *challenge to a particular form of storytelling, fiction or nonfiction*, in terms of the story content, structure, mode of writing or the ways in which the audience engages with the work. How is an approach to storytelling deemed to be 'challenge'? Works of expanded narrative *tend not to be*

*static texts* that require sequentially *linear acts of reading*, however what is important is the artist or commentator's arguments that articulate the 'expanded' character of the work, rather than adherence to a predetermined benchmark. *Challenging the form* is not the preserve of recent artists or works. Authors and artists from the past who intentionally confronted their readers with their challenge to the form, such as Lawrence Sterne and his work *The Life and Opinions of Tristram Shandy, Gentleman* (1759-67) or epic dramas portrayed in 19th century panoramas that set out to amaze audiences with their illusionary painting and lighting techniques, are examples here. Antecedents to expanded narrative also include works, that from our 21st century perspective, we may describe as expanded narratives, although they were not necessarily recognized in these terms as the time, such as, medieval marginalia.

Expanded narrative's definitional rubric of the *challenge to the form* emphases participant engagement with narrative that does not necessitate or exclude "mutual exchange" between the user and the system, or disregard 'static' representations of a novel or painting, if the *challenge* to the form is focused on some other aspect of story content, structure, mode of representation (content is understood here as an aspect of form). The selection from a pre-authored story trajectory that digital literature, such as, *Jellybone* (2016) by Kate Pullinger or literary puzzles such as *Device 6* (2013) by Simogo, can be framed as a challenge to the linear text. However, while navigating around though a city, park or building to experience a narrative may be a challenge to the linear text, it does not necessarily present a challenge to locative narrative, larp or pervasive game in it is arguably a key feature of those forms. While these modes of engagement do have consequences for interpretation and they may also result in actions that exceed the authors' intentions, such as players bending or creating their own rules in response to the unpredictable situation of a public space.

**Fig. 1:** Table of Expanded Narrative practices*.*

| Expanded Narrative Practices<br>(Expanded narrative practices are not mutually exclusive. Features of the forms can apply across categories and in some cases individual practices can be given more than one description.) | |
| --- | --- |
| **Forms** | **Examples of works** |
| *Branching-paths:*<br><br>The model of the branching path, referred to as "trees" (Bolter 1991: 107) or "forking path" (Moulthrop 1991: 125) is a method of structuring narrative based on bifurcation of choice points. Diagrammatically, the narrative may resemble the veins on a leaf, dividing and subdividing. Narrative trajectories may be independent or interconnected. This is a broad category that describes an approach to *narrative structure*, and as such, encompasses a range of practices, for example, role playing to computer text adventure, locative narrative, hypertext fiction interactive video. Mechanisms for readers'/participants' selection of 'paths' may require dice rolling, solving puzzles, searching or making logical or aesthetic choices. | Branching-paths feature in many forms from books such as 'Choose Your Own Adventure' books, written in the second person. Structured as decision trees, readers are turn to a page based on their choice of options. Originally conceived by Edward Packard, first title *Sugarcane Island* (1976)<br><br>*Fighting Fantasy* novels developed from table-top role playing *Dungeons and Dragons* use a branching path structure combined with additional features such dice rolling and player health and skills. Created by Steve Jackson and Ian Livingstone, first title *The Warlock of Firetop Mountain* (1982)<br><br>Computer adventure games: *Colossal Cave Adventure* first developed in 1976 as text only, by William Crowther. See, Nick Montfort (2005) *Twisty Little Passages: An Approach to Interactive Fiction.* Mass. MIT<br><br>The hypertext works, such as: *Victory Garden* (1992) by Stuart Moulthrop. |
| *Interactive Storytelling*<br><br>Computer generated stories configured from of pre-authored story events, scenarios or sentences, triggered response to participant's actions such as speaking, writing responses and/or completing tasks. | *Novel Writer* (1973) Sheldon Klein<br><br>*Façade* (2005) Andrew Stern and Michael Mateas<br><br>*Wordsmith* AutomatedInsights (2015, |

| | |
|---|---|
| Models of linear narratives developed by structuralist linguists[17] have also been adopted by games and A.I. developers (Spierling et al 2010: 299)[18]. A linear story can be reduced its essential 'events' and 'functions' of characters within an event, from which alternative trajectories can be devised. The methods of 'Abstraction' and 'Planning' (Spierling et al 2010: 299) Spierling & Hoffman 2010:50) have been utilized to generate multiple alternative narrative trajectories. 'Abstraction' is the process by which all of a story's detail and particulars are removed leaving only the essential structure that can be described as key events and the functions of the characters. The 'Planning Model' is the process of working out the structure of an interactive story by considering how an abstracted story can be broken into a series of nodes that can be reconfigured in particular ways by considering the node's prerequisites, co-requisites and consequences, for example, when deciding what a character may do next that makes causal sense in the context of the current trajectory and the 'state of the world'. Both approaches, although differing in their conceptual framing, conceive of the narrative as a number of sections or nodes that can be reconfigured depending on the predefined rules that govern the node.<br><br>*SGAs (story generator algorithms)* automated generation of artefacts created by computational procedures, e.g. automatically generated fiction. Pablo Gervás (2012) credits the relatively new term, to Hamburg Narratology Research Group, but traces the development of algorithm generated stories to *Novel Writer* system, developed by Sheldon Klein (1973). | 2016) platform Automated Insights |
| *Interactive fiction*<br><br>This term has been applied variously to all the categories of expanded narrative in this table. Here I use the term more specifically to refer to fiction written to be read on digital devices that may involve interactive features such as hyperlinks to footnotes or additional or related content (sometimes referred to also as Electronic literature)<br><br>Interactive fictional can refer to online communally or co-authored works where story paragraphs or chapters, sections or the parts of particular characters. | *The Silent History* (2012-2013) Eli Horowitz, Kevin Moffett, Matthew Derby, Russell Quinn and collaborators.<br><br>Oolipo authoring and hosting platform for digital fiction that uses visual tools to structure narratives. Works include *Jellybone* (2016) Kate Pullinger<br><br>Online collaborative writing, 'wiki novels such as, *A Million Penguins* (2007) Penguin, De Montfort University, Pullinger. |

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[17] Vladimir Propp *Morphology of the Folk Tale* (1928)

[18] Structuralist approaches to narrative in the development of A.I. storytelling systems been given particular prominence by the current EU co-funded IRIS project in *Integrating Research in Interactive Storytelling* (2009-11).

| | |
|---|---|
| *Live-action*<br><br>The free improvisation of dialogue, actions and narrative events or in response to pre-scripted narrative scenarios, e.g. table-top-role playing, live action role playing (larps), historical re-enactment. | Table-top role playing, such as:<br>*Chainmail* (1971) Gary Gygax and Jeff Perren<br>*Dungeons and Dragons* (1974 -) Gary Gygax and Dave Arneson, TSR<br><br>Larps, such as:<br>*Europa* (2001), Vestby, Norway dir. Eirik Fatland<br>*Vampire: the Masquerade* (2016) Poland, White Wolf and Dziobak Larp Studios<br><br>*Operation Black Antler* (2016) Blast Theory and Hydrocracker<br><br>*Forum* theatre, originally developed by the Brazilian theatre director Augusto Boal. Audience members to intervene at key moments in the play and consider alternative choices that the characters may make. |
| *Fictional places:*<br><br>On-screen or location specific narratives where story events are improvised or encountered in a particular or nonspecific sequence, such as, open world computer games, promenade theatre, theme parks or locative narrative. | Banksy *Dismaland* (2016), Weston-super-Mare themepark.<br>Promenade theatre/fictional scenarios You, Me, Bum, Bum, Train<br>*Sleep No More* (2011) Punchdrunk, Barrett, F. & Doyle, M. Dirs.<br><br>VR storytelling, a nascent form spanning simulations, games and film, recent examples:<br>*Giant Cop* (2016-17) Other Ocean for VR headset<br><br>Computer generated environments:<br>*Second Life* Linden Lab<br>*Minecraft* Markus Persson and Jens Bergensten, Mojang, 4J Studios |
| *Storied games:* | Puzzle novellas, such as:<br>*Device 6* (2013) Simogo iPhone/iPad |

| | |
|---|---|
| A varying degree of narrative content that may involve a scenario or backstory as a setting for a game, or fully developed stories that has an equal emphasis as the game play. The narrative may take the form of printed text or non-scripted dialogue between players who may be in and out of character. Puzzle novellas, board games, open world video or narrative driven video or mobile games. | *Lifeline...* (2015-2016) Dave Justus and 3 Minute Games iPhone/ Apple Watch

Board games, such as: *Cluedo* (1949) Waddingtons *211b Baker Street,* (1975) Antler Productions *Pandemic* (2007) Matt Leacock and Z-Man Games

Narrative driven video games, such as: *Last of Us* (2013, 2017) Naughty Dog and Sony Computer Entertainment. *Walking Dead* (2012 -2016) Telltale Games

Openworld computer games, such as: *Dear Esther* (2007, 2008, 2010) Dan Pinchbeck and The Chinese Room. Illustrative and atmospheric British coastal landscape explored from first person perspective. Fragments of narrative as text and voice, sound effects and transitory orchestral score are triggered. Unspecified goals become overcoming problematic situations, as if really lost in a landscape or trapped in the caves. |
| *Fragmentary narratives*:

Stories accessed in parts, delivered via existent media platforms, such as, twitter fiction or autobiographic or feigned autobiographic blog posts. | Twitter fiction: #TwitterFiction

*The Repurposed Magical Tent* (2012- ) Multi-linear Twitter poem by Lytton Smith and James Brocklehurst |
| *Transmedia fiction:*

Story content delivered across different platforms such as film, blogs, print media, live performance, events, e.g. TV series with backstories 'found' on blogs of characters. | *The Beast* (2001) Microsoft *Majestic* (2001) Electronic Arts

*Assassin's Creed* (2007-2016) *The Lizzie Bennet Diaries* (2012- ) Hank Green and Bernie Su |
| *Locative narrative:* | *Forest Walk* (1991) Janet Cardiff |

| | *Trace* (1999) Teri Rueb |
|---|---|
| Narrative written to be experienced specific places or types of locations, delivered via mobile devices and/or analogue methods. Often heard on headphones. (Examined further in chapter 2). | Story-driven locative heritage experiences, such as: *34 North 118 West* (2003) Jeremy Hight, Jeff Knowlton and Naomi Spellman *Homing* (2016), Harris Library, Preston Jen Southern and Sam Thulin<br><br>Story driven location-based games, such as: *Zombies, Run!* (2011-) Six to Start and Naomi Alderman<br><br>Pervasive games, such as: *Machine to See With* (2010) Blast Theory |

## Expanded narrative and multi-stability

*We can diagram the parameters of the field of expanded narrative as the authors' intention to challenge to form and their explicit or implicit engagement with multi-stability.*

- Perception as multi-stable (above and below conscious awareness)

- Language as multi-stable

- Beliefs about what is real or true as multi-stable; resting on a feeling of rationality

Here the multi-stability of language is explored in the context of perspectives from the philosophy of language and narratology. Peirce's "Modality of the Possible", James' relations of concepts and meaning, Wittgenstein's concept of a "language game", Roman Jakobson's 'Poetic function' and Roland Barthes 'polysemy' are considered as ideas that articulate perspectives on the multi-stability of language.

Language *as* multi-stable, is the aspect of metaphor of multi-stability that refers to the production of linguistic uncertainty.

1) *The multi-stability of language supervenes on the normative functioning of language.* A 'generally' agreed meaning is required in order for there to be a movement between alternate meanings. The normative functioning of language can be described as having different modes of operation as described by Wittgenstein ("language-games"), Peirce (truth function, "Modality of the Possible"), Jakcobson ("poetic" and other functions), Barthes ("polysemy) that place different emphasises.

Thoughts, for Charles Sanders Peirce (1905a: 170), are signs and "mostly of the nature of language." The meaning of language is that which is *generally* agreed upon, in the societal context of its use. However, signs are vague. Peirce says, unless people are dealing with precise and abstract languages like mathematics, "their meaning consists in the implications and non-implications of their words" (Peirce 1905b: 488); implications are indeterminate. Meaning is a translation of a proposition in the forward flow of translations and propositions (Peirce 1905a: 173). But of the many possible meanings,

> "Every utterance naturally leaves the right of further exposition in the
> utterer; therefore, in so far as a sign is indeterminate, it is vague, unless
> it is expressly or by a well-understood convention rendered general."
> (Peirce 1905b: 487-488).

To affirm that something is a pen is to confirm all the particulars of a pen. To deny that something is a pen is to "vaguely" deny some, or all, particulars of a pen. When a predicate is unanalyzable, for example when knowledge or experience does not permit it (the pen *often*

leaks), it does not affect whether the predicate is affirmed or denied, it is an intermediary, "nascent" state.

> "…there lies just beneath the surface of what is explicitly said, the idea
> of an endless series of such intermediaries." (Peirce 1905b: 490-491)

To understand the ultimate nature of meaning Peirce says you need to understand modality and what it consists. Words used according to their characteristic applicability have the "Modality of the possible" (Peirce 1905b: 494) in relation to what is known. If something is not known to be false then it is "*possible",* if it is known to be "true" "it is more possible". Merely possible has a *vague* possibility. Direct recollection of the state of things is the most subjective modality, that of the "mode of *Actuality"*. If there is only one meaning that "accords" with alternatives this is the "mode of "*Necessity"* (something has to be the case)*.* If there is indeterminate between possibilities this is the "mode of *Possibility."* It is this idea of "intermediary between generality and vagueness", when a sentence's meaning cannot be confirmed in relation to what is known, that there is the potential for indeterminacy. We can talk about the potential of narrative unsettle the *generality* of terms.

In Peirce's framing, the shared social-linguistic context permits the general meaning of terms and also their vagueness. Words have *general* meaning that can be described in as having different modes of representing truth, or the current perceived state of an object's relation to its context. The word-to-world relation is a judgement that is made about what is known in situation in which the term is used.

In Wittgenstein's *Philosophical Investigations,* we share a public language, there is no 'private' language of thought. Language functions normatively. What a word means depends on its use

with a "language-game" (Wittgenstein 2009 [1958]: 21), a transaction between users in

relation to a number of contexts: its semantic meaning, the tone of the speaker, the situation.

It is not the truth of the word in relation to the general meaning that is important, but context

of use and the network of relations entered into.  The difference between a sentence used as a

command, "five slabs!" or as a number, "five slabs", is the role of uttering the words in the

shared "language-game" (Wittgenstein 2009 [1958]: 21). Words can be used in a number of

ways to signify different things. To say that the word 'slab' refers to a building material, and

not to 'block', is related to the use of the rest of the words "already known" (2009: 10).


2) *Normative functioning and the multi-stability of language operate in relation to*

*particular context,* be it on the page and the act of reading, spoken or observed. There

is a transaction between users or between the text and the participant.


For Wittgenstein (2009 [1958]) how letters, words and sentences are interpreted relates to

the particular language the speaker has learnt and associations between the word and the

object, and the intonation and the object, and the context of use. The symbol '*c'* in one position

can serve as a letter in a sequence of letters or it can signify a number in a list. The utterance

of one word "slab" can stand in for the whole sentence from which is inferred – "bring me the

slab". *The sense* of the whole and the "shortened sentence" is the same; the meaning is

conveyed by their use and not by their individual "verbal expression" (2009 [1958]: 20). The

speakers' tone might be the same in both cases but the intonation may be different, it may be

uttered as question. Language-games are like different types of games, they do not have

identical features in common but they do have a "network of similarities", "…a complicated

network of similarities overlapping and criss-crossing: similarities in the large and in the

small" (2009 [1958]: 66). In Wittgenstein's terms, the identity of words is not fixed, nor their relations to the world, the emphasis is upon the context of use, the transaction between users and the network of relations the use of language enters into.

In 'Death of the Author' (1977: 146) Barthes's writing takes a more pragmatic turn emphasising the text as "performative" [utterances] after "Oxford philosophy", such as J. L. Austin and Wittgenstein. The literary work does not communicate a meaning directly from the author, and writing itself is "intertexual" – a composite complied from a 'storehouse of language', to paraphrase Peirce,[19] and its previous configurations.

> "...the book itself is only a tissue of signs, an imitation that is lost, infinitely deferred...the space of writing is to be ranged over, not pierced; writing ceaselessly posits meaning ceaselessly to evaporate it, carrying out a systematic exemption of meaning." (Barthes 1977: 147)

James emphases the role of context and the particular use of language for interpretation and meaning. Words have relations to the rest of the sentence and external relations to the context, the "experienceable environment" (James MT 1909: 42fn). The word 'winter' suggests certain temperatures in a particular situation but it cannot guarantee them, the term must take account and in the context of sensible facts (P 1907:265). Terms guide us towards what we may expect, they are "instruments" but it is in the stream of life, in the particular happening of a context.

3) *Multi-stability of language is a play with possibilities*. There is a disruption to the flow, in which there is a flip between the self-referential, an awareness of the act of

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[19] Peirce's (1905b: 498) expression is "our storehouse of knowledge" on which we base our actions.

interpretation, and the pointing towards alternative meanings. The double meaning of words or expressions does this, as Jakcobson points out. Multi-stability translates similarity into difference or from difference there is similarity.

In Jakcobson's (1960: 358) structural analysis of language, there are two modes of verbal behaviour "selection" that is paradigmatic and metaphoric, and "combination" that is syntagmatic and metonymic. "Selection" of words is based on equivalent meaning, whereas "combination" is based on the relation of one term to another. Language has a range of different "functions" from "referential" to "emotive". The "poetic function" (1960: 356) describes the operation of a word to move between meanings or emphases in the same sentence. In the case of paronomasia, puns, a homophone has an overt meaning the syntagmatic relation of words in the sentence and its second meaning that "projects" as "equivalent". The "poetic function" can also involve a play with phonemes, for example using assonance to convey emphasis or infer alternate interpretations. The relations between words in the sequence is not just one of contiguity, it is a "device" for creating stress, contrast, pauses, no pauses, that can have sonic affects as well as the meaning of the words.  The poetic function promotes the materiality of signs, Jakcobson argues. Jakcobson (1960: 351) acknowledges that his account of poetics does not engage with logicians' objections to word-world relations or with the truth-values of a given discourse, but this "exceeds the bounds of poetics and linguistics generally".

Words can have multiple meanings, James argues, they are designated subjective or objective, words of "elementary sensation"– hot, bright, light, red etc. can stand for both qualities and sensations. We also often connect a sensation with an object from which it arose, "an orange

colour" (PP 1890a: 194) or a scent of rose. It is the context of sentence and its particular

conveyance that "name its delicate idiosyncrasy." If we extract the subject from a sentence, we

separate it from "the act of knowledge" (PP 1890a: 275).

For Barthes, readers' interpretations of texts are interpretations of their structure. Some texts

aim to 'anchor' (Barthes 1977: 39) meaning using captions or images, while others,

particularly images, maximise the polysemous capacity of signs, to promote poetic play,

provoke uncertainty, anxiety or a breakdown of order.

> "...all images are polysemous; they imply, underlying their signifiers, a
> 'floating chain' of signifieds, the reader able to choose some and ignore
> others. Polysemy poses a question of meaning and this question always
> comes through as a dysfunction, even if this dysfunction is recuperated
> by society as a tragic... or a poetic...game...various techniques are
> developed intended *to fix* the floating chain of signifieds..." (Barthes
> 1977: 35-36)

Barthes argues that while the language of narrative, distorts temporal structure, it both

multiplies meaning and creates ellipses within sentences in which readers "'fill in' narrative

space" (Barthes 1977: 90), an action that is central to Iser's (1978: 165) phenomenological

account of reading. Barthes likens the complexity of narrative structure to a chart where units

can be "integrated" in continuous, discontinuous and heterogeneous movements forward or

backward. Narrative content "compensates" for any incomprehensibility that may occur in

complexities between the levels. The connections and disconnection in the narrative structure

means there is "an incessant play of potentials" (Barthes 1977: 120).

4) *Multi-stability of language draws attention to the materiality of signs and the felt
   experience of interpretation.* The translation of lived experience into fixed concepts are

the acts of mediation that the performance of language makes evident, when we identify that words don't operate as we expect. Structure meets use; as James' argues words are always exceeding themselves, pointing away to what the experience could refer to and what is *felt*, "felt on the fringe".

James describes that on the one hand concepts are fixed. Names do not explain things, they are only concepts abstracted from the stream of life, an "instrument" (SPP 1911: 90 footnotes) that can guide us in what to expect, but not the way things are or will be.

*Meaning is a felt process*, of a situation happening. Every word in the sentence has a "halo of obscure relations" (PP 1890a: 265) with other words and things that may potentially join the reader's train of thought. Relations between terms contribute to how they function, what they do and how they may be interpreted. There is hardly a linguistic utterance, he argues, that does not express the relation between objects and our thought that we understand as objective relations with the world or subjective relations to ourselves (PP 1890a: 245). Meaning is dynamic; it is *felt* to be inappropriate or satisfying.

## Conclusion, multi-stability and expanded narrative practices

What are the effects that follow in our experience for multi-stability of language with a form of expanded narrative? Authors may seek to 'anchor' (Barthes 1977: 39) the range of possible meanings or choose to play with the vagaries of natural language, creating potentials for multiple meanings. The multi-stability can have a functional role, shifting the of meaning of a

term or discourse in relation to a narrative's plot, syntax or the context of use and generating enigmas, posing figurative connections or casting the reader as a protagonist.

Multi-stability can shift the parameters in which narrative represents (or tells) and participants act. For example, in Blast Theory and Hydrocracker's participatory theatre *Operation Black Antler* (2016), participants are undercover police informants infiltrating an extremist organisation. The backstory presented via a 'police' briefing, provided suspects' files, the basis for participants to devise their own cover stories. The *narrative telling then shifted from the author to that of the participant* who was responsible for improvising dialogue and creating narrative events in the context of a fake-actually-happening party.

The prefix 'expanded' embraces works that present a *challenge to a particular form of storytelling, fiction or nonfiction,* as articulated by the creators or the commentator. There is not a benchmark, the challenge is articulated by a particular work *in relation* to the form, content, structure or mode of participation. What is important here is the word *relation*. This definition of narrative does not rest on semantic/pragmatic or story/discourse dichotomies but is treated as a value in experience, which is particular and specifiable. I argue that,

(1) narrative is defined *as a value* attributed to a representation, in particular specifiable circumstances; (2) a representation becomes a narrative when the relations between subjects and objects are articulated in relation to the reader or participant.

This definition aims to capture the intuition that narratives express states of affairs between objects and agents, and importantly for the particular form of narrative, the relation that these affairs have to the reader-participant. A shopping list is not a narrative, if its author or

reader does not deem it to be so and if no 'theoretical' reader/participant has been considered in relation to the story contents. Therefore, *if I am to discover your shopping list, for example, find it interesting and consider its contents in relation to my act of reading it, for example my delight/disgust in the ingredients you list, my contemplation of trying out a new recipe and my declaring the shopping list a work of expanded narrative and my act of presenting that list to other readers as a narrative*, we *could say that it is both a narrative and an expanded narrative;* a challenge to the form of linear novels or perhaps even cookbooks or diaries. As a 'found object' it may lead my audience to question its ontological status, is it a genuine (*real*) 'found' shopping list, is it a *representation* of a found shopping list? This work may be judged as exhibiting a common feature of expanded narrative practices, *multi-stability*; the metaphor that expresses the potential to experientially *unsettle the ontological status of what* the audience/reader/participant takes *to be 'real', represented or imagined.*

## Lost in Paris

I see her. Running pausing for breath, the other side is not far now. Keep going. She is on the bridge, glancing down into the water. You are almost opposite. I look back and see a small packet lying on the ground. Cutting through the traffic and picking up the paper bag patterned with Eiffel Towers. He takes out a pen, hastily pushing it into his jacket pocket. Quickening my pace. Too late, there's no sign of yellow boots on the boulevard.

# Chapter 2

## Introducing the Jamesian Experiential Framework and Jamesian Relational Analysis

> "But the whole system of experiences as they are immediately given presents itself as a quasi-chaos through which one can pass out of an initial term in many directions and yet end in the same terminus, moving from next to next by a great many possible paths." (James ERE 1912: 63)

Since the publication of his first articles in the 1860's, the writings of psychologist, philosopher and educator William James have engaged thinkers on a range of topics; providing inspiration and provocation to disparate perspectives from behaviourism (Holt 1914), to ecological perception (Gibson 1986 [1979]), from classical pragmatism and analytical philosophy (Dewey 1934) (Rorty 1979, 1991), Putnam (1992 [1983]) to phenomenology, art history (Gombrich 2002 [1959]) and the philosophy of culture (McDermott 2007). Around the turn of the millennium, a cross-disciplinary emphasis upon subjective experience, in what may be referred to as the 'affective turn' (Gregg & Seigworth 2010), has brought further analyses to his work, within American literature (Levin 1999), aesthetics (Shusterman 2011), philosophy of mind (Gallagher & Zahavi 2008) (Massumi 2011) and psychology and neuroscience (Johnson 2007, 2014) (Block 2006, 2013).

The works of William James, I argue here, are a meditation on the notion of experience, an active grappling with what it means to be an experiencing being. At its most simplistic, James' concept of experience stands in for an individual's relations between thinking and acting in the world. Darwin's theory of evolution, British empiricism, theoretical and experimental psychology, grounded in neuro-physiology and metaphysics and a psychological approach to religious experience, can be seen as key sources of James' overarching philosophies of

pragmatism and radical empiricism, through which his concepts of experience permeate.

In this chapter, four *intersecting* tenets of James' thinking are schematised as thematics of experience: (1) action, habit, thinking-perceiving; (2) the intentional contents of thought; (3) truth and believing; (4) feeling, affect and sentiment.
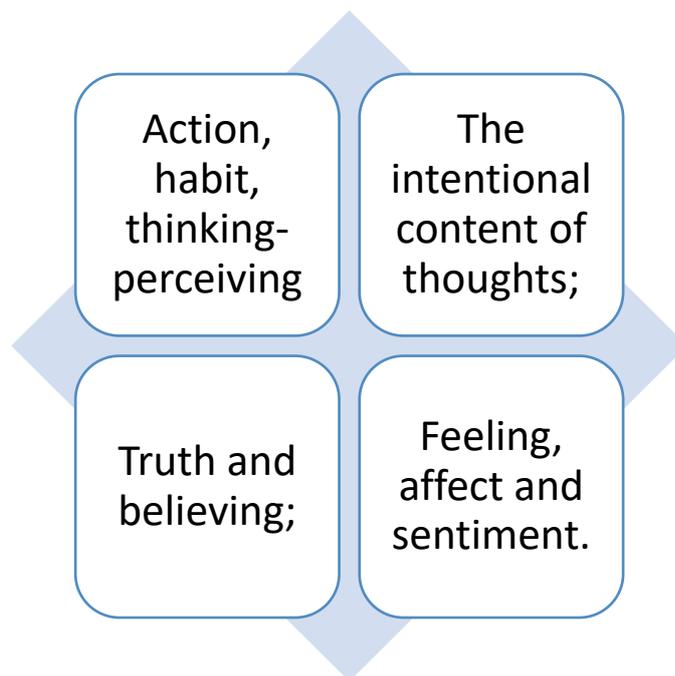


**Fig 1:** Diagram of four *intersecting* tenets of James' thinking schematised as thematics of experience.

They identify sets of relations between thoughts and things and the evolutionary, environmental, physiological, cognitive, emotional, temperamental and aesthetic conditions of operation that delineate the parameters of the Jamesian experiential framework. The Jamesian relational analysis, predicated upon these thematics, is introduced at the end of the chapter together with a taxonomy of relations. This analytical approach is practically applied to the development and interpretation of locative narratives, illustrated by the four case-

studies, examined in chapters 3-5. More broadly, the framework underpins the discussion of the *metaphor of multi-stability*[20]  and the multi-stable field of expanded narrative.

## Action, habit, thinking-perceiving;

Classical pragmatists, particularly William James and Charles Sanders Peirce, are acknowledged by Heft (2001:15), Johnson (2007), Johnson and Rohrer (2007) and others, as antecedents of contemporary extended, embodied and enactive theories of cognition. The animal functioning in relation to its surrounding environment. Darwin's Theory of Evolution and comparable evolutionary perspectives of the period,[21] were prevailing influences during James' education[22] at Harvard in the 1860's. James' (CER 1920 [1878]: 45) empiricist psychology and physiologically informed philosophy, embraces the view that a creature's response to perceptual stimuli is the result of its previous generations' adaptation to the environment. An individuals' behaviour can be accounted for by their adjustment to the current and future demands of its surrounding environment.

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[20] The metaphor of '*multi-stability*' has three aspects; perception as multi-stable (above and below conscious awareness); language as multi-stable; beliefs about what is real or true as multi-stable; resting on a feeling of rationality.

[21] James' friend and contemporary, Chauncey Wright, was an early defender and promoter of Darwin in America around this period (Misak 2013: 16).

[22] James' student and biographer, Ralph Barton Perry (1935: 209, 220) describes James' studies under Jefferies Wyman the Hersey Professor of Anatomy in the Harvard Medical School where Darwin was keenly discussed among his contemporaries and in the following year his systematic examination of the philosophical questions of evolution with Louis Agassiz, Professor of Geology, under whom he studied natural history.

The functioning of the body is for the production of action. Mental states, defined as "thoughts and feelings", (PP 1890a: 186) are "are *motor* in their consequences" (1932 [1892]: 5) leading to *some* bodily change, if not obvious movements, then changes in breathing or muscular contractions. Actions resulting from nervous system's responses to stimuli are: (1) *volitional* such as running for a train; (2) *semi-reflex*, automatic through habit, such as using the hands to save yourself when you fall; and (3) "*reflex acts*", such as, the eye watering to remove a foreign body or in acts of self-preservation. However, the boundary, James says, is vague, an animal's "outward teleology" (PP 1890a: 6-8) may appear to bring about an action because of its intention to do so but this cannot necessarily be determined by observation.

Drawing upon a number of contemporary scientists,[23] James extended the implications of 'habit' from physics to physiological and cognitive functions, including perception, memory and reasoning. He describes the physical actions and reactions of matter as, forming paths of discharge (PP 1890a: 6). When a psychical action is repeated energy will follow the same path or it will make a new course. At the level of "nerve centres" in the brain (1890a: 82), habit can be seen as the repeated paths taken by nerve-currents. A general condition of neural activity is the propensity of 'nerve-centres' to acquire new habits. The potential to form new paths of

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[23] Carlos Blanco (2014: 1) notes the that sources for James' theories of habit derive from Léon Dumont (PBC 1932 [1892]: 135) a French psychologist after the writings of following August Comte (1798–1857) Benjamin Carpenter (1813–1885), an English physician, physiologist and comparative neurologist, Scottish empirical philosopher and psychologist Alexander Bain (1818–1903), and English philosopher John Stuart Mill (1806–1873).

Bain's writings on habit, in *Emotions and the Will* (1876) and *Senses and the Intellect* (1879) influenced both Peirce and James (PP 1890a: 122-123). James (PP 1890b: 6, 12) cites Bain's view that sensations do not have knowledge of things and that as concurring with his own view. James (PP 1890a: 245) praises Bain's notion of the stream of thought in *Emotions and the Will* with reference to his own formulation of the stream of thought. Habit is also a central theme of C. S. Peirce's philosophy. James and Peirce shared an interest in the physical ramifications of habit. This idea is discussed further in Appendix 2.

discharge is captured in James' term "*plasticity"*, defined as a material weak enough to "yield

to influence" while retaining its material integrity.

> "...our first proposition the following: that the phenomena of habit in
> living beings are due to the plasticity of the organic materials of which
> their bodies are composed." (1932 [1892]: 135)

Equilibrium in the structure is achieved when a new set of habits has been established.

The neural function of habit can be understood when applied to acquiring a new skill. When

learning how to write, James argues, all the different aspects of the task require consideration;

holding the pencil in the correct position, placing the lead on the page, applying sufficient

pressure, etc. With repeated practice, movements become accurate and fatigue is diminished.

Once the task has been initiated by a 'cue' (a volition or sensation), the other steps in the

sequence are recalled as one, without recourse to focused attention upon each step. "Habits

depend on sensations not attended to." (PBC 1932 [1892]: 141). When sensations are not

directly attended to, a "*feeling* of activity" (PP1890a: 435) continues and alerts us, if for

example, a stitch is dropped when knitting or note misplayed.

> "The most complex habits...nothing but **concatenated**[24] discharges in
> the nerve-centres, due to the presence there of systems of reflex paths,
> so organized as to wake each other up successively—the impression
> produced by one muscular contraction serving as a stimulus to provoke
> the next, until a final impression inhibits the process and closes the
> chain." (PP 1890a: 108)

Habit encapsulates the role that "nerve-action" plays in the continuum of physiological

functioning and thought for James. More broadly, habits are physical-psychological-

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[24] James' use of the word *concatenated* to describe habit is later used extensively in his post 1900 radical empiricist
writings to describe or experience of transitions between conjunctive and disjunctive thoughts. (My use of bold here)

emotional-rational *tendencies.* These "habits of **translation**"[25] grow in experience and some new ways of conceiving patterns and sequences underdoing and substituting earlier ones. Habit, "*fixes* the copy" (PP 1890b: 619), allowing us to predict what experiences may come, and making alternative sequences seem unlikely. James rejects the "automation" argument, that the brain and body is purely automatic and determined. Consciousness is not just an automatic response but a director of action, "that consciousness is at all times primarily a selecting *agency"* (PP 1890a: 139), a point he had already made in his article, 'Remarks…' (1878).

From evolutionary perspective, James understands cognition as just one stage in the execution of a motor action. The "essential function" of cognition is "defining the direction which our activity, immediate or remote, shall take" (1912 RE [1897]: 84), allowing us to classify and systematize and among the parts of things and identify their relations[26]. For James (1910 [1897]: 142) this teleological position is not reductive; the purpose of actions may rudimentary, like finding shelter or esoteric, such as, searching for the meaning of our existence.

Space and time and a sense of self are cognitions' evolutionary evolved modes of perceiving, argues James (1910 [1997]: 268). Conceptual categories of, "Thing; The same or different; Kinds; Minds; Bodies; One Time; One Space; Subjects and attributes; Causal influences; The fancied; The real" (P 1907: 173), are so familiar that they pervade our perception, organizing

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[25] (PP 1890b: 619) (My bold to indicate this is a key point that is taken up in chapter two.)

[26] (James 1910 [1897]: 124) James makes reference in footnotes to Peirce's 'How to Make Our Thoughts Clear' (1887)

our innumerable sense impressions into fixed routines. Cognition provides detail congruous with our present needs. The meanings attributed to perceptions and conceptions are what they are *known-as* in our experiential awareness. They are constructed and context dependent, spatial, temporal, social, personal relations to ourselves. However, James argues (PP 1890b: 619), that while the brain is *plastic,* there are some uniform correspondences, fortuitous and casual co-existences of ideas and the external world, such as, fire will burn, water will wet, thunder may follow lightning, the possibility a dog will bite us.

Experience is the current situation happening for the individual (1932 [PBC 1892: 3) an event in which things happen at the same place and time. "The experiencable environment" (MT 1909:41-42fn) is the context in which cognitive processes, such as, emotions, perceptions, memories, volitions, etc., and their consequences occur. The body is at the centre of this situation happening, experiencing "*the feeling of activity"* (ERE 1912: 171-172)*,* of change, of things going on. "An inner event" (CER 1920 [1895]: 346) of attention brings objects before the mind.

Attentional processes discriminate from the pure chaotic experience, "…a teaming multiplicity of objects and relations…" (PP 1890a: 224) The focus of our attention is selective and only some of what we notice is 'labelled' as having certain qualities. Things being present at the same time does not mean we will perceive them together; our attention must unite them.

The first fact of consciousness is thoughts going on. Consciousness awareness [27] is not simple sensation, it is a stream of thought.[28] James (PP 1890a: 225) identifies five characteristics of thought: thoughts (1) "tend to be part of personal consciousness", in the sense that we differentiate one's own thoughts from that of others' which we cannot access; (2) thoughts are changing, they have duration but they do not recur identically; (3) thoughts usually *seem* to us to be continuous; (4) thoughts seem to "deal with objects" "independent" of thought; (5) thoughts attend to certain aspects of objects and exclude others. There is no consciousness that is separate from content, he develops in his later radical empiricist writings (ERE 1912: 9) (1977 [1905]: 187).

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[27] James uses the word 'consciousness' throughout his writings to refer to a variety of ideas, such as:

- In an early article 'On Some Omissions of Introspective Psychology' (James 1884: 1) (1884) James says that consciousness is "*esse to sentiri*" – to be sensed – immediate awareness of sensation. This is arguably a subversion of Berkeley's idealist expression: *esse percipi* – to be is to be perceived. For James, perception considers sensation in retrospect, in conscious acts that come after.
- "*Intelligent intelligence*" attention directed towards thinking (CER 1920 [1878]: 64).
- Automatic responses, reflex action (PP 1890a: 13-14)
- Primary and secondary self (PP 1890a: 209-210, 233)
- Fringe of relations (PP 1890a: 82) "Let us use the words psychic overtone, suffusion, or fringe, to designate the influence of a faint brain-process upon our thought, as it makes it aware of relations and objects but dimly perceived." (PP 1890a: 258)
- Subliminal consciousness (outside of conscious awareness) (VRE 1902: 483)
- "Below the level of immediate consciousness", (VRE 1902:125), "extra-marginal" (VRE 1902: 233).
- 'The knowner' - the *function* of thoughts is knowing (ERE 1912 [1904]: 3)
- "A thing known" (ERE 1912 [1904]: 10) thinking *about.*
- Consciousness as a separate *entity* (ERE 1912 [1904]: 17) or 'mind-stuff' is rejected (PP 1890a: 145).
- There is no consciousness that is separate from content James argues in his later radical empiricist writings (ERE 1912: 9) (1977 [1905]: 187).

[28] James in *Psychology, the Briefer Course* (1892), his abridged and revised version of *Principles,* he renames the stream of thought chapter as 'the stream of consciousness'. He later goes back to discussing a stream of thought in his 1904 essay 'Does Consciousness Exist?', where he rejects the term consciousness as being too loaded with connotations, preferring to talk of thoughts.

Personal identity, consciousness or self, James says (1907:90-91) after Locke, is just our memory of personal history, a name we give to current experiences that look back to old experiences and find a sense of "warmth", "'interest' aroused, 'attention' turned, 'eyes' employed" (1910 [1897]: 267). Feelings that continue to reoccur, that seem to be the "nucleus of me" and are associated with what was "mine". The pen held is associated with 'hand' feelings' and attention feelings (ERE 1912 [1905]: 128-129).

Is the feeling of time passing consistent with 'clock time'? There are instances of waking from a nap, or after fainting, anaesthesia or hypnosis, where there is no realisation that time has passed. When our attention is focused on a particular task our awareness of time passing may be similarly affected. Habitual noises may not be heard. *Our relations to things are different kinds of presence,* James argues.

> "We must distinguish the kinds of presence. In some manner our consciousness is present to everything with which it is in relation. I am cognitively present to Orion whenever I perceive that constellation, but I am not dynamically present there, I work no effects. To my brain, however, I am dynamically present, inasmuch as my thoughts and feelings seem to react upon the processes thereof." (PP 1890a: 214)

James (PP 1890a: 199-213) asks do we really have a continuous consciousness of things? If we experience misperception, confusion or daydreams our perception may not always seem continuous, however, these mental events are all part of the stream of thoughts and feelings. Change may be experienced as rapid or restful, "*Like a bird's life, it seems to be made of an alternation of flights and perchings.*" (PP 1890a: 243) Conscious awareness is not a static state as drink, drugs, illness, sleep and hypnotism can affect how we relate to things. While James rejects the idea of an unconscious 'mind stuff,' the notion that parts of thoughts that we are

not aware of form a subconscious that combine to make a higher consciousness,[29] he demonstrates that things can be outside or on the margins of our awareness,[30] primarily because our awareness is coupled with the attentional system.[31] Attention creates a context for our thoughts and our experience is what is attended to, if an object is not attended to it can be in the perceptual field but we have limited or no awareness of its presence.[32]

What sensation links sensations together? James rhetorically asks. His answer is, experienced *relations*, between thoughts. As we read a new text we know how to place emphases; we are habitually familiar with the grammatical structure. There are "*feelings of tendency*" (PP 1890a: 254), a thought stretches to fill the gap towards another, its relations are "constantly felt in the fringe" (PP 1890a: 259). A new thought that fits with the topic, adds to the current direct of our thinking. What is important for a train of thought, as with the running out of nerve currents, James says, is for it to reach its conclusion – its meaning. The context of a sentence takes the word in direction that a singular word may not, meaning is dynamic, it is felt in the fringe, as satisfying or unsuitable (PP 1890a: 265). Sense is dependent upon how thoughts function in experience, how they relate to current states of mind and the self, as system of memories and volitions.

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[29] James rejects this idea, offering ten proofs, and concluding there is no experimental evidence (PP 1890a: 145).

[30] Many examples of this idea: *Principles* 1890a: 82, 256, 258-259, 264-265, 271, 275. James' metaphor "chromatic fringes" of attention seems to draw upon Helmholtz's work on Optics, the at the threshold of vision (PP 1890a: 285).

[31] James gives an extensive review and critique of the most recent psychophysical research in attention, including that by Helmholtz and Wundt *Principles* Vol.1 chapter 11, (PP 1890a: 411-482) and *Psychology, the Briefer Course* (PBC 1892: 217-238)

[32] Attention and occluded vision is discussed further in chapter 4 of this text.

James' evolutionary informed psychology and philosophy emphasises 'accidental variation', Darwin's explanation for non-incremental changes to physiology, including the brain's structure. Without the potential for alternative possibilities, beyond that which the particular environmental parameters offer, no chance, non-incremental changes, or variations in direction could be made. This, James argues, would mean there could be no free will and consciousness could only be instrumental and deterministic. However, he argues, consciousness is not like this, it is *"intelligent intelligence"* (CER 1920 [1878]: 64), that not only serves purposes but also declares them. 'Accidental variation' entails the rejection of the 'mind', as a *correspondence* to an existent world, and reality as pre-existent truth that our perceptions-thoughts mirror, rather, reality and truth are types of relations in experience.

**The intentional content of thoughts**

Objects aren't literally in the head and the construction the animal's environment involves neuro-physiological processes that select and filter stimuli, beneath and within an individual's subjective awareness. The world is present in the individual's subjective awareness as thoughts that are 'intentionally' directed towards objects. The physical bases and functioning of intentionality is a matter of debate in contemporary cognitive science and philosophy of mind. James' account puts that intentionality is both caused by stimuli and created by the brain, above and below awareness.

The 'I', 'mine', 'self' or 'point of view' functions in *relation* to the content of thought. At its most simplistic, conscious awareness is just thought. Thoughts are 'intentionally' directed towards objects present in the environment, memories or imaginings (composite memories). What is

the structure of our experience? We can conceive of the structure of our experience by what it means to know something, the cognitive relation between the thought and its object. After James, we can say experience is the context connecting the knower and the known.

> "The experienceable environment, as the vehicle or medium connecting knower with known, and yielding the cognitive *relation*;" (MT 1909: 42-43 endnote)

How do our thoughts refer to things? James' (MT 1909 [1895]: 45) describes thoughts as "mentally pointing" towards objects. Pointing towards is a "commonplace intra-experiential relation" (1909b: 45). Our thought is directed towards its object, the pigeon in our field of vision. In a series of transitions between thoughts and physical movements we can arrive at the pigeon and verify our thought as an existent object in the world. Mental pointing entails the rejection of what the concept is not, pigeons are not blue-tits or robins.

However, the *concept* of pigeon, the word on the page here, is present in its absence, James' (MT 1909: 44) describes, after the German philosopher Franz Brentano (and Scholastic philosophy's), term '*intentional inexistence*'. While things before our eyes can be known perceptually or intuitively, most things are only known symbolically or representatively "*representative* knowledge" (MT 1909: 43), such as mathematical or philosophical ideas or that a geographically distant pigeon is currently sitting on the Eiffel Tower.

> The notion of *pointing*, through this medium, to the reality, as one condition of our being said to know it;" (MT 1909: 42-43 endnote)

If we believe there is an existent world but also that our experiences are constructed, rather than correspondences to a 'given' world, how can two people know the same thing? James'

approach to this question is to consider the structure of our experience as intentional

directedness:

Approaching the desk, my concept *terminates* in my perception of the pen, "Yes, I have the

pen!" I pass it to you. In the first instance the pen is directly experienced, it is just *that* (the

existent world). The (practically simultaneous) retrospective taking and classifying are

independent acts, known to each of us as our own perception of the pen. The

conceptualisation of the pen is a 'subsequent taking' (ERE 1912: 131). Conscious awareness is

not just being, *it is being reported on,*[33] says James.

> "Before I can think you to mean my world, you must affect my world;
> before I can think you to mean much of it, you must affect much of it;
> and before I can be sure you mean it as *I do*, you must affect it *just as I
> should* if I were in your place. Then I, your critic, will gladly believe that
> we are thinking, not only of the same reality, but that we are thinking it
> *alike*, and thinking of much of its extent." (MT 1909 [1887]: 23-24)

Whereas, sensory apprehension offers "knowledge *as acquaintance"* (MT 1909: 11),

perceptions require connections to be made between the sensation and memories of other

things, for knowledge to be *about*. Conceptual knowledge, abstract, logical analysis,

judgments, propositions function also offer "*knowledge about"* when they are put to use (MT

1909: 14-15). The of process of leading is what is important here, between the idea (the

thought) and what it refers to:

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[33] From a contemporary neuroscience perspective this is akin to what is termed a "tracking" account of perception, discussed in chapter 4

Thinking of the pen on the table in the next room does not mark the paper that I hold. Now, walking towards and picking up the pen, I press down and write. It *functions* for me. My perception of the pen "hangs" off my concept of the pen in "a concatenated or continuous structure" (MT 1909) of concrete transitions – a series of thoughts that *point towards* a terminus – a potential actually existent pen that functions. The chain of experiences or thoughts, are 'ambulatory' relations,[34] they occur *in*-action, in the space and time that separates my concept of the pen from its terminus in its physical counterpart. A perception can only terminate the chain of intermediaries from the concept because it is what was *meant* by the concept.

However, thoughts may never get beyond the virtual stage. *"To continue thinking unchallenged is, ninety-nine times out of a hundred, our practical substitute for knowing in the completed sense…"* (MT 1909: 115-116) Words can have mental or physical substitutes that lead us to *on* to other ideas or practical outcomes (MT 1909: 110). In the world of symbolic thought, we can intend, speak of and reach conclusions. Language allows us to know realities without recourse to resemblance to it, except in referring to a remote context (MT 1909 [1887]: 30). A condition of experience is an event happening. The "causal situation" (ERE 1912: 110) of relations is an important factor in how things function. As you drop my pen, I watch it roll along the floor and slip between the boards.

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[34] 'Ambulatory' relations discussed: James, W. (1909b) 'One More Word About Truth'. In *The Meaning of Truth.* New York & London: Longmans, Green and Co. p.138, and James, W. (1920) 'Remarks On Spencer's Definition of Mind as Correspondence' [1878] Collected Essays and Reviews New York & London: Longmans, Green and Co. p.60

**Believing and Truth**

The problem of reporting upon experience: the natural science viewpoint, says James (PP 1890a: 183-184), is that bodies occupy a real space in a real time and that the aim of the psychologist is to discover *how* brain states 'correspond'[35] with the outer world, where 'minds'[36] are understood to be *objects* in a world of objects. The psychologist compares mental states – a "feeling or thought" (PP 1890a: 185) – with external objects under certain conditions. It is believed that the total object of the psychologist, botanist or chemist, is comprised of the "thought studied" (the flower is red), the "thought's object" (the red flower) and "the psychologist's reality" (there is an external world), and that they are all realities. However, holding the belief that subjective and objective facts can be reported upon means that the psychologist is subject to particular fallacies, James argues (PP 1890a: 185).

Problems of translation arise from symbolic substitutions for phenomena and between languages and terms. Natural language can cause confusion where words can have subjective or objective designations; "elementary sensation", hot, bright, light, etc., can stand for both qualities and sensations. We may also fix a sensation to an object from which it arose, a horn sound (PP 1890a: 194), a rose scent, a soft jumper, etc. When a group of phenomena are designated by the particular term 'warm' we may assume that there is an existent entity, 'warmth', outside of its application to the phenomena. Entities separate from the identified phenomena can be overlooked, even they are an actual part of our experience, such as our relations to objects we report upon. James (PP 1890a: 196), argues thoughts are part of

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[35] James' inverted commas (PP 1890a: 183)

[36] James' inverted commas - "'Mind', in his mouth, is only a class name for minds." (PP 1890a: 183)

experience, they take place in the context of other thoughts that preceded them, they are not separate entities with automatic functions.

James' (PP 1890a: 196) psychological methodology is predicated on the key tenets of his philosophy: (1) that thoughts happen in succession; (2) thoughts can know objects in the world and these objects can also be known by others; (3) thoughts are "subjective data"; (4) the relations of thoughts to the brain and also to objects in world are the subject matter of psychology as a science; (5) the methods of introspection, experimentation, and comparison, do not provide reliable truths; (6) language used to report observations is selective, reductive and inflationary; (7) psychologists reports of subject's thoughts and their objects are not identical with the subject's thoughts, ('the psychologist's fallacy').

While categorical selectivity is a necessity, it does not capture lived experience. As such, psychophysics provides more and more data that gets us both closer and further away from lived experience, James argues. *"Introspective*[37] *Observation is what we have to rely on first and foremost and always"* (PP 1890a: 185)*,* through which we discover states of consciousness (thoughts and feelings). As psychological tool, James makes a claim for systematising introspection using empirical methods, however he does not say it becomes objective or provides objective knowledge.

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[37] When James' uses introspection to mean immediate '*feltness'* he refers to its phenomenal and naïve sense, not in the term's use as a psychological method, or as James says, "babies in cradles would be psychologists" (1890a: 189). This is the difference is between introspection as a feeling and introspection as psychological method where a body of introspections, that while fallible individually, they may become valid through a process of verification.

Reality is "how it appears" to us as 'brownness', 'hardness', 'flatness', etc. However, James (ERE 1912: 26-27) stresses that there is an existent reality that is independent of the thinker. Ontologically, reality is existent for James but our experience of reality *as appearance* also makes it a value attributed in experience, and so his critics accuse him of solipsism, that he rejects.[38] This distinction becomes a 'live' issue if we invest perceptual experience with the ability to 'reveal' knowledge. It also begs the question of what knowledge is and what its bases may be. James' rejects the idea that there is a pre-existing basis for knowledge.[39]

What allows us to say that say that the table is made of wood can be accounted for by our direct observation, it's painted grey; or by our use of instruments and calculations; it has carbon, hydrogen and oxygen atoms; or philosophical explanation; it maintains the space it occupies. Scientific methods or phenomenal reports are both *modes of inquiry* that take place *within* our experience, in which qualities can be verified or otherwise. The process of hypothesis forming, testing and verification is the basis of the scientific method but it is also a description of how we operate in the world, says James,[40] applied by us with varying degrees of rigor, depending on the context.

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[38] "It must assume realities; but it prejudges nothing as to their constitution, and the most diverse metaphysics can use it as their foundation. It certainly has no special affinity with solipsism." (1909b: 215)

[39] James' viewpoint is consistent with Linguistic pragmatists non-foundationist view in second half 20th and 21st century also, who argue that perceptual experience cannot be credited with revealing truths or 'truthful knowledge'. Discuss further in chapter 4 of this text.

[40] This idea is articulated throughout James' writings, some examples: (WTB 1910 [1897]: 24), (P 1907: 270, 273), (MT 1909: 64), (SPP 1911: 223)

**The pragmatic method**

The subtitle of James's book *Pragmatism* (1907) is "a new name for some old ways of thinking". Pragmatism, brings together certain long existent tendencies in philosophy, it "agrees with nominalism", a focus on the particular facts, "utilitarianism", a concern with the practical consequences, and with "positivism" that knowledge should not rest on verbal or "metaphysical abstractions" (P 1907: 53-54). James argues, (P 1907: 65), pragmatism is against rationalism (by which he refers to the belief that there are truths internal to propositions or mathematical formula), because he claims, that even these truths are found to be "plastic".

The '*pragmatic method*' can be applied as a technique for testing the truth of propositions and as a test for deciding metaphysical disputes. It poses the question, what are the practical consequences, or the practical benefits, of believing something (P 1907:45) to be true? "What difference would it practically make to anyone if this notion rather than that notion were true?" (P 1907:45) We should imagine the immediate and remote practical effects that would result – the sensations the object would produce and our reactions that would follow, if there are none, then the dispute is idle, James argues.

> "But if you follow the pragmatic method, you cannot look on any such word as closing your quest. You must bring out of each word its practical cash-value, set it at work within the stream of your experience. It appears less as a solution, then, than as a program for more work, and more particularly as an indication of the ways in which existing realities may be changed. *Theories thus become instruments, not answers to enigmas, in which we can rest.*" (1907: 53)

This is our "whole" conception of term's "positive significance", James says, "This is the principle of Pierce, the principle of pragmatism" (P 1907:46). Although James' 1898 address

to the Philosophical Union at Berkeley[41] (UC 1898: 287-310), attributed the "principle of pragmatism" to Charles Sanders Peirce's article, 'How to Make Our Ideas Clear' (1878: 286-302), James' version of pragmatism diverges from that of Peirce.

Peirce's (1887: 41) early account of pragmatism can be summarised[42] as: (1) testing the truth of propositions;[43] (2) prioritising the role of *rational thought*, defined as a thoughts' action in "the exercise of volition"; the action that terms imply is habit;[44] (3) users of a language understand one another because the meaning of words and the system they operate within functions by *general*[45] agreement within the societal context; (4) and the notion of truth means an idealized endpoint towards which evidence will eventually converge, as agreed by concerned parties at that time, although when truth in a matter is reached it may not be recognized.

James' (1998: 291) own emphasis is not upon thought as *active,* but upon thought as having *particular experiential consequences* for the individual, in the *particular* circumstances in which it occurs. In James' view, these experiential consequences are not solely rational. He demurs from the claim that there are final truths, rather beliefs are true in particular

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[41] 'Philosophical Conceptions and Practical Results' (1898) the lecture in which James gives the term pragmatism has its first public expression.

[42] Peirce expands his view on the differences between his own and James' pragmatism in *Baldwin's Philosophical Dictionary* (1902) and develops his version of pragmatism in three articles published in *The Monist* between 1905-6. Peirce and James' pragmatism is discussed further in Appendix 2.

[43] A point John Dewey (1923 [1916]: 302) has made.

[44] Peirce's use of habit is consistent with James' physiological and the psychological framing.

[45] Peirce in contrast to James is concerned with "generals" – not particulars, with testing the truth of propositions and not a theory of testing propositions or of truth itself, as John Dewey (1923 [1916]: 302) points out.

circumstances. He also diverges from Peirce's (and analytical pragmatists in the middle of the twentieth century[46]) differentiation of rational thoughts from sensations.

Throughout James writings, and evident in articles prior to his 1898 lecture,[47] there is a reciprocal resonance between the teleological framing of cognition, whose purpose is a future or potential action, and the function of truth. James' pragmatist *method* first asserts a realist stance, that there is a world and minds that can know it. Truths operate within a system that requires verification by "sense-percepts", either through direct contact or as memories. James (MT 1909: 210-211) points out that his pragmatism emphasises that the practical outcomes of concepts are further concepts, not just actions, "I now treat concepts as a co-ordinate realm" (MT 1909: 43 endnote). The consequences for an idea are another idea, that is *potentially* verifiable in experience.

What are the conditions of satisfaction – the extent to which new ideas fit with established truths? An idea is true if fits satisfactorily[48] with existing ideas, "is true for just so much, true in so far forth, true *instrumentally*" (P 1907:58). This is also the case for the scientific method,

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[46] This point discussed further in Appendix 2 of this text.

[47] 'Remarks on Spencer's Definition of Mind as Correspondence' (1878) and to a greater extent, 'The Function of Cognition' (1884). James details his early pragmatist ideas in *Meaning of Truth* (1909: 42-43 endnote)

[48] This is what shapes our human existence, according to the "humanistic conception", James says. The Humanist approach to truth of F. S. Schiller at Oxford and John Dewey's approach at Chicago (MT 1909: 64) closely reflected James' pragmatism.

> "…the generalized notion of the *workability* of the feeling or idea as equivalent to that *satisfactory adaptation* to the particular reality, which constitutes the truth of the idea. It is this more generalized notion, as covering all such specifications as pointing, fitting, operating or resembling, that distinguishes the developed view of Dewey, Schiller[48], and myself." (MT 1909: 42-43 endnote)

as a process of observing a variation from an established viewpoint that gradually becomes

recognized as superior and incorporated into exiting knowledge, until the new idea is

generalized as truth. While new perspectives may break with or add to older ideas, a

"minimum disturbance" to older ideas allows the new fact can be admitted as the true one,

while preserving to a large extent, existing ideas; complete rejection of the old would not

allow the new fact to accepted as true, James argues. "To a certain degree, therefore,

everything here is plastic." (P 1907:61)

Segueing with intentionality, from James' (1909, 210-211) pragmatist perspective,

perceptions terminate in existent objects and concepts can potentially lead, through a

sequence of thoughts and their motor consequences and arrive at the physical object. This

knowledge is verified, but *its truth value is limited and particular to the context of its use*.

Pragmatism as method, treats beliefs as hypotheses that can be subjected to the empirical

investigation (P 1907, 53). Testing and verification[49] takes place within a particular context

and its results are provisional truths, further hypotheses. Their meaning is a value attributed

within the stream of experience.

> "Truth *happens* to an idea. It *becomes* true, is *made* true by events. Its
> verity is in fact an event, a process: the process namely of its verifying
> itself, its veri-*fication.* Its validity is the process of its valid-*ation."*
> (1907: 201)

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[49] Gombrich (2002 [1959]: 24) sketches the lineage of the thesis of 'interpretation as hypothesis forming', from Kant to
its decedents in Popper.

## Knowing, believing and truth

Boundaries between phenomenal experience and rational argument are brought into question when relations between truth and belief are scrutinized in James' writing. In both domains, the classification of truth, what is subjective or objective is subject to: (1) the supposition that evidence for a belief is *sufficiently* substantiated; (2) the subjective belief in objectivity; (3) the relevance or "liveness" of a belief to those that hold it; (4) the role of our "passional nature" in deciding moral decisions and in analyses more generally; (5) an active "faith in fact" that helps to bring about its truth.

Even if we consider a belief to be rational and supported by evidence, sufficient depth of examination will reveal that those reasons rest largely upon suppositions and in many cases a belief will comprise of mixture of feelings and influences that are outside of rational thought.

To say that a claim possesses truth is to say that you *think* that the claim is true and that it *is* true is means that the evidence is objective, if this is not the case then the claim is not true. The conviction that the evidence is objective is itself a subjective claim that is evidenced by the opinions of those that object to the viewpoint (James 1910 [1897]: 16).

There are "*live*" and "*dead*" hypotheses; live a hypothesis "*appeals as* a real possibility for he who proposes it" (James 1910 [1897]: 2-3), a dead one does not. The live possibility has some credibility, even if the individual does not believe it. There are practical outcomes to belief; a belief means there is a *tendency* for us to act. If we are prepared to act "irrevocably" the hypothesis has a "maximum of liveness" (James 1910 [1897]: 3) for us. Therefore, James

argues, the *truth* of a belief is not an intrinsic property "…but relations to the individual thinker." (James 1910 [1897]: 2-3)

James (1910 [1897]: 11) asks, if our 'willing nature' (a mixture of volition, habit fear, hope, prejudice and passion, imitation and partisanship and the norms of our social context) only has a bearing on our beliefs when there is a reprehensible cause or moral dilemma, or whether our 'willing nature' should be recognized as generally playing a role in our decision making processes.

James takes the argument a step further by stating, "…*faith in a fact can help create the fact*" (1910 [1897]: 25). An individual who achieves their goals does so because prior to their realization they act towards them as live hypotheses, they behave as if they were possible and take risks for their beliefs in advance. "His faith acts on the powers above him as a claim, and creates its own verification"[50] (1910 [1897]:25 -26). The emotion at the basis of vetoing a decision of whether to believe is fear in being duped. To make the other choice and believe is the hope that you are not. Doubt expressed by inaction is a type of action (1910 [1897]: 55). James concludes we have freedom to believe or otherwise in cases where there is not sufficient evidence for either position, as in the case of religion or free will.

While the empirical method aims at the verification of hypotheses, for James it is never a completely objective process. The basis of our knowledge, prior and after experimentation is privileged, and not necessarily on rational or logical grounds, we want to believe that our

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[50] We can see Peirce making a similar argument but put in a logical form, where he labels this type of belief an *acritical inference* (Peirce 1905b: 483).

experiments and studies put us in a "better position towards it" [the truth] (1910 [1897]: 9-10). Objectivity and subjectivity themselves are potentials, not *a priori* truths.  After Brentano,[51] he states an object is thought of twice, as '*that*' and also in a new relation, a belief, as true or otherwise. James says he prefers to use the word belief rather than judgment. Beliefs help to constitute our reality (MT 1909: 246), but they are hypotheses with the potential to be verified in experience. Truth is a *belief* that *works* in particular circumstances. James' position is not a dismissal of the empirical method rather it is cautionary; warning of the error of certainty and urging that objective evidence is only *sufficient* for *present* purposes.

**Feeling, affections, sentiment**

*'Appreciations',* or 'affections' for James (1890b: 629) are a broad group of "elemental mental categories",

> "1. Elementary sorts of sensation, and feelings of personal activity;
> 2. Emotions; desires; instincts; ideas of worth; aesthetic ideas;
> 3. Ideas of time and space and number;
> 4. Ideas of difference and resemblance, and of their degrees.
> 5. Ideas of causal dependence among events; of end and means; of
> subject and attribute.
> 6. Judgments affirming, denying, doubting, supposing any of the above
> ideas.

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[51] James describes the relation between subject and object, after Brentano in his discussion on belief in an objects' existence.

> "*The way in which the ideas are combined is a part of the inner constitution of the thought's object or content.* That object is sometimes an articulated whole with relations between its parts, amongst which relations, that of predicate to subject may be one. But when we have got our object with its inner constitution thus defined in a proposition, then the question comes up regarding the object as a whole: 'Is it a real object? is this proposition a true proposition or not?' And in the answer *Yes* to *this* question lies that new psychic act which Brentano calls 'judgment', but which I prefer to call 'belief'." (PP 1890b: 286-287)

7. Judgments that the former judgments logically involve, exclude, or are indifferent to, each other…All these mental affections are ways of knowing objects." (1890b: 629)

For James (P 1907: 244) sensations are the first part of our reality. The second, is the relations between sensations and our thoughts *of* sensations. Some relations are accidental, such as the date and place, and others are "fixed and essential" because the meaning of the term means its relations to other things, such as, 'hot' or 'sharp' (P 1907: 244-245). Both facts and their relations are parts of immediate perception. The third part of reality, additional to perception, is the comparison of new facts with *"previous truths"* (P 1907: 245). The names that we give sensations, their categorization, our theories about their origin and cause, and their relations to other things, can affects their truth value in a particular situation.

Sensations, are of course, fallible. Erroneous presentations of the external world in our subjective awareness do not change the *facts* of movement or temperature, when the train appears to be moving when it is stationary, or it *feels* cold even if the thermometer says it is not (ERE 1912: 183). In our everyday experience, the differentiation between the imagined and the perceived can also be hard to determine. Thresholds between the imaginary and what we hold to exist beyond the surface of the body may be difficult to discern, if sounds for example, are faint, dim or confused by more dominant perceptual cues (PP 1890b: 70-72). Our hands reach towards the pond, we may feel the water before our fingertips meet its surface (PP 1890b: 70).

Our experience of illusions indicates that we susceptible to misperception and misjudgement and that *current* external stimuli are only part of what contributes to our on-going perception

of the environment.[52] Even as we glance around and the table disappears from view we have the *sense* that "constant 'things'" (1907: 185) exist. We have a *sense* of the consistency of their attributes too, by which we measure difference, when in this light, we say the table isn't its 'true' colour.

We differentiate between thoughts and things depending upon how they potentially function in experience. Ascribing the category subjective or objective is to describe how things may act on other things. For something to be sharp it might act physically, making a hole. In the mind 'sharp' does not affect its neighbours in the same way, it "suffuses" and "interpenetrates" (ERE 1912:140). To say a real knife is sharp is to say it has the potential to cut other real things, but it cannot act upon my imaginary cheese. An imaginary pen will only write on imaginary paper. Imaginings, 'non-perceptual experiences', can be first considered as subjective in that they are "not directly felt or seen" (ERE 1912 (1904): 16) but they are also objective experiences of present thought.[53] James puts that is there is a "parallelism" between the "presently felt and the remotely thought",[54] they are coordinate realms.

Emotions, in James'[55] view, come after the reflex response to external stimuli, however stimuli, reflex actions and emotions are all just parts of the total experience of a situation

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[52] James' view is reflected by current neuroscience research, King, A. J. (2006) 'Auditory neuroscience: activating the cortex without sound. *Current Biology.* June 6; 16 (11), R410-1.

[53] This echo's Peirce's claim in 'How to Make Our Ideas Clear' (Peirce 1923 [1878]: 5)

[54] James (ERE 1912: 18) says Hugo Münsterberg refers to imaginings as "parts of reality" in Münsterberg's *Grundziige der Psychologie,* vol. I, [Basics Elements of Psychology] (Münsterberg 1874: 48). James accounts, "I find this objectivity of non-perceptual experiences, this complete parallelism in point of reality between the presently felt and the remotely thought, so well set forth in a page of Münsterberg's *Grundziige."*

[55] In 'The Physical Basis Of Emotion' (CER 1920 [1894]: 346) James (CER 1920 [1894]: 348) explains that the psychical basis of emotion is not apperception (the apprehension of a feeling by another feeling). The view that emotion as a

happening (CER 1920 [1894]: 350). While emotions aren't independent objects with a fixed 'identity', they can be identified as having similar qualities that have sufficient "*functional resemblance*" for individuals to compare their own and others experiences (1920 [1894]: 354).

Love, anger and fear, are not merely affections of the mind but also of the body (ERE 1912, 142). We may feel the beauty of an object or attribute to it beauty. Affect is ambiguous in terms of its classifications. I feel the cold snow or I feel that the snow is cold. We give objects and our feelings attributes. Feelings ascribed to physical objects do not determine how they will act but they can "produce immediate bodily affects" (ERE 1912, 150), such as an increased heartbeat, quickened breathing, sweating, salivating, etc. The ambiguity of the classification demonstrates introspection's difficulty in designating objects as mental or material.

> "In the case of our affectional experiences we have no permanent steadfast purpose obliges us to be consistent, so we find it easy to let them float ambiguously, sometimes classing them with our feelings, sometimes with more physical realities, according to caprice or to the convenience of the moment…" (ERE 1912 [1905:140-141)

The line between thoughts and things is imprecise when our emotions are added in experience. Pleasure, pain, aesthetic or sentimental adjectives imbue objects with qualities that can become synonymous in our experience (ERE 1912: 34), (ERE 1912: 139). I am curious about the pen; the *curious* pen is a memento of our trip to Paris.

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secondary not the primary effect of a stimulus, coincides with that of his contemporary James Lange. James and Lange had independently published articles on this subject expressing similar views in 1884, however, James differs with Lange on a number of details that he outlines in this essay, including that Lange puts too much emphasis on the role of vascular constriction of the blood vessels in emotion. He disagrees with Lange that constriction of blood vessels in the face as being the "essential in feature of anger".

Subjectivity and objectivity denote how things are temporarily classified, depending upon how they act (ERE 1912: 141). Perceptions usually seem continuous in our experience, while concepts are discrete parts of language that have various "*meanings*", entering back into the stream of experience when they are put to use.

There is no dualism between mind and matter the only difference in experience is between "*relation* and *function*".[56] Our evidence for there being a real world is by observing, directly or with instruments and calculations, how our different categories of thought appear to 'act on their neighbours' (ERE 1912: 139). Perceptions and concepts can have a physical function and an inert function, their relations either lack "physical interference and interaction" (ERE 1912: 139-140) or they have "mutual impenetrability". Imaginary objects act on other imaginary objects while emotions *seem* to act upon objects, they "take me to their very brink".

> "Ether-waves and your anger, for example, are things in which my thoughts will never perceptually terminate, but my concepts of them lead me to their very brink, to the chromatic fringes and to the hurtful words and deeds which are their really next effects." (ERE 1912: 73)

**Reality feeling**

Appearances of a hallucinatory presence are often accompanied by "undifferentiated sense of reality", the notion that the reality we attribute to existent objects can also accompany ideas (VRE 1902: 58). Ideas can appear to have a "reality-feeling", despite being vague or "almost

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[56] James rejects Galileo, Descartes, Kant and others insistence that 'affects' are purely mental phenomena (ERE 1912: 147-148 footnotes), (ERE 1912:137)

unimaginable". James likens the often-attributed concreteness of religious experiences to this "reality effect", that objects can acquire through partaking in shared space and time.

James asks, what are the practical consequences for something to be *known-as* a religious or mystical experience? "In what facts does it result? What is its cash-value in terms of particular experience?" Of primary importance for the individual, argues James, is the role of context in the interpretation (VRE 1902: 22) and what is *believed* to be the "consequential fruits in life" (VRE 1902: 15) of their religious experience, rather than the physical antecedent causation.

James describes our experience of consciousness as having two parts: "primary consciousness", that which we are directly aware of; and "transmarginal or subliminal[57] consciousness", that which seems to us to be at the 'back of our mind', distant memories thoughts and perceptions on the periphery of our awareness, to which we attribute the source of our passions, volitions, hypotheses, imaginings and intuitions and "non-rational operations (VRE 1902: 483). Research in hypnotism provides a psychological context for demonstrating that subliminal consciousness is not diaphanous or esoteric[58] but a concrete experienceable phenomena (VRE 1902: 233). Memories, thoughts, feelings outside of the subject's direct awareness, become present during hypnosis as a "conscious fact". He concludes that religious

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[57] In *Principles* James references research by Myers (1886) on the "subliminal" consciousness and Alfred Binet's *Alterations of Personality* (1896)

[58] Where as James gives the subconscious a physiological basis in *Varieties* and in *Principles* (1890) where James describes psychology as "the study of finite minds", Owen Flanagan (1992: 43) points out James' discussion diverges from a strictly materialist account of consciousness in his lecture 'Human Immortality' (James 1899 [1898]: 12), where he permits the possibility that some part of consciousness may continue after death. James bases this claim on the grounds that the brain is "productive" of thoughts and also "transmissive" of thoughts, using the metaphor of the prism that can transmit colours via the light that passes through it to illustrate his point (James 1899 [1898]: 14-15). However, James' apparently contradictory views are not necessarily inconsistent with his pluralism, where the possibility of chance and genuine novelty are entertained.

experiences are a subliminal or a subconscious "continuation" of our everyday conscious experience. The notion of the 'unconscious' refers here to an object or concept that has been previously *experienced*, directly or indirectly, but which the individual only has a faint memory or a bare awareness, in the present situation.

## Rationality and feeling

Rational judgments rest on the *feeling* of certainty, because tracing causes leads to questions that cannot be known. The method of rationality is contemplation of phenomena over time. A thing can be explained by looking at its causes. To know a thing to be able to predict the consequences that will flow from it. James says, "custom" (we could use the word habit here) performs both these functions and can be seen as the source of rationality. But how do you *recognise* a rational conclusion? By "certain subjective marks", the same way we recognise anything else, he argues. Rational marks are,

> "A strong feeling of ease, peace, rest, is one of them. The transition[59]
> from a state of puzzle and perplexity to rational comprehension is full of
> lively relief and pleasure." (James 1910 [1897]: 63)

James (1910 [1897]: 76-77) argues that the empiricist school holds that the feeling of rationality and the "feeling of familiarity" are synonyms of rationality. Naturalising his view, he argues that physical reactions result when nerve-currents are discharged and when there is resistance; in our experience we feel no particular pleasure in breathing normally but distress if we find ourselves unable to breath; when performing an action easily no particular

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[59] Peirce articulates a similar view in 'How to Make Ideas Clear' – thought is one system of relations[59] whose sole function is to resolve doubt and to produce belief; "belief is a rule for action" (1878: 41).

thought seems to accompany it, whereas if the physical or mental task proves difficult we experience discomfort. Whenever modes of thinking cause us to experience a feeling of "fluency" they "produce a sentiment of rationality" (1910 [1897]: 62). Rationality can be defined as "…only unimpeded mental function…" (1910 [1897]: 75).

Rationality transforms the world of impressions into a world of conceptions. The purpose of rationality is for handling facts (1910 [1897]: 70). If a rational system of classification explains the world and its relations, our mind is at rest. But can that system be said to be rational, James (1910 [1897]: 70) asks. If the system leaves nothing out, indefinitely quenching unease, we may then call it rational. However, when we are presented with a solution our mind performs by searching out the "*other*" and continues point towards "the void beyond", probing for further explanations (1910 [1897]: 71). There is "no natural bridge" (1910 [1897]: 72) between an instance of factual data, and the void of possibilities.

**Radical empiricism**

James introduced radical empiricism as a "philosophical attitude" in the preface to *Will to Believe* (1897).

> "I say 'empiricism' because it is contented to regard its most assured
> conclusions concerning matters of fact as hypotheses liable to
> modification in the course of future experience; and I say 'radical'
> because it treats the doctrine of monism itself as an hypothesis, and,
> unlike so much of the halfway empiricism that is current under the
> name of positivism or agnosticism or scientific naturalism, it does not
> dogmatically affirm monism as something with which all experience has
> got to square" (WB 1910 [1897]: vii-viii)

Radical empiricism is a critique of scientific method and an argument for non-determinism. The empirical method is extended as an account of how individuals know things about the world, as the process of serial hypotheses forming that have the potential for verification; and in its radical ontological extension, questioning the foundational status of monism. Monism refers to a belief that there is one substance (either mind or matter) of which the world is made and as general a principle, it can refer to the idea that world is a unity from which parts are derived, sometimes conceived of as an Absolute, knowing being, energy or spirit and sometimes conceived of as substance or essence.

> "...for fluency's sake I myself spoke early in this article of a stuff of pure experience, I have now to say that there is no general stuff of which experience at large is made.  There are as many stuffs as there are 'natures' in the things experienced." (ERE 1912 [1904]: 26)

I argue that James's emphasis in his philosophy of radical empiricism is not the *specification* of neutral matter, but the possibility of the plurality of stuffs;[60] the rejection of correspondence theory of truth and the assertion of the constructed nature of reality in our experience, a view that James referred to as "radical pluralism" (ERE 1912: 91).[61]

> "The world is indubitably one if you look at it in one way, but as indubitably is it many, if you look at it in another. It is both one and many let us adopt a sort of pluralistic monism." (P 1907: 13)

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[60] In his assertion of pluralism is found in publication at least as early as *Will to Believe* (WB 1897: viii) This point is also noted by G. E. Myers (1986: 366) who thinks a better description is "neutral pluralist."

[61] 'Radical pluralism' is a more accurate label, a term James used himself:

> "These are the main features of a philosophy of pure experience… In my own mind such a philosophy harmonizes best with a radical pluralism, with novelty and indeterminism, moralism and theism, and with the 'humanism' lately sprung upon us by the Oxford and the Chicago schools. I cannot, however, be sure that all these doctrines are its necessary and indispensable allies." (ERE 1912: 91)

James' pluralism is important for the pragmatic method (that truths become true, verified in experience) and his doctrine of radical empiricism (in immediate experience things are just that, only potentially subject or object), because it accommodates the multiple ways that the world is for us. However, James is not a phenomenologist, his philosophy is not just an account of how things appear in experience, pragmatism provides a method for how appearances can be verified, a verification that has specifiable and limited sphere of application.

Choosing to believe in pluralism means that novelty, chance and free will are possible. There is the potential to overcome the disconnection between things in experience but this requires giving up the logic of identity. All theories are "mental modes of *adaption* to reality" (P 1907: 194), rather than final answers to the 'enigma', James says. By treating both empirical facts and monism as a hypothesis, James questions the consequence of soft and hard determinism.[62] Pluralism is his solution that leaves the door open for chance and possibility. Darwin's 'accidental variation', as James argued in *Remarks* and *Principles,* can be interpreted as evolutionary framed illustration of pluralism. To say that our wills are free, and to believe it to be so, results in "acting as if it were true".[63] In James' view we construct our reality. Ultimately to believe in free will is the choice of the individual.

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[62] Soft determinism refers to James' discussion in Chapter 5 'The Dilemma of Determinism' we can make be choices about our lives and therefore we are morally culpable but ultimately the world on a physical level is deterministic. James sees this view as fudge that does not have any intellectual rigor - you can't have it both ways, he argues (James 1910 [1897]: 166).

[63] James (1910 [1897]: 146) says, after the contemporary French philosopher Charles Renouvier, whom James later described as radical pluralist (SPP 1911:163-164).

Articles written from 1904 and 1905 expand James' initial radical empiricist postulate[64]. In the preface to *The Meaning of Truth* (1909), the remit of radical empiricism as a coherent "doctrine"[65].

> Radical empiricism consists first of a postulate, next of a statement of fact, and finally of a generalized conclusion. The postulate is that the only things that shall be debatable among philosophers shall be things definable in terms drawn from experience. [Things of an unexperienceable nature may exist *ad libitum*, but they form no part of the material for philosophic debate.][66] The statement of fact is that the relations between things, conjunctive as well as disjunctive, are just as much matters of direct particular experience, neither more so nor less so, than the things themselves. The generalized conclusion is that therefore the parts of experience hold together from next to next by relations that are themselves parts of experience. The directly apprehended universe needs, in short, no extraneous trans-empirical connective support, but possesses in its own right a concatenated or continuous structure." (1909b: xii-xiii)

Radical empiricism is James' "*Weltanschauung"* or worldview, he tells us in, 'A World of Pure Experience' (ERE 1912 [1904]: 40). He compares radical empiricism with its opposite, rationalism, that holds that reason and mathematics are the bases of knowledge and that experience is unreliable. British Empiricism, held that while experience is unreliable, verification by the scientific method can be the basis for knowledge, but not certainty. Their nominalism focused on the particular separate facts of experience but their method is not

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[64] These articles are later published posthumously as a collection *Essays of Radical Empiricism* (1912). Ralph Barton Perry, James' former student, biographer and the collection's editor, tells us (1912: preface) that James had already planned the structure of the book and made available the bound the collection the articles for students in the Harvard library. The final edition predominately matches that of James' plan plus some additional articles.

[65] James refers to radical empiricism as a philosophical attitude in *Will to Believe* (WB 1897: vii) and as doctrine in *Pragmatism* (P 1907: ix) and *The Meaning of Truth* (MT 1909: xii)*,* as Perry notes in his preface to *Essays in Radical Empiricism*, see note above.

[66] James' square brackets.

taken far enough in James' view. It disregards the connections between things, taking facts to be objective while how we *relate* to things is discounted as subjective.

## Relations

Experience, for James, is *being happening*. But being is not solely subjective. Being requires a context, an "experienceable environment…a vehicle or medium connecting knower with known and yielding the cognitive *relation*;" (James 1909, 41). The context in which its and other entities' qualities can be individuated and identifiable (James 1909, 18-19).

'Pure experience' is the name James gives for the happening of present experience; we perceive it retrospectively; we could call it a broad category of being cognizant.

> "The instant field of the present is at all times what I call the 'pure experience'. It is only virtually or potentially either object or subject as yet. For the time being, it is plain, unqualified actuality, or existence, a simple *that.*" (ERE 1912: 23)[67]

The instant field of the present is immediate, *there,* naïve reality, it is *valid* and we *act* upon it. "…but the immediate experience in its passing is always 'truth, 'practical truth, *something to act on*, at its own movement" (ERE 1912: 24). We believe our experience is really happening for us because of the practical consequences that follow. Our current experience enters into relations with other parts of our experience. These relations are not mysterious; perceptions and concepts are *distinguished* by how they function in relation to other things. They are

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[67] Also see (ERE 1912: 74) for this explanation of pure experience.

classified in our experience as subjective or objective, and potentially, they are verifiable in our practical experience.

Sensations (how our body feels to us), perceptions (experiences we attribute to our different sensory modalities) and concepts (thoughts we are having that do not seem to be independent of us) are *all* thoughts happening to the individual. James argues, it is useful to name our experience as it appears to us, as 'objective' perceptions and 'subjective' ideas, happening in our heads, but they are just labels for parts of experience. An object seen and the seeing of it are first one fact in the phenomena of immediate experience, it is retrospectively that they are considered as the thought and object (MT 1909: 48-49). A piece of experience in one context is a thought and in another, it is a thing known with 'objective' content. A piece of experience can be both 'thought of' and be 'a thing known', it can be both subjective and objective (ERE 1912 [1904]: 10), (James 1977 [1905]: 187). Our experience, is only potentially subjective or objective (ERE 1912 [1904]: 23).

Our experience of consciousness, James describes as the 'cognitive relation' (PP 1890a: 216), awareness that has cognitive and emotional relations of with things. When we wake up in the morning we are often aware there has been a temporal gap between when we were last awake. This disjunctive relation gives way when we recall going to sleep and now the same self has woken up. Conjunctive relations follow in our stream of thoughts from one moment to the next. When we try to imagine another's sense of self, or think *precisely* from their perspective; there is an 'experiential gap', a disjunctive relation. We can't quite bridge the expanse between you and me. Conjunctive and disjunctive relations "hang together" at their

edges in a "concatenated" (ERE 1912: 107) and a continuous structure of transitions in experience.

> "That one moment of it proliferates into the next by transitions which, whether conjunctive or disjunctive, continue the experiential tissue…Life is in the transitions as much as in the terms connected;" (ERE 1912: 87)

James argues that all we know of an object are its qualities. Qualities are ideas that are attributed to objects in the processes of discrimination and comparison (1910 [1897]: 267). When we *think of* things and their qualities they are separate and discrete. When the notion of substance is scrutinized all we find are a collection of qualities clinging together.[68] How do qualities adhere if there is no underlying substance? While different explanations have subsequently been offered for what unites 'qualities' or 'properties', James (SPP 1911:124) understands substance is a collective name for "specific and verifiable connections" that are extracted from the mass of on going experience.

The world of qualities is discontinuous. Things may **seem continuous** by *partaking*[69] of space, time and ego, *the seeing of* a pen, on the table at 12.00pm. James says no feeling happens without occupying space and time, no time happens without the self, somewhere (WB 1910 [1897]: 268). But these *a priori* conjunctions are only "vague laws" across general concepts

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[68] Substance has been framed variously (SPP 1911:124): The Substance theory of Aristotle; Descartes says that properties adhere because there is a substance; Locke says there is a substratum in which properties inhere but that categories, our boundaries between qualities are man-made and to some extent arbitrary; and Kant's notion of a transcendent reality outside of experience, that James rejects. James discusses the British empiricists questioning the notion of substance (P 1907: 88-90), (SPP 1911: 116, 121).

[69] The matrix of experience: ego (that he defines as the memory of personal history), space and time are the only partial continuities between parts of the world (1910 [1897]: 268). *"partake* – in Plato's phrase" (James 1910 [1897]: 268)

and leave the details of innumerable possibilities unspecified. It is the fact of something

happening, the *particular* real experience of picking up the pen from the table that decides

between alternatives (1910 [1897]: 269) that its yellow-brownish ink flows smoothly over

the page...

> "Are there real logically indeterminate possibilities which forbid there
> being any equivalent for the happening of it all but the happening itself?
> To such a way of thinking the notion of 'partaking' has a deep and real
> significance." (James 1910 [1897]: 270)

To ascribe the function of knowing to a quality or content of a feeling, a thought or an idea, we

need to *believe* that it exists outside, as well as inside the individual subjective experience. It

may, however, still be a dream, a fiction or a misjudgement. James' philosophy is predicated

on a belief in an existent concrete world beyond the surface of the skin, while the only

warrant we have for reality is the faith of the inquirer (MT 1909: 6-7). So the bottom line for

James, is *choosing* to believe in an existent world outside of our heads, and we generally make

this choice because it is practically useful for us to do so. "The critic, reader, or epistemologist,

with his own belief, as warrant for this reality's existence;" (MT 1909: 42-43 endnote). The

concept of reality does not stand in for a separate entity, it is a quality that we attribute to

thoughts (WB1910 [1897]: 267).

James' radical empiricist approach to interpretation and meaning is **to give an account of the

*relations* between things and between things and us**: everything that is "experienceable"

directly or indirectly, using any manner of instruments or calculations and including esoteric

phenomena reported in experience, but excluding the transcendental[70] which is neither

potentially or actually verifiable.

There is hardly a linguistic utterance that does not express the relation between objects and

our thought that we understand as objective relations with the world or subjective relations

to ourselves (PP 1890a: 245). Meaning is not a static correspondence to the world, but a

context specific relation in experience. Relations between terms contribute to how they

function in a proposition and how they may be interpreted. Relations are part of the content

of consciousness "part of the 'object' just as much as sensations are" (PP 1890b: 27). Relations

aren't mutually exclusive (ERE 1912: 110); paper can be on and off the table. Conjunctive

relations express "degrees of intimacy" – to be 'in' 'with', 'next to', of continuity of space,

distance and time (ERE 1912 [1904]: 44). Disjunctive relations[71], for James, are those that do

not seem to be continuous with thoughts that have preceded them.

In the relations between terms and the parts of the world to which they refer, the use of

concepts is an act of translation that leaves out the movement of change. Concepts are

"discontinuous and fixed" (MT 1909: 253). A concept leaves out what it is not, whereas in the

perceived flux of life, experiences co-penetrate each so it is not easy to know what is included

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[70] What James is referring to here is postulated transcendental experiences such that which Kant asserts.

[71] For James, the lack of acknowledgement of disjunctive relations is problematic not just in terms of epistemology and ontology but also for grammatical logic indicated by the Law of Excluded Middle and the Logic of Identity. He offers alternative possibilities to the formulation where the particular relations of terms do not fix their identities and leave the potential for plurality of meanings. It can be argued James' (ERE 1912 [1884]: 266-276) argument hints towards an idea of modal logic, or towards 'deductive logic', in Charles Sanders Peirce's terms (1873 [1870]).

and what is not.[72] Discontinuity is not removed from the universe by systemizing and classifying its qualities "...we have only made it finer grained."

The meanings attributed to perceptions and conceptions are what they are *known-as*. They are constructed and context dependent, spatial, temporal, social, personal *relations* to ourselves. While an idea or perception is not contradicted, it is *potentially or virtually* true (1909, 115-11). Our beliefs about how the world *is* may seem to have a rational basis, perhaps supported by evidence, but they are first a hypothesis, our faith or hope in which may be driven by feelings or sentiment (1897, 62). That which is taken as true is a value ascribed in experience The truth of an idea is determined by conceptual or physical *actions* (1907, 45), that follow from it, leading to further thoughts or physical activities. Beliefs *become* true when they are *verified* (1907, 206) as such. Truth's relation in experience is as a value, that is contingent on the *particular* context of use. Aesthetic value and sentiment play a role in what we perceive and conceive, fitting with our expectations; *feeling* right. It fits satisfactorily with our existing ideas, extending them in an acceptable way. Radical empiricism treats both relations and terms as real parts of experience, but not in a rationalist sense, James (ERE 1912: 44) cautions us, they have no special truth-value or exceptional quality. Relations are not concerned with the substance of an object but *how they function in our experience*.

> "...the knower is not simply a mirror floating with no foot-hold anywhere, and passively reflecting an order that he comes upon and finds simply existing. The knower is an actor, and co-efficient of the truth on one side, whilst on the other he registers the truth which he helps to create." (James 1920 [1878]: 67)

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[72] James notes however, that the classical object-predicate structure of logic is now being challenged and that concepts in physics are now being considered as ways to handle reality rather than uncovering existent truth (SPP 1911: 90 footnotes).

## Conclusion: The Jamesian experiential framework and a relational approach to expanded narrative

In this chapter, the multiple aspects of James' framing of experience from across his writings express a view of the human animal as teleological, whose body-brain are the product of its ancestors' responses to the environment overtime. A body-brain that is also subject to accidental variation, nonsequential changes, that James interprets as the potential for chance and novelty, whose connotations are pluralism, non-determinism and free will. The body-brain-awareness is also responding to its current environment adjusting to the demands of the situation, above and below the level of awareness; experience is constructed. The influence of attention and higher cognitive processes on perceptual functioning below the level of awareness is observable under circumstances such as hypnotism. The constructed nature of perception and thinking, more generally means that we cannot have complete certainty of our existence, however James chooses realism; to believe in a concrete world that exists beyond the skin, because it fits with what we intuitively experience. Our awareness about the world happens forward and also in retrospect. Perception-conception rides on a wave-crest, forming hypotheses, making predictions about the world, that present in perceptual awareness; while much of our experience will not be verified as true or otherwise. We reach to touch the water; we are already feeling it and linguistically *knowing it* before our skin makes contact with the surface.

In our naming and classifying of things our thoughts intentionally point towards an object, the content of our thoughts, in relation to our learnt language use, our memories of past experiences and our current context. The line between rational, evidence based, choices and aesthetics can become less distinct when their bases are taken to their limit points, that

arguably rests upon a feeling that the analysis is correct. Thoughts function in relation to things, that we identify by their qualities. That is all we can know, whether determined by mathematical modelling, scientific instruments or our own observations. We ascribe values to our thoughts. *We can describe the different types of relations between thoughts and things.* While our naming and classifying cannot capture fully the lived experience, they can function by guiding us to towards achieving our aims within particular circumstances.

Here, I outline the Jamesian relational approach to an expanded narratology that situates the individual reader-participant moving with the narrative in the environment. The thematics of experience set the frame for examining the experience of expanded narrative practices and specifically locative narrative. The metaphor of multi-stability describes the inter-relations between three aspects of experience:



**Thematics of Experience**
- Action, habit, thinking-perceiving;
- The intentional contents of thought;
- Truth and believing;
- Feeling, affect and sentiment.

**Multi-stability**
- Perception as multi-stable (above and below conscious awareness);
- Language as multi-stable;
- Beliefs about what is real or true as multi-stable; resting on a feeling of rationality.

**Language as Multi-stable**
- The multi-stability of language supervenes on the normative functioning of language;
- Normative functioning and the multi-stability of language operate in relation to particular context;
- Multi-stability of language is a play with possibilities.

**Fig 2:** Diagram of the four thematics of experience on which supervenes the metaphor of multi-stability, on which supervenes language as multi-stable

Language *as* multi-stable, is the aspect of metaphor of multi-stability that refers to the production of linguistic uncertainty, on the grounds that:

1) The multi-stability of language supervenes on the normative functioning of language;

2) Normative functioning and the multi-stability of language operate in relation to particular context;

3) Multi-stability of language is a play with possibilities.

In the last chapter I defined a relational definition of narrative as (1) *as a value* attributed to a representation, in particular specifiable circumstances; (2) a representation becomes a narrative when the relations between subjects and objects are articulated in relation to the reader. *A narrative is an experience happening for the reader-participant in which a representation (an image/text/sound/and/or thought) of an experience happening can be described as specifiable relations between a subject and its objects.* This experiential and relational approach to narrative interpretation focuses upon *the relations between (1) the participant, their responses and the actions that result from partaking in the narrative in the particular context or 'experienceable environment'; (2) modes of engagement with the narrative form or individual work, and (3) the interpreter-critic, the narrative and the contexts of analyses* (secondary analyses).

An analogy towards the Jamesian relational analysis put forward here: We can imagine we are taking a photograph of our friend in a winter landscape. The components are, the field, tree, sun and fence. By changing their relative positions to the photographer and therefore to one another, very different images are created. The relational approach to expanded narrative is concerned with describing the components of experience and their relative position to each

other, their contexts and the interpretative perspectives employed, *values in experience*; the analysis examines relationships between these elements. In terms of narrative, it is concerned with interdependence of semantic sense and pragmatic context and use.

## A relational taxonomy for describing experience

All intentional relations involve our self (even when written in the third person) and they are happening within a context, an 'experienceable environment', at some time in some place – the matrix of 'I', time and space, as James argues (1910 [1897]: 264). Relations are expressed in natural language as thought, writing, speech, symbolic and metalanguages.

Relations to objects

    a)  Relations to perceptual objects

    b)  Relations to imaginary objects

    c)  Relations to hallucinations

    d)  Relations to dreams

    e)  Relations to language

    f)  Relations to time

    g)  Relations to space

Relations between objects in time and space

    a)  Action

    b)  Time

    c)  Proximity

d) Distance

e) Position

f) Direction

g) Movement

h) Velocity

Relations to ourselves *"intelligent intelligence"* (James 1920 [1878]: 64),

a) Relations to conscious awareness: as vivid, as vague, as on the fringes or threshold.

b) Relations to the experiences of perception and misperception

c) Relations to the experience of imagining

d) Relations to action and volition

e) Relations to the experience of attention

Relations to feelings and sensations

a) Relations to bodily sensations

b) Relations to emotions

c) Relations to feelings

d) Relations to will, volition

e) Relations to intuitions

Relations to values

a) Relations of presence (to different worlds[73])

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[73] James characterizes individuals' categories of experience as "worlds". These can be described as classes whose members share a logic of acting and influencing one another – the logic physics, of ethics, or of fantasy and fiction. Each world is real "while it is attended to" – reality is that which we take to be external to us, yet it is mutable.

b) Relations to interest

c) Relations to reality

d) Relations to hypotheses

e) Relations to knowledge

f) Relations to skill

g) Relations to belief

h) Relations to truth

i) Relations to beauty (taste as a weaker form)

j) Relations to rationality

k) Relations to fiction

l) Relations to ethics

In the chapters that follow, this Jamesian relational taxonomy, informed by the four parameters of experiential framework, is applied in the analysis of four locative narrative case studies, together with participants' reports of experience.

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There are different worlds with different modes of existence, James tells us listing seven categories, "(1) physical things "as we intuitively apprehend them", heat, colour, sound; (2) the "scientific world" of physical things; (3) "ideal world of relations and abstract truths", mathematics, logical propositions, ethics, aesthetics; (4) "The world of idols of the tribe, illusions or prejudices common to the race"; (5) supernatural worlds of religions and mythology, of fiction "Whilst absorbed in the novel, we turn our backs on all other worlds, and, for the time, the Ivanhoe-world remains our absolute reality. When we wake from the spell, however, we find a still more real world, which reduces Ivanhoe, and all things connected with him, to the fictive status, and relegates them to one of the sub-universes grouped under No. 5." (P291-292 footnotes); (6) "Worlds of individual opinion"; (7) "The worlds of sheer madness and vagary, also indefinitely numerous." (James 1890b: 291-292)

> *"Every object we think of gets at last referred to one world or another of this or of some similar list."* (James 1890b: 293)

# Chapter 3

## Locative Narrative, a Genera of Expanded Narrative: antecedent practices and themes of locative narrative

> "…one can make exact experiments upon uniform diagrams; and when one does so, one must keep a bright lookout for unintended and unexpected changes thereby brought about in the relations of different significant parts of the diagram to one another. Such operations upon diagrams, whether external or imaginary, take the place of the experiments upon real things that one performs in chemical and physical research." (Peirce 1906: 493) [74]

In this chapter I diagram arts and cultural practices that I argue are antecedent and coexistent with works of locative narrative. Drawing on a selection of locative narratives from the last two decades, I discuss how techniques and approaches of these practices have been adapted and feed into the complexity of the locative narrative form. I introduce four locative narrative case studies, developed within this research, that specifically engage with the metaphor of multi-stability. Informed by the Jamesian experiential framework, a relational analysis of the locative narrative is made of *LociOscope, The Letters* (2014).

### Locative narrative's formal and experiential narrative complexity

I argue that locative narrative's 'challenge' to non spatially situated narrative can be characterized as its *formal and experiential narrative complexity*. Locative narrative is

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[74] Peirce, C. S. 'Prolegomena to an Apology for Pragmaticism'. *The Monist*. Vol. 16, No. 4 (October, 1906), pp. 492-546 Published by: Hegeler InstituteStable URL: http://www.jstor.org/stable/27899680Accessed: 14-03-2015 18:26 UTC

considered complex on the grounds that (1) the authorial intention is to situate-integrate the story world within an existent location; (2) the structure of the narrative is linked with the mode of interaction; (3) media is experienced in relation to surroundings; (4) the reader-audience becomes a participant whose actions take place within the fictional world and the existent environment; (5) the spatial-temporal complexity of partaking. I argue that while works of locative narrative are informed by practices across cultural domains, their *formal and experiential narrative* complexity is descriptive of the practice as an expanded narrative.

**Fig. 2:** Table of Antecedent and Coexistent Domains of Locative Narrative.

| **Antecedent and Coexistent Domains of Locative Narrative**<br>(These areas are clearly not mutually exclusive or definitional, the purpose of categorisation is to indicate the spheres of interest that intersect with the form of locative narrative.) | |
|---|---|
| Navigation and Geography | |
| *Navigation technologies* | From observation of the environment, to timekeeping, speed of travel, mapping, compasses, satellites and mobile computing devices. |
| *Mobilities, ecology and urban geography* | The social science field of mobilities is concerned with the interrelations between people, objects and data and their movement geographically and spatially. Soundwalks, sound pollution. Architecture, urban planning and design, smart cities, internet of things, street games. |
| Games and simulations | |
| *Simulators and virtual environments* | Environmental acclimatisation, occupational, vehicle and gaming simulators, VR and navigable screen-based representations of spaces, 3D cinema, wearables. |
| *Games* | Collective and individual play, board games, computer, video and online games, treasure hunts, geocaching, table-top roleplaying, larps and pervasive games (see table 1. *Expanded Narrative Practices*). |
| History/education | |
| *Education and heritage interpretation* | 'Serious games' (used in education, or focus on learning), museum guides and tour leaders, printed, audio and digital guides, historical re-enactment and living history museums. |
| Arts | |
| *Literature* | Print novels, hypertext, text adventure, interactive fiction, online communally authored stories and fictional worlds, graphic digital novels, twitter fiction, transmedia stories, A.I. SGAs (see table 1. *Expanded Narrative Practices,* for more comprehensive list). |
| *Fine art narrative and textual practices* | The "*dérive*" (Debord 1958) psychogeography, *Arte povera,* soundwalks, installation, live-art, land art, site-specific art, concrete poetry, image-text art, mail art, performance art. |

| | |
|---|---|
| *Theatre and performance* | Participatory theatre, improvisation, promenade, *Forum* and *Invisible* theatre, flash mobs, street performance. |
| Psychological, spiritual | |
| *Guided imaginary experiences* | Stage hypnotism, hypnotherapy, shamanic journeying, meditation, thought experiments, thought provocations and 'mind games'[75]. |

## 1) the authorial intention is to situate-integrate the story world within an existent location;

Baudelaire's nineteenth century figure of the flâneur, the gentleman of leisure, wanders the streets of Paris, observing life as an aesthetic activity. In his *Arcades Project,* Walter Benjamin, describes the city as a theatrical arena for Baudelaire's flâneur, that is, "...now a landscape, now a room" (2002 [1935]: 10).

> "To the flâneur, his city is-even if, like Baudelaire, he happened to be born there-no longer native ground. It represents for him a theatrical display, an arena." (Benjamin (2002 [1927-40, J66a,6] :347)

In 1955 Guy Debord's writings on "psychogeography" investigate the individual's relations between the geographic environment and their behaviour and emotions. His methodology was to turn life into a game. Debord, like Benjamin (2002 [1935]: 12), gives a Marxist critique of Haussmann's redesign of Paris (and of the status quo). Debord's solution to the 'militarized' open spaces of Paris, is a "renovated cartography", created with strategies such as, superimposing two maps to remove the walker's habitual influences. A year later, and again in

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[75] 'Mind Games' a practice of (non-drug induced) guided imaginary experiences developed by Robert Masters and Jean Houston (1972) based on research at The Foundation for Mind Research, initially concerned with LSD and psychedelic experiences.

1958 under the banner of The Situationist International, the art movement founded by

Debord, he wrote of the *dérive*,

> "One of the basic situationist practices is the *dérive,* a technique of rapid
> passage through varied ambiences. Dérives involve playful-constructive
> behavior and awareness of psychogeographical effects, and are thus
> quite different from the classic notions of journey or stroll." (Debord
> 1958)

Taken alone or in groups, for hour or days the *dérive* through a city, or even within an

apartment building, changes the relation of the individual to their environment to urbanism

and the borders imposed by architecture and the state. Debord has no specific *authorial*

intention to create a narrative framework for wandering or to situate a story within the

location, although walkers may recount their experiences as a narrative telling.


Psychogeography and the *dérive* continue to offer an inspirational touch point for coexistent

practices of locative narrative; novelists Ian Sinclair and James Attlee and urban geographers

and artist walkworks, by those such as 'Mythogeographer' Phil Smith. In Misha Myers' locative

narrative *Way from Home* (2004), asylum seekers and refugees made maps of places they

regard as home and used them to them to navigate around Plymouth, UK, recording their

memories and responses to their new environment. Audience-participants then walk these

journeys around the city, guided by the audio recordings and accompanied by a digital map.

The work questions notions of territory, place and the implications of global events for

individuals. While this work is a psychogeographical investigation of an individual's

emotional and behavioural relations to their environment, it is not an invitation to wonder

freely, in the sense of the implied by the *dérive*. Creators of a locative narratives, may offer a

planned linear route, as in *Way from Home,* or present the participant with more freedom to

roam, however a locative narrative's structure is pre-authored, even if its story content is not. In Blast Theory's *Rider Spoke* (2007-) cyclists riding at night are asked find somewhere to 'hide' their audio response to a question, which they record via a mobile computer mounted on the handle bars. As they journey through the city, alerts are triggered of nearby 'hiding places' where other participants' recordings can be listened to. The framework in which these these 'mini' stories fit is conceived by the authors, but any coherence or overarching narrative is that of the participants' personal journey and their individual relations to the nights' events.

The extent to which a locative narrative's story is situated-integrated within a place, I describe as occupying a spectrum between, (1) the temporal-spatial coincidence of participant and place, as in the case of *Rider Spoke,* to that of (2) an author and/or collaborators response to a location, such as, *Way from Home,* to (3) the authored 'integration' of the fictional and existent world in which features of the environment are given a fictional significance within the story. An example here be would be Janet Cardiff's *Missing Voice (Case Study B)* (1999), in which the voice of Cardiff, as the female protagonist, guides the participant via the recording of her 'case notes' around Whitechapel, London, that is refigured as story world in Cardiff's detective drama. Restaurants, pubs and tube station feature as locations within the story. Non-diegetic music, evocative of Raymond Chandler movies, combines with ambient sounds recorded in the location, infusing the existent world with the events and atmosphere of the narrative.

(1) Function of location: temporal-spatial coincidence of participant and place

In *Rider Spoke* (Blast Theory 2007) participants respond to questions in a particular location but the location is primarily a temporal-spatial coincidence of participant and place. This is

even more so the case for Naomi Alderman and Six to Start's *Zombies Run!* (2012- 2017), the literary fitness app that sets joggers' missions that can be run anywhere in the world. The environment is reframed by the world of the story, but that environment could be anywhere.

(2) Function of location: an author and/or collaborators response to a location

Locative narratives in the middle of the spectrum include oral histories situated in the places that they are about. Works here include the [Murmur] project by Micallef, Roussel, and Sawhney (2002), first developed for Toronto, followed by versions in cities internationally. Illustrations of green ears with a phone number attached to trees or other objects encouraged passers-by to call, hear a personal story or oral history pertaining to the particular location, and leave own recording. *Block of Time: O'Farrell Street* (2010) by Krissy Clarke, set in the Tenderloin district of San Francisco also used telephone voice-box numbers. Placed on the floor every few feet along the street, simply signposted by a balloon. Listening to the tales, sometimes shocking, others sad, amusing and personal revealed how their lives and the geography of the street had changed over a hundred years. *Streetstories* a mobile app by Francesca Panetta and the Guardian (2012), set in the Kings Cross area of London, uses GPS to trigger personal stories and historical information on headphones as the participant walks. National Archive's situated oral histories of wartime secret service operatives, *Spooks, Spies and Videotape - London's Secret War* (2016) triggers video interviews with veterans and archive materials on smartphones in once secret locations.

Audio guides, handheld playback devices that inform the visitor about collections in their own language are ubiquitous in larger museums across the world. Numbers next to exhibits are entered to play relevant content. Tate Modern's Multimedia Tour (2002-3) is an early

example of a PDA that used wireless communication to a central server to deliver audio interpretation material, music, on-screen games and recorded the visitors' feelings in response to exhibits and sent materials to personal email addresses. Locative narratives in the form of mobile apps, have been developed for use inside public buildings and museums, in experimental arts and research projects, such as the REACT hub project, *The Memory of Theatre* (2013), a smart phone app prototype set inside Bristol Old Vic theatre. Combining oral histories of theatrical productions, together with dramatized archive materials, that were heard on headphones, triggered by visitor's positions using Wi-Fi triangulation.

Antecedent and co-existent practices of locative narrative are re-enactments and 'living history' that expresses a desire for, what I term, 'experiential authenticity'. The restaging of historical events has been performed by groups and societies in Britain since the 17th century (Chronis 2005). Questions concerning, what constitutes historical accuracy, notions of authenticity and who writes history, were addressed in artist Jeremy Deller's *The Battle of Orgreave* (2002), a re-enactment, or "social history re-lived" (Morriss 2002) of clashes between the police and striking miners on 18 June 1984 (Correia 2006). The Black Country Living Museum is the recreation of a 1930's village, complete with industry, transport and Edwardian high street shops. Visitors in mufti mingle with the costumed employees and volunteers. However, while the sites of these museums maybe geographically specific, *as places,* they are arguably closer to installation art or TV set (for which purpose they are often hired).

(3) Function of location: the authored 'integration' of the fictional and existent world

The locative narrative *Ship Aground* (2010) by Interactive Places, is an audio story triggered by GPS. Set on the windy cliff on the North Devon coast, the site little changed since the 18th century where wrecking took place, the luring of ships onto rocks in order to steal their cargo. The evocative historical drama explores the moral dilemmas faced by protagonist, a young girl. Cast in the role of her friend, you find yourself (aurally) amid a hurrying procession of villagers making their way towards the sea. The high production quality binaural sound surrounds you with moving characters. The ground seems to vibrate with the approach of the King's horses'. Tension mounts, a voice shouts and you feel yourself swinging round and jumping out of the way. Recorded sound effects blend with location's ambient sounds, the baa-ing of sheep and the call of seagulls, bringing the story world into the surrounding environment. At this end of spectrum of site-specificity (3), locative narratives that author the 'integration' of existent features of the environment, people and objects within the story, often also situate fictional things, characters and events within the reader's vicinity, via the narrative description or recorded sound or video images. These locative narratives are written to be experienced, not just in the 'mind's eye', on a screen, stage or play space, but in the context of what is perceptually available in the world of the particular individual.

Locative narratives may present story worlds (1) that are detailed with carefully evoked characters and events, that have some thematic and temporal relations that suggest they are part of the same location as the listener, such as Cardiff's *Missing Voice* (1999); (2) the narrative may consist of fragmentary comments or brief anecdotes, that may fit within logical framework that specifies their relations to each other and the places, such as in *Magic in Modern London* (Wellcome Trust 2014). The participant searches London for where amulets were once collected by Edward Lovett, the arrival at a location GPS triggers historical

information, images and sound. The relation of the fragments is that to a theme; (3) while in some locative narratives the connections may be more circumstantial, such as other participants' responses to a questions in the same location in *Hello Lamp Post* by Pan Studio (2013, 2016). This work facilitates an exchange of anonymous text messages between participants triggered in relation to the street furniture, where there is a greater onus upon the participant to make connections and create coherence; Barthes (1974: 15) "writerly" distinction is descriptive here. In the third type of story world, I argue, it is the participant's subjective relations to the narrative pieces that are emphasised, 'what sense do I make of this?' 'How do I feel about this?', rather than absorption in the story where its characters and events are the focus of attention.

## 2) media is experienced in relation to surroundings;

The development of portable GPS enabled devices with the capability of launching of media files in response to specified geographic locations was carried by various research and engineering companies around the world, in the first years after the millennium. Hewlett Packard Laboratories (Stenton et al 2007: 98), for example, developed GPS media triggering software and in a joint research project, Mobile Bristol,[76] together with artists and academics from University of Bristol and the Appliance Studio. They created approaches and purposes for non-specialists to trigger media files on commercially available Personal Digital Assistants (PDA). The beta version of the resulting user-friendly platform, *mscapes* (2002)*,* was made available online, between (2003-2010). An international community of users shared their

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[76] Founded by Hewlett Packard Laboratories, the University of Bristol and the Appliance Studio
http://www.watershed.co.uk/dshed/mobile-bristol (Accessed December 2016)

interdisciplinary, arts, gaming, performance, educational and heritage projects, via the *mscapes* web platform, freely available for those with compatible hardware. *Nature Trailer* (2003) developed at Media Lab Europe, Dublin, by Donovan, Wood, Davenport, & Strohecker (2003: 1), a context aware-story in which narrative audio and video scenes were triggered by GPS on iPAQs (hand held computer), as walkers trekked across the island of Cape Clear, County Cork. The *Locast* software platform, developed by the Mobile Experience Lab at MIT in (2004) as Venice tourist guides, similarly tagged GPS coordinates to media files that were initially played on bespoke mobile devices worn around the neck and later the platform was redeveloped for smartphone apps.[77]

Listening to recorded audio in specific locations is a dominant feature of all of these GPS applications, while locative listening was already a well established practice. 'Soundwalks', associated with the World Soundscape Project (WSP) (Schafer 1994 [1977]: 275),[78] was initiated in the late 1960's[79] at the Sonic Research Studio, Simon Fraser University, Canada. Its initial focus was upon auditory research on noise pollution in Vancouver and its changing soundscape, later becoming a comparative study of soundscapes across Canada (1973) and European cities and villages (1975). With the intention of creating an interdisciplinary approach to acoustic design (Schafer 1994 [1977]: 275) field recordings and 'Sonography', a soundscape notation and visual diagrams of the geographic distribution of sound "events",

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[77] The Locast platform was later developed for use on smartphones at MIT http://locast.mit.edu/

[78] The World Soundscape Project was led by R. Murray Schafer, with contributors that included Barry Truax, Jean Davis, Bruce Davis, Peter Huse, Howard Broomfield, and Hildegarde Westerkamp

[79] R Murray Schafer (1977: 275) says that the World Soundscape Project came into existence in 1971, whereas Barry Truax (http://www.sfu.ca/~truax/wsp.html) [accessed 23.09.13] suggests that its beginnings lay in initial projects and Murray Schafer's publications *The New Soundscape* (1968) and *The Book of Noise* (1971).

were produced to study aural perception, noise pollution and the representation of sonic

experience (Schafer 1994 [1977]: 275).

One of the outcomes of the project was the development of soundscapes recordings, defined

by Schafer (1994 [1977]: 274) as,

> "The term may refer to [the recording of] actual environments, or to
> abstract constructions, such as musical compositions and tape
> montages, particularly when considered as an environment."

These reconstructed sonic environments are arguably fictional or fictionalized places. Project

member, Barry Truax (2001: 65) extends the definition of the soundscape to include the

"*listener plus the environment*", an "*entire system*". Schafer, Truax and the WSP's acoustic

ecological approach to sound, frames psychoacoustics within environmental science and the

arts. For proponents of WSP, soundscape is an approach to listening and a composition of an

environment, actual or imaginary (Truax 2001:53). Murray Schafer's (1977: 6) research in

acoustic ecology created an influential taxonomy of the soundscape that considered the

"emotional" and "sonic" properties of sound for the production evocative soundscapes.

Categories such as "soundmarks" and "signals" highlight the *listener's experience* moving in a

real-world environment.

In WSP member, Hildegarde Westerkamp's 1974 article, 'Soundwalking'*,* soundwalks are,

*"...any excursion whose main purpose is listening to the environment".* It is an act of focused

listening, not to pre-recorded sounds, but to the surroundings. Westerkamp suggests this may

be done alone, with a friend or in small groups, beginning by listening to the sounds of the

body. She invites us to go on a soundwalk in Queen Elizabeth Park, Vancouver. The article,

now addressing us in the second person, anticipates the GPS triggered locative narratives, I argue, presenting us with a locative narrative as-thought-experiment. Westerkamp, guides us to landmarks pointing our features of the park, suggesting we look, listen and touch, *as if* we were actually taking the walk. She says, if the fountains are turned off, we should imagine the sound of the water. We should consider which sounds in the park most appeal to us, from which we can form our ideal landscape. Of course all that she is describes is not available, unless we actually are reading the article in Victoria Park. We have to imagine everything, suggested by the description and directed by her instructions. The use of the second person, and description situates the reader in the location, "…*you are passing through wooden arcades*…" (Westerkamp 1974: 21).[80] The similarity of the articles' form with guided visualisations and hypnotic induction scripts is marked, although no reference is made to these practices by Westerkamp. She invites us to create a soundwalk, for aesthetic purposes. She suggests we first listen to a landscape, observing rhythm and pitch and then "create a dialogue" (Westerkamp 1974: 26), by lifting environmental sounds and placing them within our compositions.

Michael Bull (2005: 343-344) has described listening to music on headphones, on portable devices such as the Walkman and iPod, as creating personal space around the listener, a bubble as they walk through the city, *as* a protagonist in our own film. In locative narratives binaural sound appears 'non-diegetic', to extend the cinema metaphor. It gives the sense that sound heard through headphones appears to be located in the space around the listener, rather than in the head. It has the potential to extend the *sense* of naturalism by replicating the

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[80] Westerkamp (1974: 21) invites us to part take in other "participatory soundwalks": to orientate ourselves on a dark night to listening to the sounds of our body and the reciprocal sounds of the body; to navigate through a city by asking strangers for directions; to communicate with a bird by imitating its call; to find echoes in an environment.

localization cues experienced in real-world environments, an approach utilised by Cardiff and Bures Miller and other creators of locative narrative who integrate the story world within the participant's environment.

### 3) the structure of the narrative is linked with the mode of interaction;

The structure of the narrative refers to the logic of the order of events, whereas the interaction mechanism is concerned with the ways the participant engages with the narrative, such as: listening; searching/discovery; puzzle solving; skill/creative challenges; thought experiments; meditation; walking/running/dancing/travelling. The mechanism may, although not necessarily, relate to the story's genre (e.g. a detective drama is likely to involve puzzle solving). The interaction mechanism can have a number of implications for the structure of the narrative. I argue, a feature of locative narrative as a form, is the audience's physical partaking, to various extents, in the story that is happening in a particular place for the individual. Some locative narratives situate the stories in a type of place rather than a single geolocation, such as Duncan Speakman's *Always Something Somewhere Else* (2007) that specified distance from types of objects, rather than a specific place, however the individual's experience is always happening for them in a specific location. Taking part in a story means there is a spatial-temporal relation between the unfolding of the narrative and what the participant is doing in relation to it, whether the narrative has a single linear plot or multiple or an emergent configuration of events. If simply listening, with no choices involved that affect the narrative, then the structure of the story is likely to be linear, whereas choice requires the devising of alternative relationships between events and the rules for their configuration.

The literal and imaginative plotting of stories over geographic areas of paper-based and oral practices provide models for digital wayfaring. The children's game of hide and seek, Easter eggs hunts, 'treasure hunt' and the search for hidden items have had many literary depictions, such as, Robert Louis Stevenson's character Jim in *Treasure Island* (1883) searches for pirate's treasure, where on a map where an 'X' marks the spot. The reader accompanies Sherlock Holmes as he traverses town and country searching for evidence. In *The Railway Children* (1905), E. Nesbit portrays an Edwardian paper chase, a trail across the landscape where the terrain becomes the map. Guidebooks, suggest itineraries, activities, and present cultural mores, facts, histories associated with points on the map. In E. M. Forster's satirical *Room with a View* (1908), Miss Lucy Honeychurch consults her Baedeker for wayfinding and essential advice for the English person abroad. The expert tour guide leads and directs their audience's gaze, while narrativising 'essential' sites of interest.

Locative narratives whose events are experienced in a particular sequence, for example, when delivered as a single audio file, are necessarily structurally linear. In Cardiff and Bures Miller's *Villa Medici Walk* (2001) the interaction mechanism involves wearing headphones, and listening to the female speaker who narrates their 'movement' and the participant's exploration of the garden. Although the underlying narrative structure is linear, it doesn't preclude a play with time and space within the writing itself, that contains accounts of memories and contemporaneous events that are set in other locations. Voicemail recordings of a man in what may be war zone, are interspersed with narrative events in the vicinity.

Locative narratives that are composed as a series of parts can be described as nodal. The medium (voice/soundscape/screen/location), segregation of narrative content (thematic/ events/characters/chronology) and quantity of content within a node is determined by the overarching structure of the narrative. The metaphor of the "forking path" (Moulthrop 1991:125) attests to the status ascribed to Borges's *Garden of Forking Paths* (1941) by the Hypertext community. The model of the branching path, "forking path" or "trees" (Bolter 1991:107) is an established method of plotting narrative trajectories, adopted by proponents of Hypertext fiction (Nelson 1993) (Delany & Landow 1991:6), who in turn cite Barthes (1977) notion of intertextuality as antecedent. Ryan's (2001: 246-255) (2006: 123) analysis and diagrammatic representations of interactive narrative structures, broken into nodes and links between nodes, demonstrates the range of configurations adopted by authors and developers.

Nodal narratives can be structured with multiple story trajectories. The variables that describe the combinational logic of the nodes can be temporal, sequential or thematic. They may effect all nodes or only certain classes, for example, 'participants can only encounter $x, y$ and $z$, character nodes after they have heard story event nodes $a, b$ and $c'$. The structure can employ various logics and mechanisms, for example, an overarching narrative may have different subplots or parallel storylines within the same world.

In Kate Armstrong's seminal locative art work 'PING PsyGeoConflux' (2003) participants using mobile phones called a telephone menu system and received a series of question to prompt contemplation of their relations to the environment (Vancouver and New York). Their responses tapped into the phone, triggered directions to other locations and further questions

and instructions. Here psychogeography's concerns are to the fore, and I suggest this work can be read as the employment of the branching narrative structure for the purpose of psychogeographical thought experiments.

In the locative narrative *Machine to See With* (Blast Theory 2010) the drama of the heist is staged between participants, via their mobile phones. A series of core nodes, experienced by all, are delivered as voicemails that contain story background, navigation and instructions for activities. At set points in the sequence of events, the participant is asked to respond to questions in the form of choices presented by a psychometric test and to make various decisions about what action they will pursue. Indicating their choice as a number on the phone results in the launching a set of sub story nodes, before returning to the same core nodes that all players experience and the overarching temporal sequence of the main narrative events. Unlike narrative driven video games, such as, *La Noire* (Rockstar Games 2011) or Heavy Rain (Quantic Dream 2010), where there can be many algorithmically generated narrative paths and dialogue, locative narrative is constrained by the practical plotting of story, in terms of the existent location's characteristics, distance to be traversed and proximity of media files to each another, when triggered by GPS or beacons.

In Teri Rueb's locative narrative *Trace* (1999)[81] the mechanism of the treasure hunt is repositioned. Participants explore trails in the Canadian Rockies, discovering sound "memorials", triggered by a bespoke GPS device carried in a knapsack, discovery, revealing loss and signifying absence. Returning from their journeys, participants download a GPS-

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[81] Teri Rueb's *Trace* is updated for iPhone in 2012.

encoded record of their walk, listen to sounds again and indicate where they would like to leave their own sound memorial. The narrative is comprised of discrete, spatially dispersed, *parts* that build over time to contribute to an environment that becomes storied. This approach differs structurally and temporally from the distribution of fragments, narrative trajectories, or dialogue from a pre authored narrative within a location. *Riot! 1831* (2003) (Reid et al. 2004), a dramatic recreation of the battle that took place in Queens Square, Bristol, allows participants to walking freely within the public space. A soundscape heard on headphones depicts the unfolding scene, while the narrative nodes, individual character vignettes, are triggered by GPS in any order.

Puzzle solving can also be utilized as locative narrative structure, as in the murder mystery *Cold Case 1866* (Whittaker & Brocklehurst 2010).[82] The Devon town of Totnes is the location of a Victorian unsolved murder case and its audio dramatization of the story world. Accompanied by the voice of journalist, heard on headphones, the participant explores the town and its surroundings choosing to visit locations pertinent to case, GPS triggering interviews with suspects. Each give their account of what happened on the night of the murder, hinting about who they accuse and where they will find them, however their reliability as a narrator is always in question. The participant is asked to build a hypothesis about the identity of the culprit. When all of the clues have been collected the final node takes place at the historical location of the murder trial, where a dramatic reconstruction is heard.

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[82] In collaboration with performing arts students at South Devon College

The structure and the interaction mechanism can pose challenges for sense and aesthetics. That a narrative is 'coherent' can be taken as the expectation that causal relationships between story events retain the logics of the plot and that of the story world, without which the story can seem implausible. Plausibility, as a criterion for coherence, presents a number of questions that can be thought of as *internal* to the narrative structure, the logical connections between events and content; and those *external* to the narrative, the style, the execution of representation and its relations to its referents in the world (would people in *x* scenario exhibit these types of behaviour and is the depiction of the causal relations between events logically possible in the 'real world'?). Coherent *relations* between the internal fictional-world-logic of the representation and the external-world-logic can be a question of aesthetics or sentiment, the *feeling of coherence*. Relations between sentences infer causal links between events within a narrative.

4) **the reader-audience becomes a participant whose actions take place within the fictional world and the existent environment;**

I argue that *participation* in locative narrative involves the situated body operating within the environment of a specific place. Participation is used here to refer to (1) physical movement through space; (2) cognitive-emotional sense making and interpretation is linguistically, socially-culturally specific (Peirce 1905a: 174); and (3) participation as performative engagement (Gerrig 1993: 14), acting on interpretation, leading to further thoughts, listening, speaking, guided imagining, decision making, wayfaring, puzzle-solving, engaging in tasks and challenges, moving, cycling, running, etc.

Participation can range from interpretation and sense making to co-authorship in cases where the participant is asked to intentionally engage in creating parts of the story.  Improvisation is central to the coexistent practice of larps, described by Söderberg et al (2004) as, "*a form of improvisational theatre".* Live action role-playing (LARPs or larps), evolved in the 1970's (Montola et al 2009: 36)[83] from the tabletop role-playing game, *Dungeons and Dragons* (Arneson & Gygax 1974) and the war game *Chainmail* (Gygax and Perren 1971). Playing participants, rather than actors and spectators, become characters creating dialogue and taking part in narrative scenarios, overseen by a game master/s who have an overview of the story world and direct the overarching structure of narrative events. The setting for fictional worlds can be existent buildings and environments or bespoke elaborately constructed temporary towns. The LARP *Europa* (2001),[84] Norway, directed by Eirik Fatland, presented a dystopian world of warring Nordic countries. Players were captured, taken to a holiday park, assigned as an immigration reception centre, were they slept and prepared food and *"followed absurd rules"* (Gräslund 2010: 107). The set was 'transparent', utilising existent objects and domestic spaces, recontextualised within the narrative scenario.

The recounting of experience by live action role players to each other, 'the debrief', is taken to be an essential part of the form (Glade et al.: 1998), (Stenros & Montola 2010: 67), as the story written by the authors of the game is only experienced in fragments by an individual player's own viewpoint and no record is usually made of improvised dialogue between players. The

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[83] LARPs from 1970's occurred in the Nordic countries, UK, USA, Australia and USSR, there is no agreement on where the first LARP occurred (Montola et al 2009: 36).  Söderberg et al (2004) states, *"During the 1980ies, LARPs was a very narrow sub-culture playing almost completely in the world of Tolkien fantasy. Today, especially in Scandinavia and UK, it is a growing popular movement for people of all ages and every game stretches the boundaries of the subjects explored."*

[84] *Weltschmerz' Europa* (2001) was held on February 24th- 28th February 2001, Lunde, Vestby, Norway

meeting with others and exchanging accounts of the event enlarges the players' awareness of the written and emergent narratives. Montola, Stenros & Waern (2009: 14) describe the effect of the "temporal expansion" of the narrative by participant' introspective reports. Arguably "temporal expansion" can occur in the narrativisation of any anticipated or remembered an event. The 'debrief' has additional value for experience design where reports can feed into testing and development and for a relational approach to narrative interpretation that draws particularly upon multiple participant reports.

In the locative narrative *Machine to See With* (Blast Theory 2010) the participant is cast as a lead character in classic film heist scenario. The unseen mastermind controlling events communicates with you only by voicemail messages. No backstory is given, popular culture so steeped in the conventions of the genre, it is assumed that you will draw upon your storehouse of scenarios to perform your transformation into a gangster. The use of the mobile phone is integrated into the experience as a legitimate 'prop' of a character involved in a heist. Unlike many locative narratives, the presence of the device is not incongruous within the narrative world, nor do usability issues break with the focus on the story. What the experience is *like* for the participant is partially determined by the extent instructions are followed, getting into character, 'playing the role', going along with the premise, that you are going to rob a high street bank, and partially on the random teaming with other participants, with whom cooperating and co-imagining is required.

The EU funded project iPerG (2004-2008) brought together a number of academic institutions and industrial partners[85] to explore the design and implementation of mobile situated stories in the form of pervasive gaming. Including a number of collaborations between the Nottingham Mixed Reality Lab and *Blast Theory*. In the analysis of players' behaviour, Vogiazou et al (2007: 45) and Benford et al (2006: 427), argue that norms are generally followed by participants, however, as a result of the 'freedom' granted by the structural, physical and psychological boundaries of the experience, new or transgressive acts may result. In *'Machine to See With',* for example, the participant is asked to go to car park and get into a strangers car, an act that is outside of societal conventions for most, but within the context of the experience,[86] inhibitions are lifted. Of course we could argue that paying for a ticket that is supported by a festival and various regulated funding bodies is the broader context in which such decisions are made, however the frisson of excitement, *as-if* I were transgressing these boundaries, I suggest, is possibly a factor affecting attitudes and behaviour in this situation. Vogiazou et al's (2007: 45) "design for emergence" is an approach that utilises simple rules as a structuring to device to enable more "complex" behaviours to evolve. This is particularly evident where a number of participants interact together. Players of the game *CitiTag* engaged in unusual behaviour of their own volition, such as standing with their hands in the air in a busy street, because this 'made sense' in the context of the game.

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[85] Integrated Project on Pervasive Gaming (iPerG) EU funded project (1 Sep 2004 - 31 Mar 2006) Institutional collaborators included, SICS - Swedish Institute of Computer Science (coordinating partner) Interactive Institute, Play Studio & Zero Game Studio, University of Tampere - Hypermedia Laboratory, Nokia Research, University of Nottingham - Mixed Reality Labs, Fraunhofer Institute FIT, Sony Europe, Gotland University, Blast Theory and It's alive! http://www.pervasive-gaming.org/index.php

[86] Katie Salen & Eric Zimmerman (2004: 94) describe the context of the game as the 'magic circle' were alternative norms of behaviour may be permitted.

Participation in locative narratives involves a complex set of relations between the intersecting contexts in which the work operates: the narrative content, structure, interaction mechanism and the attitude and focus of attention of the participant.

## 5) the spatial-temporal complexity of partaking;

Cast as a character with a specific role, or as an unnamed agent within the story's world, participants move simultaneously in the physical and the represented fictional place that may spatially extend into the existent environment. While a locative narrative may present different time zones, moving between memories and the character's present moment, or fragments of poetry or oral histories, they are events happening for the participant, linked by their awareness of their physically of occupying space over time.

I argue there are multiple temporal-spatial dimensions to locative narratives: events happening for the participant in 'real time'; the chronology of the story; the time as it is represented within the narrative as the present moment or as memories, or nested recordings of past events; the relationships between the events happening for the participant and those that happened in the story; and the duration of the locative narrative experience. How these relationships are negotiated are contingent, I argue, on (1) the level of integration of the narrative and the place in which it takes place – to what extent the depiction of the story world is external to the participants experience, a factor noted by Ryan (2006: 107); (2) the style of the writing and the literary techniques employed to suggest moving back and forth through time; and (3) the narrative structure and its relationship with modes of participation, for example, in *Cold Case 1866* (Whittaker and Brocklehurst 2010) the time scale is *suggested*

as a few days available to the journalist to interview the suspects prior to the murder trial, the duration of the experience is determined by walking speed of participants and whether they choose to listen to all the suspects reports in an hour or take a detour and return to the story later.

**Conclusion**

*We can diagram the parameters of the field of expanded narrative as the authors' intention to challenge to form and their explicit or implicit engagement with multi-stability.*

In this chapter I have diagrammed some of the arts and cultural practices that I argue can be considered as antecedent and coexistent with works of locative narrative, works whose subjects, methods and theoretical concerns have feed into the articulation of the form. Locative narrative, I argue, is defined by the relations between a narrative *intentionally* situated with a participants' environment. The combination of these elements result in its *formal and experiential narrative complexity*.

I argue, it is *the authorial intention to mediate relations between the reader as a participant and their environment, with the potential for objects, people and features from the physical world depicted, symbolized or inferred within the text, sound or interface*, that is the challenge that locative narrative presents to the form of the printed novel, and as such it should be considered an expanded narrative. Locative narratives don't aim to detach or transport the reader from their current situation, instead they fashion it, thematically, historically, atmospherically, or perceptually; directing modes of engagement and framing interpretation

(*locative narrative as atmospheric)*. The existent place, supplemented with a story world in which narrative events occur and the reader inhabits (*locative narrative as local*), presents complex formal possibilities for narrative structure and story content (*locative narrative as expanded form*).

I argue, that two additional aspects of locative narrative are demonstrated by the case studies, presented as part of this research. I therefore, add a further two points to the inventory of *formal and experiential narrative complexity*:

6)  Ontological ambiguity may result when perceptual cues are not readily attributable to the existent place or the fictional world of the story;

7)  The prompting of experiential and epistemological questions, 'what does it feel like to be a participant in a story?' and 'what is the truth-value we attach to our experience when our actions take place in narrative worlds?'

These points are expanded upon below and in chapter six.

**Introducing four locative narrative case studies**

*LociOscope, The Letters.* Dartington Hall Gardens (April 2014).

*The Lost Index, No. 1: Landscape with Figures.* Plymouth City Museum and Art Gallery (November 2013).

*The Lost Index, No. 2: The Turning.* Plymouth City Museum and Art Gallery (August 2014).

*The Lost Index: NATMUS. National Museum of Copenhagen and Diesel House museum* (December 2015)

The aim of this speculative research is to explore the affect of the *metaphor of multi-stability* and develop strategies for development. In the following section and chapters, the collaborative[87] iterative processes of the four published smartphone apps are discussed and the ten prototypes from which they evolved. The many subsidiary questions that arose from this process are included in Appendix 1. that details in a series of tables the interrelated aspects of the development process of narrative, sound and participation. Developed in tandem with these practical experiments, the Jamesian experiential framework and Jamesian relational approach to analysis informs the discussion of process and resulting locative narratives.

The metaphor of narrative multi-stability, emphasizes that the perception and cognition of existent objects is continuous with that of represented objects and potentially with imagined objects too. Playing with the materials of the narrative: the reader's environment; perceptual cues; text; modes of interaction; and participant's attitudes towards the experience, are all variables that can affect the subjective experience and ontological status of the narrative. These aspects of multi-stability are put forward as strategies in the development of locative narrative, and examined here in relation to the four case studies.

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[87] Detailed records of the collaborative process conducted with the developer James Brocklehurst are included in appendix 1 and a descriptive summary is given in this chapter.

## Methodology

Ten locative narrative prototypes were developed using an iterative cycle of hypotheses forming, development and testing with developers and volunteer participants, whose reports where given in open questionnaires and semi-structured interviews.[88] Groups of up to 30 participants, aged between 16 and 70 years experienced iterations of the nine locative narrative prototypes and took part in individual semi-structured interviews.[89] Experiences relating perceptual ambiguity or misperceptions were noted and together with other factors that affected experience, such as their emotional response and technical functionality. These feed into the further development of hypotheses and testing. These accounts have been further coded using relational taxonomy, where further lines of inquiry emerged which lead to the discussion of the problems this thesis has investigated.[90]

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[88] This thesis addresses the following questions:

1) What framework of experience usefully sets the parameters for articulating the *metaphor of multi-stability*?
2) How can the affect of the *metaphor of multi-stability* be created in locative narratives?
3) How can the affect of *metaphor of multi-stability* be measured and interpreted?

A summary of methods:

1) Desk based research informing hypotheses upon affect of the *metaphor of multi-stability.*
2) Investigating the affect of the *metaphor of multi-stability* through the collaborative development of locative narrative smartphone apps produced through an iterative process of development and testing with small groups of participants through the successive production of prototypes.
3) Reflecting upon own experience and creating analyses.
4) Evaluating participant experience with semi-structured interviews and questionnaires.
5) Classifying reported features of experience, identifying the *relations in experience* and phenomena reported.
6) Analysis and interpretation of reports in the context of the Jamesian experiential framework and broader intersecting domains.
7) Developing strategies for producing the affect of the *metaphor of multi-stability* and incorporating findings into successive prototypes.

[89] Participants took part in semi-structured interviews, where their comments were recorded in written notes verbatim.

[90] The secondary research questions are detailed in the appendix, tables 1 – 25 in appendix 1.

Introspection, as James (1922a [1890]: 191) points out, is after the event, telling *about* the experience rather than providing access to its content. Participant accounts of experience were not considered as statistically verifiable data, but as memories, *reflections,* upon the phenomenal experience, told from a current vantage point as partial, particular and fallible. As 'pumps' for reflection they prompted further questions, subsequent iterations, and further speculative practice. Acknowledging the variability, contingency and fallibility of participant reports and problems of translation and interpretation of consequences, the process of prototype development and reflection on participant reports are considered to have limited and *local* value, specifiable in *particular concrete experiences*.

Narrative, sound, actions and environment are aspects of the locative narrative form, however in the phenomenal experience of locative narrative they are *co-experienced.* Participants listened to recorded narrative in the context of ambient sound accompanied by physical movements, concurrently within the environment and the story world.[91] These areas were informed by primary and secondary research in expanded narrative practices and sound design and psychophysics. Through the evolvement of prototypes, further clusters of properties where identified that motivated new designs extending from the initial research question of categorizing the types of phenomena that resulting from noticing, listening to accounts and reflecting upon experiences of narrative heard on headphones in specific environments.

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[91] These reciprocal and contingent relationships are acknowledged in tables below (1-25)

For James,[92] serial hypothesis forming and testing is how we operate in the world, while the empirical method aims at the verification of hypotheses, it is never a completely objective process. The value of conclusions drawn from experiments are attributed in experience, ascribed according to the consequences that follow from believing something to be true (1909b: 216). Here the results of testing were determined by the practical consequences that follow in the development of prototypes leading to further hypothesis and testing. There were no 'control' experiences. It was not a positivist study, rather an emergent poetic play with a collection of variables for the purpose of producing further speculative practice.

**Brief overview of the testing and prototype development processes**

The prototypes, initially paper-based designs and rudimentary sound files accompanied by paper-based maps, were followed by a series of working prototype smartphone apps. The coding of the prototypes and interface design was undertaken collaboratively with the software developer James Brocklehurst. The software was developed[93] incrementally, in response to the findings from each phase of testing. These prototypes were evaluated in relation to series of emergent research questions[94] concerning the experience of the locative narrative and the closely related issues of usability and functionality of the application.

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[92] This idea is articulated throughout James' writings, some examples: (WTB 1910 [1897]: 24), (P 1907: 270, 273), (MT 1909: 64), (SPP 1911: 223)

[93] I proposed changes to the app and James Brocklehurst implemented the app development in Objective C for iOS.

[94] The secondary research questions are detailed in the appendix, tables 1 – 25 in appendix 1.

Testing the first iterations of the prototypes involved notes details about:

- Narrative in relation to participation design;

- Movement while listening;

- Listening and perception of the recorded sound in the environment.

The apps were initially evaluated in relation to a set of criteria devised for functionality and usability.[95] When sufficient functionality was achieved for volunteer participants to use the app unaided, volunteers were asked to describe their experience of the prototypes in semi-structured interviews where they were asked, 'What was your experience like?', 'What was your experience of the narrative like?', 'What was your experience of the sound like?', 'What was your experience of using the app like?'. Initial findings were cross-referenced and anomalies noted. Fixes to general functionality and usability issues of the app were proposed, as were the computational variables that were discussed with the developer James Brocklehurst.

In the second stage, small groups of between 5-15 participants tested the evolved prototypes.[96] Accounts of experiences were given in individual semi-structured interviews that were written down verbatim. They suggested that perceptual and imaginative experiences were contingent upon many factors, including the participant's opinions on the

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[95] Initial usability questions: Do the voices trigger in the predetermined locations? Do the voices triggers singularly? Can the correct soundscape be heard with the associated voices? Can another soundscapes be heard at the 'edges' of the zone of the triggered soundscape? To what extent are zones drifting? Can ambient sounds be heard concurrently with the recorded sound?

[96] Iterations 7-9 were tested with small groups of participants.

narrative content and structure and their attitude towards taking part in the experience. Mistaking recorded sound for environmental sounds or believing that imagined people, animals or events to be veridical, was repeatedly reported and often associated by participants, as being "immersed", "focused" or engaged.  Reported categorical descriptions of what was referred to as "the real world", "the app" and the "imagined" were often described as becoming confused, ambiguous, or uncertain.

In response to the themes emerging from prototype development and experimentation with perceptual illusions, three further models of the first app, *LociOscope, The Letters*, were developed: the 'button pressing model', 'text messaging model' and subsequently the 'tracking map model'. Refined prototypes[97] of the 'tracking map model' evolved into the published 'LociOscope model'. Further experimentation took place by adapting the 'LociOscope' model for the different environments, the Plymouth University campus and The Plymouth City Museum and Art Gallery. Themes emerging from accounts of the phenomenal experience of *LociOscope, The Letters* included the effects of location on misperception, narrative suggestion and actions. These became the foci for *The Lost Index* smartphone apps, in which the evaluation employed semi-structured interviews with small groups of 5-15 and with larger groups[98] using anonymous questionnaires.

**Locative narrative prototypes and case studies**

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[97] Further conditions and fixes were proposed by EW and then implemented and tested with James Brocklehurst.

[98] The *Lost Index, Game 2, The Turning*, was tested with 35 participants, aged between 16-60 years. Four open questions asked about the experience: Can you please describe: your overall experience of the game*;* your experience of the game's sound; your experience of the game's story; your experience of using the application's technology.

Tables 1 - 9 (see Appendix 1.)

1. *The Letters,* at Dartington Hall Gardens version 1 (scattered voice points)

2. *The Letters,* at Dartington Hall Gardens version 2 (button selection)

3. *The Letters,* at Dartington Hall Gardens version 3 (SMS, prototype)

4. *LociOscope, The Letters,* at Dartington Hall Gardens version 4 (LociOscope – 'tuning device'). Published iTunes (April 2014).

5. *The Letters,* for Plymouth University version 5 (prototype)

6. *The Letters,* for Plymouth City Museum and Art Gallery version 6 (prototype)

7. *The Lost Index – Landscape with Figures* (version 1: suggestion). Published iTunes (November 2013).

8. *The Lost Index – The Turning* version 1 (treasure hunt, with buttons)

9. *The Lost Index – The Turning* version 2 (treasure hunt, with Bluetooth) Published iTunes (August 2014).

10. *The Lost Index – NATMUS* (treasure hunt, with Bluetooth, Copenhagen narrative across two sites, National Museum of Copenhagen and the Diesel House) Published iTunes (December 2015).


**Case study 1: *LociOscope: The Letters***

*The Letters, at Dartington Hall Gardens, Version 1: scattered voice points*

The starting point for the development of the first prototype was an archive of travel correspondence sent between two recipients during January to April 1925. The letters discuss

the writers' destinations, their long-distance relationship, the mysterious 'experiment'[99] and the discovery of Dartington Hall. The original letters were forwarded to banks and hotels and were often delayed or arrived out of sequence. In the letters the authors refer to the fragmented nature of their communication, reiterating each others' sentences and questioning the meaning of phrases. Tension and ambiguities were protracted over days and distances travelled, suggesting both temporal and spatial dimensions that would become a feature of the locative narrative. The letters also act as a travel log, descriptions of Rome, Yosemite National Park, London and San Francisco harbour intersperse the authors' discussions. The original letters[100] were transcribed and coded by reoccurring themes (friends, places, weather, significant objects). Extracts selected and used in the construction of a narrative as a spatially and temporally conversation between two characters whose fragments could be encountered in any order, with the exception of the first fragment that begins all participants' experiences.

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[99] 'The experiment' was how Dorothy Whitney Straight and Leonard Elmhirst in their travel correspondence referred to moving to England to start an educational agricultural experiment similar to that initiated by the poet Tagore in India that Leonard Elmhirst had helped run in 1924.

[100] Forming a small part of the forms part of the Dartington Hall Trust archive, personal correspondence between Dorothy Whitney Straight and Leonard Elmhirst of January and March 1925, held at the Devon County Record Office was transcribed by myself. Permission to use the letters as part of this project was kindly granted by The Dartington Hall Trust.
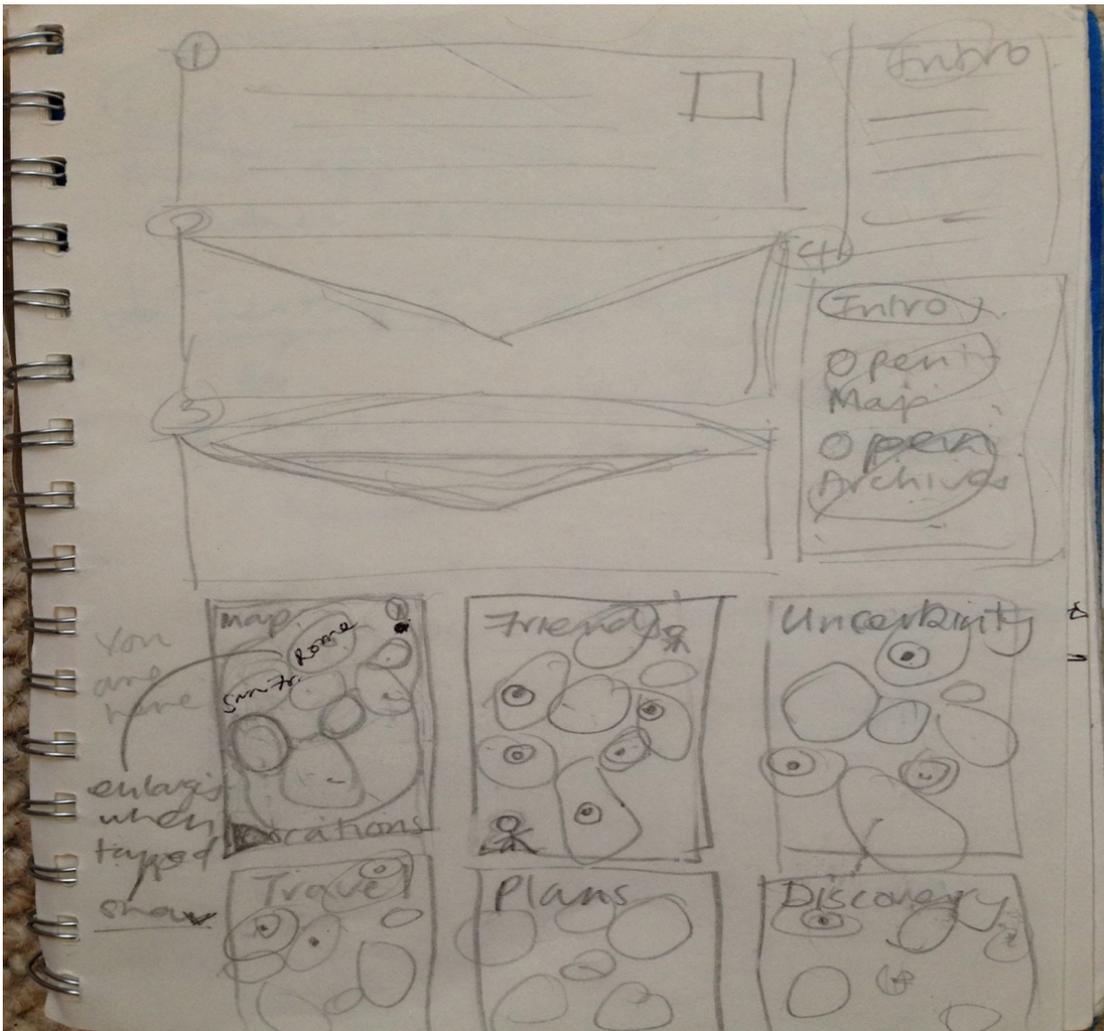
*Fig. 1, The Letters, for Dartington Hall Gardens. Initial sketches for thematic coding of archived letters.*

Evocation of the world of the story became the initial focus of the first prototype.[101] In the development of the narrative there were two early concerns: structure and participation with the narrative. Various models of interaction were considered: the 'branching path' model utilized in a previous project,[102] offered the potential to create engaging interactive experience but multiple trajectories can be unwieldy in terms of the quantity audio material

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[101] The relationships between narrative, participation and sound design are detailed a series of tables accompanying each prototype.

[102] Whittaker, E. & Brocklehurst, J. (2010) *Cold Case 1866.* iphone app: iTunes.

and size of the location required to physically plot trajectories. What I refer to as the 'world model', a story world with its own logic, rules and attributes, offered an opportunity to integrate narrative events with the representation of travel locations as fictional places in sound.

Dartington Hall gardens, as discussed in the authors' letters, is the site of the first prototype. The fictional world of the story was constructed with seven travel locations, described in the letters. These became 'zones', mapped over 25 acres of gardens. In a novel, readers are familiar with switching between locations; in the story world of a locative narrative there is a doubling of fictional places and that of the existent location. Questions are posed about the spatial and temporal relations between these environments, the narrative telling and the participant's encounters with these dimensions.
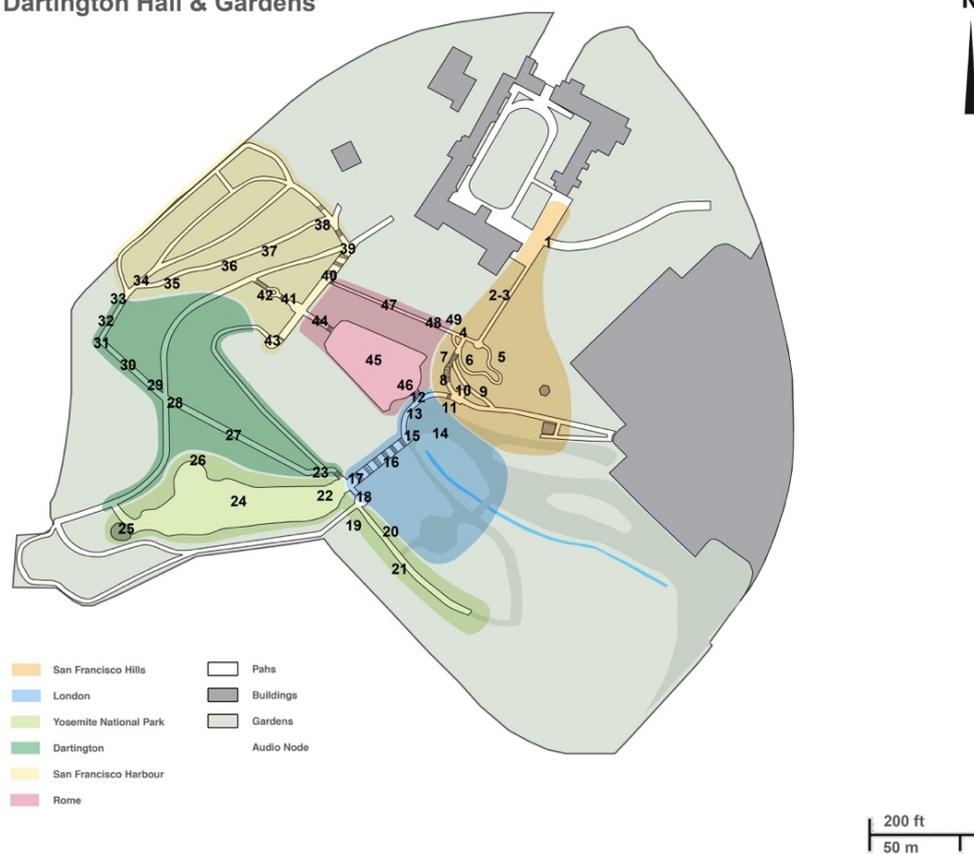
*Fig. 2, The Letters, version 1 'scattered voice points'. Final plan for position of zones and voice nodes in garden.*

The initial practical plotting of sound files in the environment used a paper map and MP3 files to align audio recordings of letter fragments with areas of the garden. Drawing upon established research concerning the of triggering media files tagged with GPS coordinates, a bespoke iOS smart phone app was collaboratively developed with James Brocklehurst, to enable sound files to play automatically when a participant reached a particular location. The aim of the app was that the 'operation' of the narrative did not become the participant's main activity, distracting their attention away from the story content.

In the next iteration, the fictional world consisting of the represented travel destinations was plotted over the gardens. The specific sites were selected for the purposes of making visual and sonic connections between the fictional places and the existent locations in order to experiment with creating misperceptions between what was heard and what was seen. 'Yosemite National Park' was sited within the garden's Redwood trees and the Italianate design features of the garden's 'tilt yard' became the location of the Rome zone. Voice recordings[103] of 58 letter extracts were sited in natural stopping places, such as, benches, sculpture, vistas, and grouped within the location zones. The aim was that participants could take any route around the garden while triggering (heard on headphones) the soundscapes and the related letter fragments.

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[103] Six voice artists were recorded. The voices of Phil Smith and Anne Kelly were selected after initial testing of the prototypes in response from feedback from participants. The qualities of the actors' voices were of particular concern for participants who preferred voices that they considered to 'fit' the characters and those whom they 'felt' some connection with.

**Fig. 3** *The Letters*, version 1 'button selection'. Location of one of the voice points in the garden.

The participant's role was one of discoverer, 'coming across' sounds of other places and 'overhearing' on-going conversations as they walked, from which an overarching narrative could be constructed. Reports from the initial testing suggested that this participation mechanism was too open and did not provide sufficient structure for listeners to assimilate a coherent narrative.

**Fig. 4** *The Letters*, version 1. Location of one of the voice points in the garden.

The GPS accuracy within parts of the garden ranged from ten to forty-seven metres. As a result, the sound zones and voices 'drifted' (the shifting of plotted GPS points due to signal strength, weather, physical obstructions, etc.) from their intended sites, affecting the visual connections between the virtual sonic locations and randomly triggering sounds on and off, as the participants' position registered as being in or out of a zone. Several conditions[104] to mitigate the problem were tried, such as triggering one voice at a time, playing to the end before a new voice starting, only retriggering after ten minutes, etc. Beta testing showed that

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[104] The smartphone prototypes were developed for iPhone in Objective C for iOS. In a process of collaborative development, where conditions were specified by myself, and the coding was implemented by James Brocklehurst.

participants' walking speed also affected the experience. Walking quickly was reported as the zone appearing to travel with participants like listening to a radio, affecting awareness of soundscape's spatial qualities, its relation to the letter fragments and the garden. In response, a condition was added to fade out sounds when the participant exited the story location that resulted in the letter extracts not being heard in their entirety, causing unintended fragmentation. Testing indicated that this reduced participants' ability to make connections between the letter sections and construct an overarching coherence to the story. "*I'm used to more linear stories. If I could do it again I could work it out more.*"
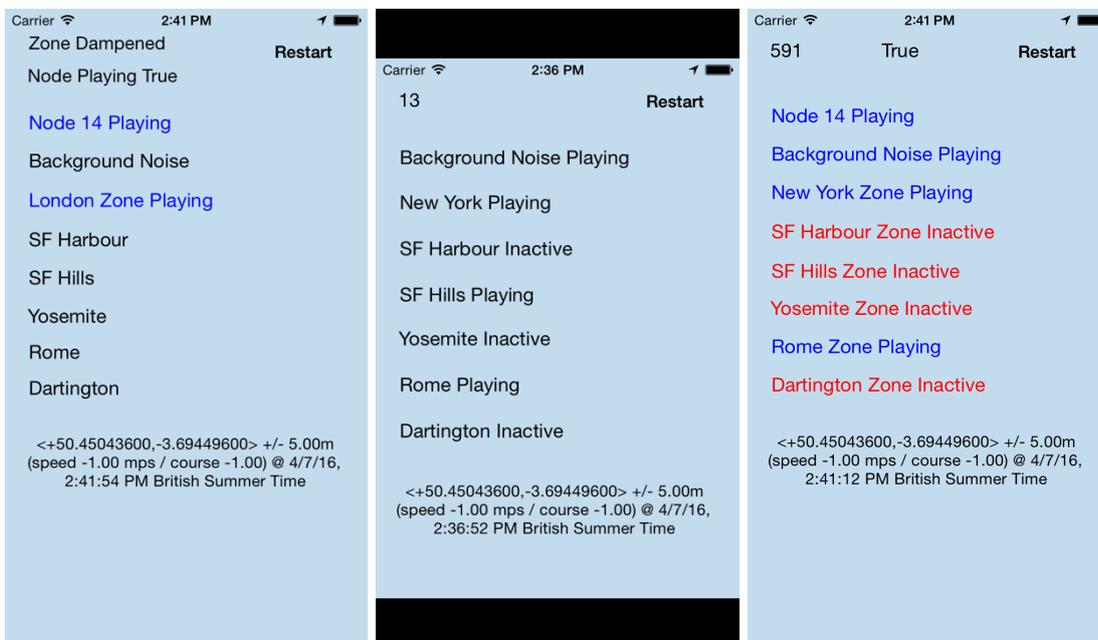


**Fig. 5,** *The Letters*, version 1 'scattered voice points'. Screenshots from app prototypes.

Dynamically responsive binaural sound offered a potential solution to the encountered issues by generating the effect of spatial dimensions of the story locations in relation to the individual participant's movements. However, the fluctuating accuracy of the GPS meant that the simulation of aspects of naturalistic listening, such as head height, the direction of facing and speed of travel, in relation to the inferred sound sources, was very difficult to achieve without additional hardware such as head-mounted devices and external sensors. Perception

of sound is affected by the direction the head is facing in relation to the sound source. How the participant holds their smartphone does not necessarily tally with the direction of their head. Possible alternative solutions were to identify positions of virtual sound sources plotted in the existent location and generate an algorithm that responds dynamically to the participant's movements by calculating the distance from the virtual sound sources and playing sounds with appropriate intensity. In addition, to mitigate problems of the participant turning around and hearing the same sound again sounds, plotting sounds temporally is also required for this solution to function as required.

Experimentation was conducted with James Brocklehurst using the iPhone's gyroscope and accelerometer to measure participants' movements from a fixed point in the existent location to the fixed point of the virtual sound source. Sound events within the virtual location were triggered with the intensity of the sound increasing with movement towards the sound source and decreasing as they moved. This method could not *dynamically* utilize all of the main factors that influence spatial sound perception (frequency, intensity and reverb) and could only respond dynamically to intensity. As a practical compromise I incorporated frequency and reverb (non-dynamically) in the post-production of the sounds in addition to field recordings of sounds using binaural microphones.

**Composition**

The sound design was devised by investigating the particular historical sonic characteristics of the seven travel destinations in 1925. In the design of the Rome soundscape, for example, recent photographs, and those of period, indicated the proximity of the writer's hotel balcony

to the Borghese Gardens, Rome. Archive film footage showed the types of traffic, horse and carriages, cars, vans, trams and bicycles and density of people on the streets, from which sound levels and characteristics could be inferred. Diagrams of the actual locations were made notated with 'key sounds' or "Soundmarks" (Schafer's 1994 [1977]: 6), that sonically signify a particular location.  A condensed area of the travel destination was transposed spatially onto selected areas of the gardens. The represented locations where plotted temporally with sounds that occurred for 5 -10 minutes in each location.
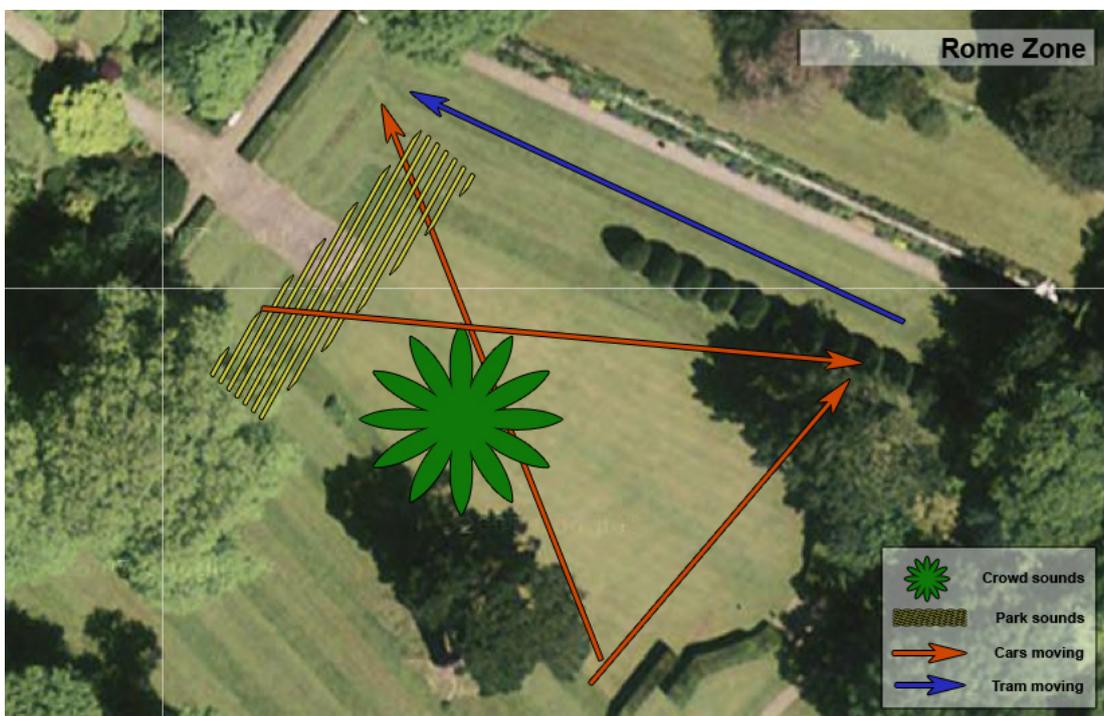


**Fig. 6** *The Letters*, version 1 'scattered voice points'. Diagram showing spatial sound design plan for 'Rome' zone, transposed onto location in garden.

Binaural and stereo recordings of historical vehicles of the period were made at the Black Country Living Museum.[105] Both binaural recordings and synthesized binaural sound were used to create a sense of the spatial dimensions of the virtual locations. Listening on

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[105] The recordings of the vehicles were of the period but were predominately British rather than Italian makes.

consumer headphones allow sounds in the environment to be heard concurrently with the recorded sounds. Binaural sounds heard in the existent location can appear to issue from external sound sources and be mistaken for non-recorded sounds.

The compositional process arranged sounds spatially and temporally and audio strategies for extending the world of the story into the existent environment occupied a range from simulation to symbolism. Sounds pertinent to the specific locations and the historical period were plotted in three dimensions. Using techniques established in the development of virtual environments (Begault 1994: 52). Spatial sound was used to simulate the localization cues experienced in the actual or similar existent places. Sounds such as vehicles moving around the participant on horizontal planes at varying distances were combined with 'spot' sounds, such as a close or distant voice, horn or animal sounds. These were layered to create a complex naturalistic environment. Sounds were also used symbolically to signify main features of a location, such as a market square in Rome, around and through which sounds of vehicles and people moved in and relation to. Composition also assembled key sounds sequentially[106] to draw attention to the environment changing over time.

In between the location zones recorded sound ceased. Participants interpreted this to be a fault or an ending. In response, a continuous ambient sound track was created that sampled and slightly heighted the ambient sounds heard in the gardens. Maintaining the attributes of fictional place seemed to alleviate this issue.

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[106] Car engine starting up; city sounds fading out; countryside sounds fading in; car door opening.

**Having a purpose**

In the testing process, participants indicated that they would prefer some idea of where to walk, rather than wandering around without a specific direction. They also commented that they experienced a sense of sounds surrounding them but they didn't necessarily know what parts of the world of the story they pertained to. As a solution an on screen map was developed that styled the existent gardens as the fictional places in order to help 'anchor' (Barthes 1977: 39) the interpretation of the sounds and suggest where to walk. Participants reported a greater sense of purpose and set off trying to locate the fictional places depicted on the map, however it partially negated the effect of accidentally coming across voices, as participants soon worked out that story fragments were located in the fictional places. The narrative structure in effect becoming a game mechanism in which participants complete (unspecified) tasks, of locating the fictional places and voices and actively attempting to construct the narrative.
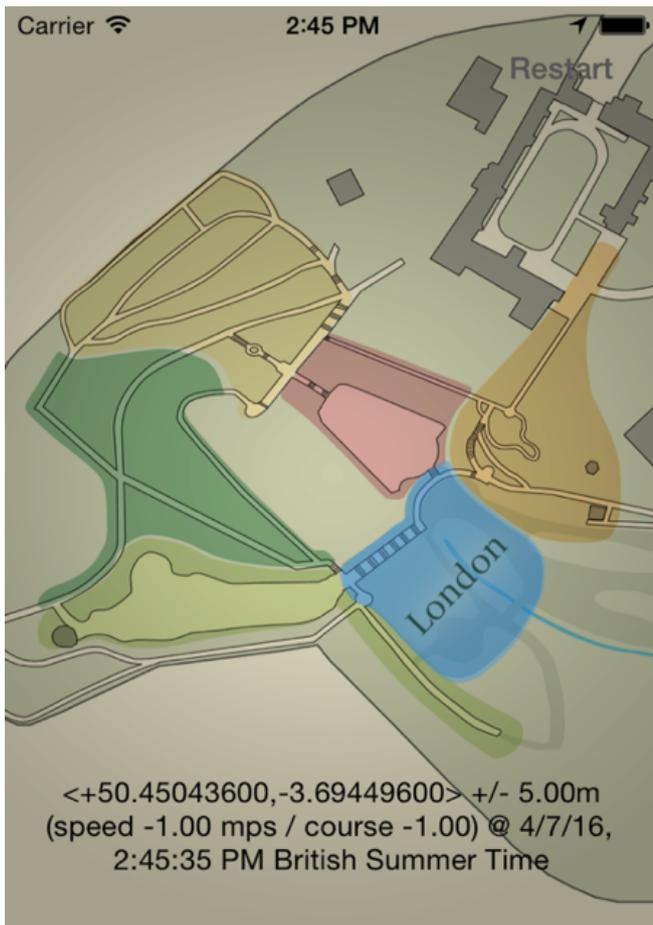
**Fig. 7** *The Letters*, version 1. Screenshot from app prototype, showing a zone becoming active upon participant entering that area within the garden.

Questions arising about the structure of experience:

- When is the world of the story identified as a representation that is separate from the existent environment?

- When is the world of the story and the existent environment identified as synonymous?  (A doubling of presence and absence?)

This prototype experimented with evoking the world of the story using voiced letter fragments and fictional locations in spatial sound, triggered by walking.

See Appendix 1. for Figs. 1, 2 and 3 *The Letters,* for Dartington Hall Gardens: Version 1 ('scattered voice points): Design tables.

**Developing the second prototype of The Letters - 'button selection'**

The second prototype aimed to investigate the problems of the incoherent narrative structure and the participant's mode of interaction. The excessive fracturing of the letter fragments arose from participants walking back and forth between fictional locations. This meant that parts of the same letter were not heard as group. The letter fragments were separated from their main topic and the contextual signifiers, such as, the date and place they were written. The chronological 'story time' is also broken into smaller chunks, which were a greater challenge for participants to construct as a narrative sequence.

Redesigning the spatial plotting of the sounds over the garden aimed to address this issue. Grouping individual voice-points together according to their relevance to each fictional location and associated with a geographical zone in the garden, regained some narrative coherence. Groups of fragments were edited into seven sound files that reduced the potential combinations or variant trajectories that participants could make through the narrative. However, the benefits of more closely controlled plotting were clear relations between story causes and effects. Dorothy's description of driving into the San Francisco hills with friends was followed by an account of the picnic, rather potentially heard in between her walk in snowy Yosemite National Park. Experimentation with constraining the conditions of when a voice fragment could be played, i.e. no. 49 not before fragments 46 – 48 and not if 49 has been

played, had a similar effect to editing into a single file but more difficult to implement on the ground because of GPS drift.
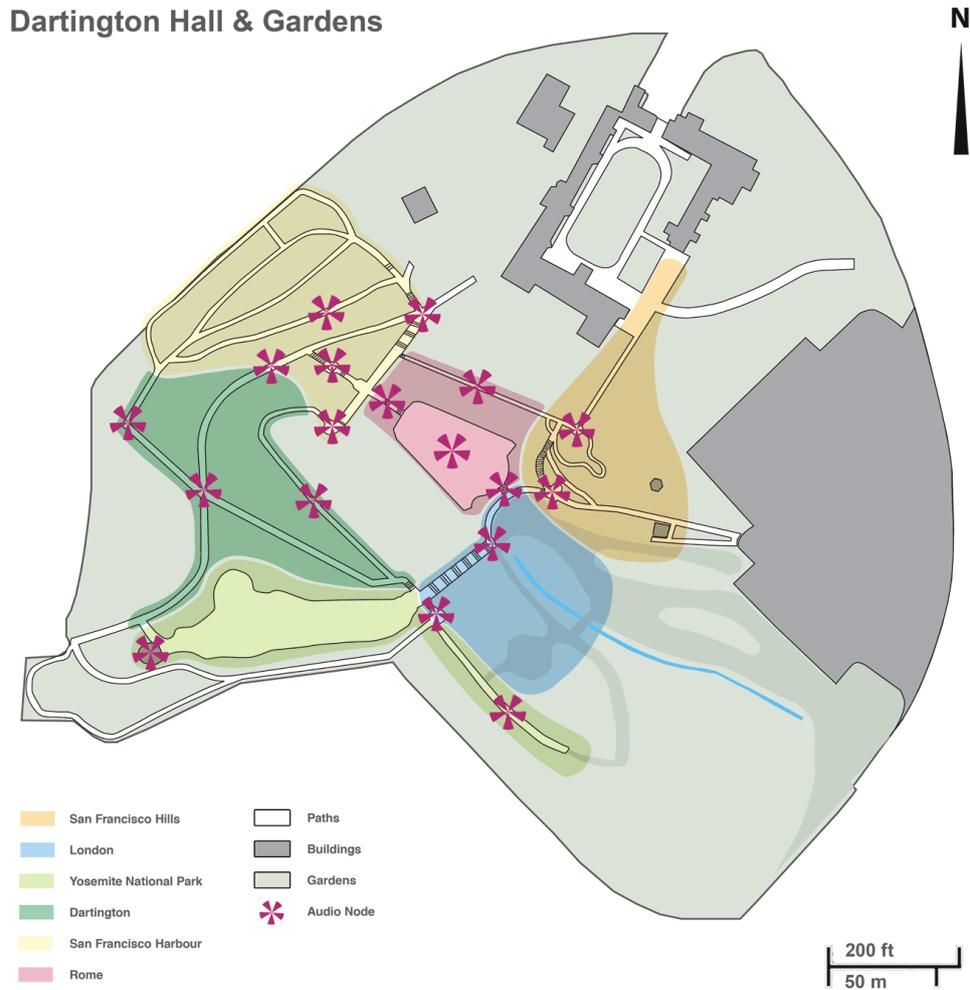


**Fig. 8** *The Letters,* for Dartington Hall Gardens, version 2 'button selection'. Plan for position of zones and voice nodes in garden.

To aid navigation and identification of the virtual locations an illustrated on-screen map was developed that overlaid over the gardens the soundscape zones. The style and colours of the

design reflected British industry and maps of the early 20th century.[107] When the participant was within a certain radius of the zone the name of the virtual location appeared and the zone area flashed on the map. GPS drift meant that zones triggered, but not necessarily in place signified on the map. In response the flashing zones were developed as buttons, that when pressed linked to a historic photograph of the location and the associated soundscape and characters letters'. A clearer relationship between the soundscape, letters and the location within the garden was established, but manually selecting the sounds via a button on the map shifted the emphasis away from discovery of an invisible place, to a more prosaic experience of activating an audio guide. The map's function was to designate the site of the fictional location and to aid navigation in the gardens, however participants often became focused on attempting to navigate via the map, commenting that they and got lost easily.



**Fig. 9** *The Letters*, version 2 'button selection'. App screens.

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[107]In response to EW's participation design requirements James Brocklehurst created the illustration for the map based on early 20th century British map design and colours and integrated into the app.

Diagrammatically plotting binaural sounds as a radius from a central point and then organising these sounds temporally within a single sound file achieved greater control over the auditory spatial dimensions of the fictional places. The layering of key sounds was used to signify the characteristics of the environment with subtler ambient sounds such as voices, footsteps, animals and diegetic music to provide detail and texture.[108]

Thresholds between the imaginary and what we hold to exist and not exist beyond the surface of the body may be difficult to discern, William James argues, if sounds for example, are faint, dim or confused by more dominant perceptual cues (1890b: 70-72).

The perceivable dimensions of the fictional locations were defined by placing sounds whose sources were binaurally recorded in locations with similar reverb at varying distances. Additional field recordings were binaurally synthesized in postproduction to emulate these spatial dimensions. In the opening seconds of the London zone, beneath the writer's hotel window a car starting up in a side and children's voices were heard. In the same letter the writer describes leaving London and driving through countryside. Recordings that were made inside an antique car surround the participant. Outside the car, the occasional song of a bird is heard in nearby woods and fields, moving forward in time, the character is outside looking at house he's interested in purchasing. Although there is greater control and depth achievable in the layering of sounds within a single sound file, they are not triggered individually as participants move in the garden. Retuning to the same zone can result in the fictional places seeming contrived or predictable if the sequence of sounds is recognised as being the heard

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[108] Creating texture in soundscapes was discussed with Nick Ryan in April 2012 in relation to his compositions for the audio game *Papa Sangre* (2010).

before, this is particularly evident with impactful sounds such as the arrival of the tram. *"Some sounds shattered the peace and quiet."*

Sounds that were most likely to occur in the gardens, such as, birds, animals, footsteps, children and a plane, were frequently mentioned by participants as indistinguishable, initially or persistently, from non-recorded sound. If there was no contradictory information or there was no expectation to see the sources of sounds, misperception of perceptual cues seemed more likely to occur. "*It was a strange experience, especially hearing sounds that you don't know are recorded, like the birds and the countryside.*"

The voices reading the letter extracts often connected the interpretation of the sounds to their location and its particular features. The interpretation could be affected if participants focused on the soundscapes rather than the content of the letters; for example, one participant described the walk through the snowy Yosemite National Park as being at the seaside, *"I liked crunching across the beach."*

*The Letters,* for Dartington Hall Gardens, Version 2: 'Button selection': See Appendix 1. for Figs. 4, 5 and 6: Design tables.

**Summary and Jamesian relational analysis**

While the mechanism of locating the soundscape on a map held the potential to engage the participant, manually selecting to play the soundscape emphasised the experience's mediation. We can analyse this observation in terms of *relations to the value of reality and*

*volition* and *relations to proximity of the story world.* The *value of reality* may be less likely to be applied to the representation of the story world, as an existent place, even temporally, if the participant's attention is drawn to and they are asked to actively engage in the process of mediation. While pressing a button to start or end an experience that perhaps has parallels with opening and closing the cover of the book, it is perhaps the repeated action of bringing the world into being activated by pressing the button that diminishes a sense of a separate story world. What are the conditions required for the participant to have a sense of physical proximity to the world of the story? What are relations that need to be brought to the fore in order for the story world to seem as if it has own existence, that exists outside of the participant's act of will?

In *The Letters* the narrative moves between a number of locations, view points and temporal shifts, for example, in the London zone the writer is in the hotel room, inside a car and then walking in a garden. While a reader or filmgoer may easily move between narrative situations they usually maintain a fixed position in their chair. Character's changes of perspective and location are experienced in relation to changing spaces within the existent environment, potentially drawing attention to their mediation. A coherent rationale within the narrative for participant's movements may have a bearing on participant's engagement. Reality, James (1890b: 311) says, is a belief that is relative to particular circumstances. What is believed to be real depends upon our relations to that object and their particulars: our attention to the object, it's vividness, the sensations and emotions we connect to it, it congruence with the system of objects and their relations. *Relations to proximity* between the participant the story world and to the physical location can activate beliefs about the reality as a value ascribed in experience.

However naturalistic the soundscape may be, the locative narrative is likely to be perceived as a mediated artefact. Naturalistic sound recorded on location includes a complex array of sounds that occur simultaneously within a given place and time period. However, clear individuated sounds, used metaphorically or metonymically, such as a creaking door, wind whistling through trees, etc., as per the conventions of film, radio drama or even documentary, can make sounds *seem* realistic, the *value of reality* is given to the experience (perhaps because the *value of reality* has already been given to those sounds by the listener in relation to other media, such as film).

*Relations to imagining, volition, emotion and action*: Participants who reported their readiness to engage in imagining, the adoption of the supposition, *as if* they could really hear voices and uncover places from the past, also reported misperceptions and connected the descriptions within the letters to the content of the sonic locations. *A relation to desire* to imagine, that lead to acting *as-if.*

**Developing the third prototype of The Letters, 'text messages'**

The third prototype[109] focused upon changing the narrative framing to implement a different participation design and mode of engagement, in order to integrate the finding of the fictional locations into the interaction design. *Apparently tucked into pages of a second-hand book, a*

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[109] This prototype was partially realized using sample sections of the narrative and sound. The idea of non-playing characters communicating with participants was explored further in the *Lost Index* collect of apps, as below.

*friend tells you about their discovery of list of mysterious numbers that they later find to be GPS coordinates pertaining to Dartington Hall Gardens.*

The idea was for the participant was to locate the coordinates and discover their significance. They were to be revealed as coded letter fragments that can only be downloaded at specific geographic locations. Participants needed to work out the puzzle of the letters and find out whether their friend knows more about the encoded letters and the historical locations than they are saying. *Are you being used in some covert intelligence operation, or is this really a chance discovery?* An anagram finally leads to ruined church tower in the garden that was used for radio communications during WW2.
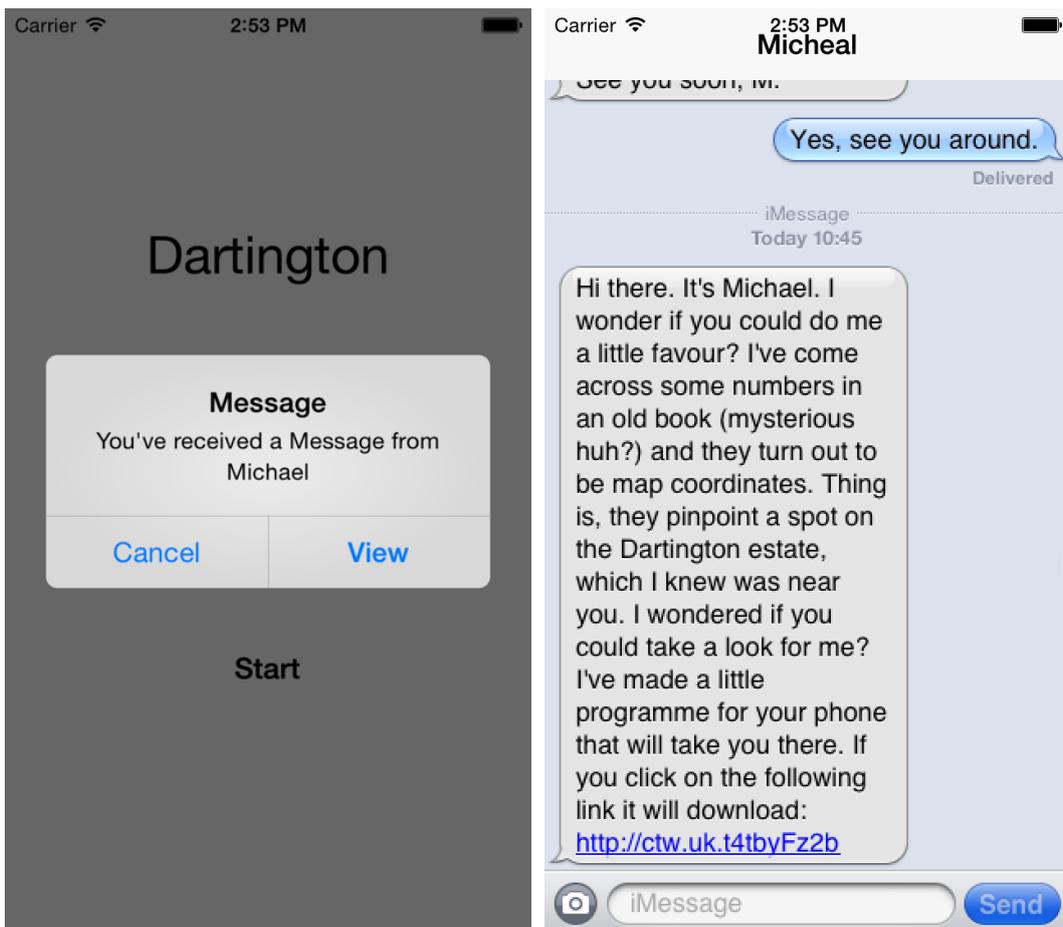
**Fig. 10** *The Letters*, version 3 'text messages'. Screenshots from app prototype of initial screen simulating a text notification, simulated message from fictional character and simulation of 'scanner app' being downloaded to participant's phone.
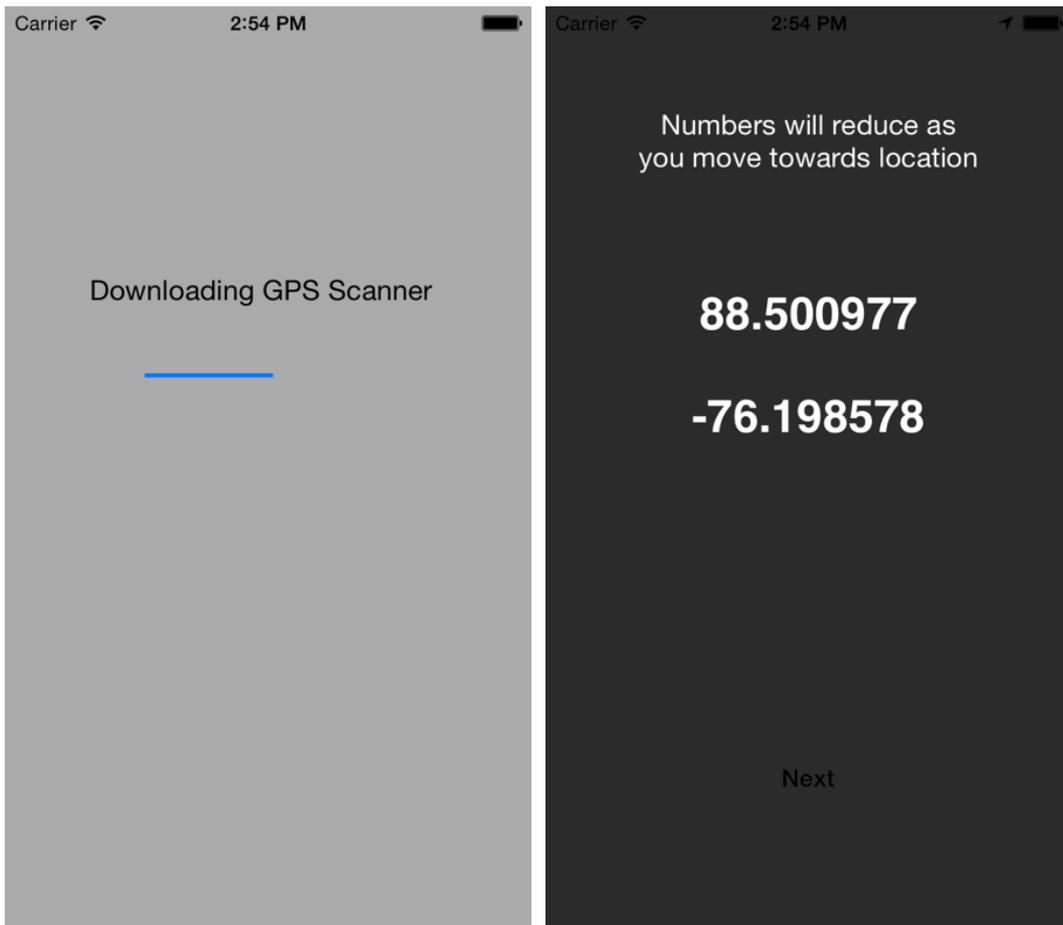
**Fig. 11** *The Letters*, version 3 'text messages'. Screenshot from app prototype showing simulated 'scanner app'.

The interaction design involves the participant receiving a series of (apparently real) text messages that provide clues and GPS coordinates that can be visited within the grounds. A GPS locator app is downloaded onto the phone and the participant uses it as a device to navigate around the gardens. This alternative method of navigation elevates the necessity for a map and issues of drift by using the activity of lining up the coordinates with those on screen. When the coordinates are matched the letter fragments are heard. The letters, once found, can be replayed by selecting the coordinates from a list, to aid puzzle solving. The voice recordings are utilized with additional text messaging sounds to add realism.
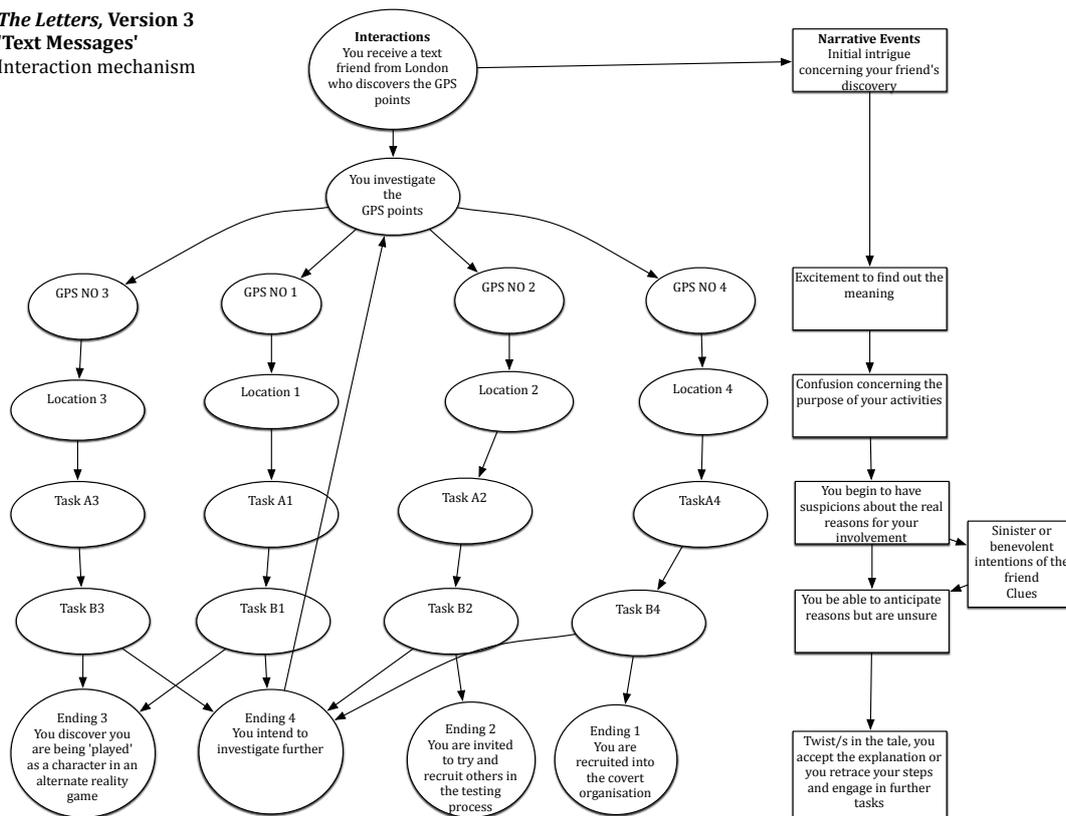
**Fig. 12** *The Letters*, version 3 'text messages'. Diagram of interaction mechanism.

See Appendix 1. for Figs. 7, 8 and 9 *The Letters,* for Dartington Hall Gardens, Version 3: Text Messages: Design tables.

## Summary and Jamesian relational analysis

The new narrative framing turned *The Letters* into a game that provided a clear role for the participant (*relations to action*) and a rationale for the letters within the location (*relations to rationality*). Issues of drift, navigation and triggering are overcome (*relations to rationality, relations to proximity* of the participant to the story world)*.*

The participation and interface design uses a series of text messages and accompanying sounds that are convincing and build suspense. Here *relations of the aesthetic* appearance of texts to the *value of reality* are activated and *relations of the aesthetic* and *emotional value* of suspense. The text messages while resembling the iPhone messaging screen, the participant in this test version, was not able to text back, which would add additional, functionality and 'naturalism' to the experience *relations to rationality* and *relations to volition and action*.

This idea was not developed beyond the script, initial prototype and mechanism for sending 'fake' texts because the sonic fictional places in this iteration were made redundant, although they could potentially be worked into the narrative. The idea of a friend contacting the participant was utilised in case study 3.

**Developing the fourth prototype of The Letters, 'LociOscope', published on iTunes**

Building on the experiments of the third prototype, the app enables the phone to become a device for figuratively 'enhancing perception' and 'tuning' into the past,[110] by the means of a time travel device called a 'LociOscope'. The letters become a (fictional) conduit in this process. The app's integrated manual specifies how the participant can operate the device and frames the narrative, providing background to the writers and the letters.

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[110] Excerpt from the LociOscope manual:

> *"The LociOscope works by amplifying the emotional resonance found in specific locations. This edition of the LociOScope has been calibrated to detect the imprints left behind by this treasured collection of letters associated with Dartington Hall Gardens. The LociOscope gives you access to times and situations in which these letters were written."*

**Fig. 13** *The Letters*, version 4, final version. Screenshot from app prototype showing
early version of voice points represented on map prototype and zones as areas of 'disturbance'.

Designs for the LociOscope's interaction design and style were sketched to reflect domestic

machines of the era of the letters[111]. Finding entry points to the past became the premise for

participant's participation in the gardens. Drift was incorporated into the experience as a

process of tuning-in, through movement and readjustment of the participant's position. This

prototype used a refined version of the second map.[112] In response to participants' comments

for enhanced clarity, colour contrast was increased and the entry points to the virtual

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[111] From sketches and design specification James Brocklehurst developed the visual appearance of the *LociOscope*.

[112] The design specifications where developed by EW in response to participants' responses to testing. Design
decisions were discussed with and implemented by James Brocklehurst.

170

locations were displayed as white clouds, alongside illustrated landmarks,[113] in later

iterations. The participant's position was tracked and appeared as a dot on the map to aid

navigation. Functionality was also improved by zoom and scrolling capabilities. Some

participants said they still found it difficult to find their way around the garden and would like

a compass to be included in future updates.

Historical photographs of the travel destinations from the period included in the second

prototype were removed, as this seemed to signal the existent locations absence and disparity

with the sonic representations. The names of the locations, however, were reintroduced onto

the map to further anchor the interpretation of the soundscapes.



**Fig. 14** *The Letters*, version 4, final version. Screenshot from final app. The 'LociOscope' instruction manual.

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[113] James Brocklehurst designed the landmark icons that feature on the map to aid navigation.
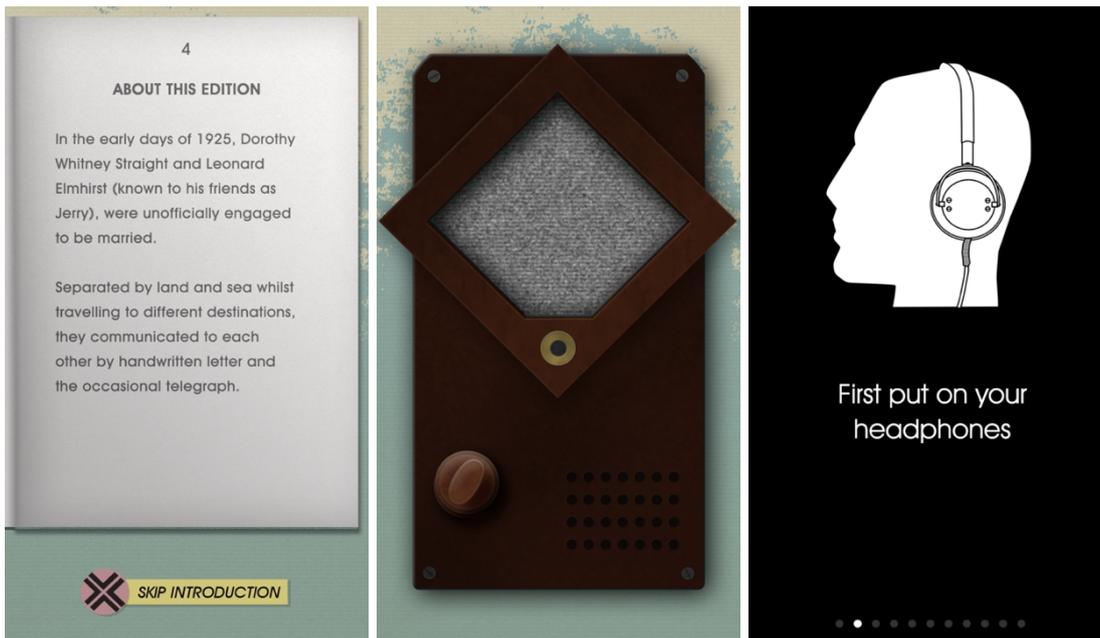
**Fig. 15** *The Letters*, version 4, final version. Screenshot from final app. The 'LociOscope' instruction manual, 'LociOscope' device and introductory instructions.

Radio frequency tuning sounds were used to signify 'tuning-in' to the past. In early iterations these were edited to the beginning and ends of the soundscapes. Later versions included 'clouds' of static that could be encountered between the virtual locations, to enhance the sense of affecting the tuning by positioning the body in the optimum site. Dynamically responsive volume was linked to the participant's proximity to the static 'clouds'. As their proximity to the geographic position of the virtual location increased so did the volume, becoming quieter as they moved away. While this dynamic feature worked well with the static sounds of the radio tuning, testing demonstrated that its use with the location soundscapes conversely appeared contrived because noticeable changes in intensity affected all of the sounds. Key sounds of vehicles and narration became too dominant or too quiet.
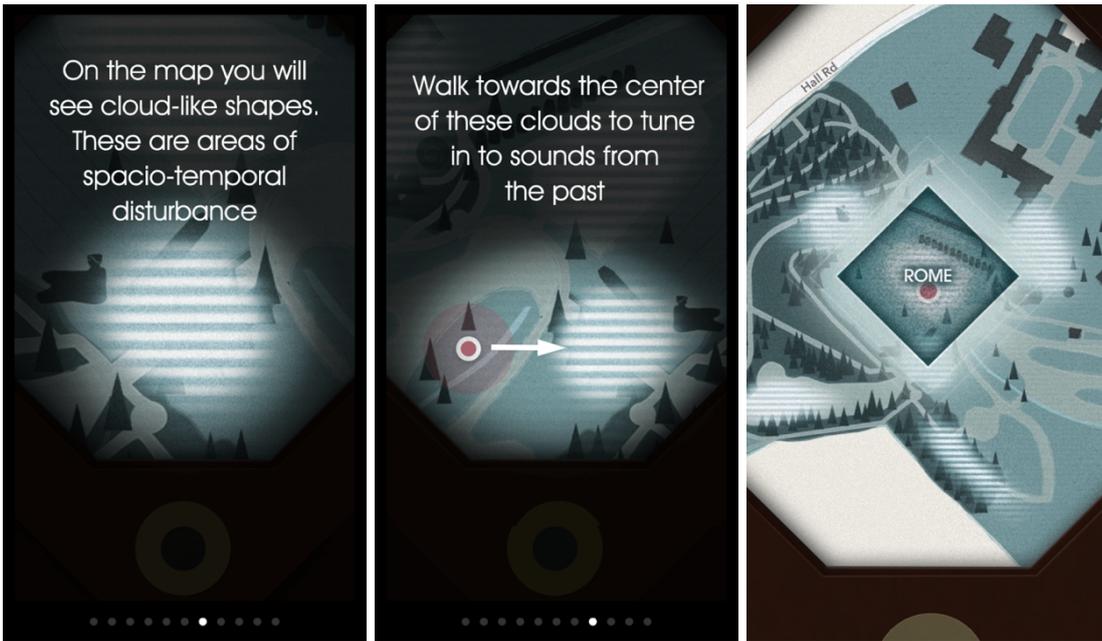
**Fig. 16** *The Letters*, version 4, final version. Screenshots from final app. Introductory instructions and a zone being activated by the participant.
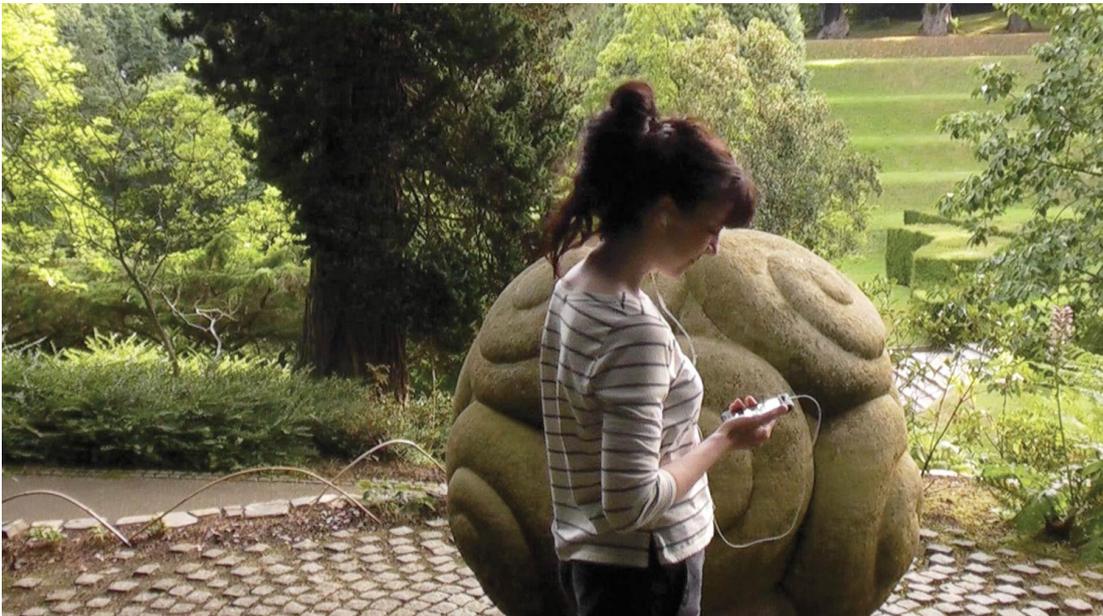


**Fig. 17** *The Letters*, version 4, final version. Participant using the published app.

**Summary and Jamesian relational analysis**

The LociOscope device manual displayed on the launch of the app was used to frame the narrative. It suggested how the participant should regard the experience and the imaginative stance towards the story (*relations to imagining*). The participant was now given a specific role that suggested how they should act (*relations to action*) and the nature of their supposition (*relations to imagining*) (*relations to belief*), as the protagonist, the operator of the LociOscope, behaving *as-if* they could tune into the past.

Initial versions of the introductory text were brief and deliberately ambiguous with the intention of prompting an exploratory mode of engagement. *Relations to rationality* were vague, whereas to encourage *relations to hypothesis* forming, greater volition was required for those unfamiliar with engaging with games or locative experiences in this manner. Greater amounts of background information and instructions were included in later iterations.[114]

See Appendix 1 for Figs. 10, 11 and 12 *The Letters,* for Dartington Hall Gardens, Version 4: LociOscope: Design tables.

**Developing the fifth prototype of 'LociOscope: The Letters' for Plymouth University Campus**

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[114] The instructions were too wordy for some and future updates will include incremental instructions as the participant operates the app to avoid the necessity of reading lots of text at the beginning with more detailed instructions available as optional windows that can be accessed via the map. Some participants also commented that they would like reminder instructions to appear at intervals rather than having to return to the manual.

What is the experience of '*LociOscope: The Letters'* app like when it is resituated in an urban location? The experience of the relations between recorded and ambient sounds differed when sited on the Plymouth University campus and city centre. Ambient sounds present in seven selected locations included traffic of varying intensities in relation to the proximity of main roads, crowd sounds, indistinct and distinct voices, low resonant hums issuing from external fans on buildings, occasional beeping sounds from reversing vehicles and the frequent cries of gulls. The represented locations that featured urban soundscapes of Rome and London seemed congruent in this setting, even though the engine sounds were clearly those of historic vehicles. The sounds of contemporary traffic appeared to add congruent spatial depth.



**Fig. 18** *The Letters,* re-sited at 'Plymouth University'. App concept trialled at university campus.

In contrast, soundscapes of rural landscapes that included woodland birds, insects, wind in trees, voices in open spaces such as, Yosemite National Park, San Franciscan Hills and Dartington, seemed artificial on the campus. Participants at Dartington frequently highlighted that recorded bird sounds were indistinct from those of existent birds. Although these same binaural recordings retained some of their spatial qualities, when heard on the university campus, they did not seem to issue from the surrounding environment and appeared artificial.

Different types of sounds were masked or emphasized by the ambient sounds within the campus location. The volume of soundscapes was increased inline with the ambient sound levels. Despite this adjustment, the voices of characters were frequently occluded by the voices of passers by or sudden activity, the wheeling of trolleys and chairs scrapping on concrete. In order to ensure that the recorded voices were sufficiently audible it was necessary to create a 'bubble' around the character's voices and fade the recorded soundscapes into the background, reducing their complexity. The presence of actual crowds supplemented the spatial qualities of the recorded crowd scenes enhancing their appearance as existent. The recorded sound of an approaching tram, when heard alongside a road appeared startlingly realistic. The low frequency hum and bodily resonance seemed to actually herald its arrival, despite its impossibility. The San Francisco Harbour soundscape was located next to a reservoir at the university, the soundscape was congruous in this environment. While visibly without boats or waves, the expanse of water seemed to act as a 'prop' for imagining, *as-if* boats would arrive. In contrast, when 'San Francisco Harbour' was located next to a small fountain in the Dartington Hall gardens, it was less suggestive, the watery connection more symbolic than conceivable, although in this context one participant

commented, "*Water dripping from the fountain added another layer of depth to the sounds.*"
After initial experimentation the fictional places were repositioned to further enhance and mitigate the affects the ambient sounds in the location. Locating the rural soundscapes near trees or in the garden, however, was not sufficient to mask or detract from the hum of ambient traffic and street sounds. While the urban soundscapes seem to perceptually and imaginatively mesh with the city setting, the rural soundscapes generally seemed contrived. The overall experience of *The Letters* at Plymouth University was more akin to listening to a radio play or music on headphones outside, the two experiences occurring in parallel. James (PP 1890a: 245) says meaning is not a static correspondence to but a context specific relation in experience.

See Appendix 1 for **Figs. 13., 14,** and **15.** *The Letters,* for Dartington Hall Gardens, Version 4 LociOscope: Design tables.

## Developing the sixth prototype of The Letters, 'LociOscope' for Plymouth City Museum and Art Gallery

Experimentation with re-situating of the *'LociOscope'* edition of *The Letters,* at Plymouth City Museum and Art Gallery offered opportunities to consider the narrative, sound and interaction experiences in an alternative setting, using indoor navigation techniques. The floor plan of the museum was used to create an onscreen map overlaid with the fictional locations. Each of the seven fictional places was assigned a room in the museum of which it had some loose thematic connections with. The maritime room was assigned to 'San Francisco Harbour', the natural history room to 'Yosemite', Rome to the neo classical entrance hall.

**Fig. 19** *'LociOscope' for* Plymouth City Museum and Art Gallery. Plan for app concept trialled at Plymouth City Museum and Art Gallery.

An indoor navigation system based was trialled[115] that was designed to trigger sound files in relation to participants' location within the museum, however, in practice, the Wi-Fi signals available were not of a sufficient strength to make this suitable in this building. As a result manual triggering of soundscapes was used to experiment with the listening experience. The variety and levels of low level sounds, such as, background music in the cafe, distant voices, heating systems and that of localized loud sounds, such as, visitor voices, sound effects within the museum displays made the soundscapes confusing. The spatial subtleties of the binaural sound also appeared less illusionistic, masked by the array of ambient sounds. However, the museum's 'soundscape' did offer a potential new medium for experimenting with shifting perception and creating narratives with the museum itself as a setting.

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[115] SenionLab navigation software was trialled that functioned by combining the coordinates of pre-mapped paths around the museum with positioning data derived by fingerprinting Wi-Fi signals in conjunction with the map and tagged sound files. Public Wi-Fi was not installed in the museum and signals coming from offices and neighbouring buildings were too low to trigger sounds reliably.

See Appendix 1. for **Figs: 16, 17, 19,** *The Letters,* for Plymouth City Museum and Art Gallery (test) version: Design Table

**Summary and Jamesian relational analysis**

Participants' interpretation of recorded sounds seemed to be affected by the environment they were heard within (*relations to the value of reality*) (relations *to context*). Binaural sounds that were thematically congruent within the listening environment were often considered to issue from the existent setting, whereas recorded sounds whose sources had been previously considered to be occurring in the rural environment appeared to be recorded in the urban location.

Turning the phone into a device for tuning into the past offered a rationale for drift (*relations to rationality*) and turned it in to a game mechanic (*relations to volition and action*). Limited dynamically responsive sound offered some sense of control over the tuning process (*relations to rationality*) (*relations to volition and action*).

Further experimentation with indoor navigation, integration of the museum's sonic qualities with the sound design and creating narrative framing and content that pertains more closely to museum, was explored in the following case studies.

# The Feel of Space

Imagine you are sitting on a swivel chair in a small narrow office: white walls, a desk, two laptops, and opposite you, filling one wall is a window. Through the branches of trees, the concrete surfaces of university buildings recede into the middle distance. A colleague hands you an Oculus Rift virtual reality headset. It resembles a scuba mask in black opaque plastic. You put it on.

The office has gone, replaced by a villa, albeit one with a 'Disney' aesthetic. Your hands, felt but invisible, fumble for the laptop's curser keys that pressing brings you closer to the wall with a jerk. You turn your head to the left and behind you see a staircase, to the right a fireplace. Ahead there's a window, poplar trees in a sunlit landscape with hills beyond. You look towards the open door. Let's go outside. You reach your hands into the extensive dimensions of the room to judge the distance. There is no *feel* of space – you touch into nothing. The paucity of the feedback heightens your body's inefficacy. Instinctively you stand up with the desire to 'match' the eye-distance with the body-distance. The cable pulls, restrained you sit down and meet the wave of nausea, filling movement's negation.

Encountering the representation of Tuscany, mediated via the Oculus, we experientially grope towards questions of definition, measuring the receding boundary of the perceptual real. Real/Reality/Imagined/Truth/Fiction

For James (PP 1890b: 145) space is sensational in character. We have a bodily sense of volume, of fullness, of the extent of warmth, he tells us. Except in the case of a recollection, space is immediately apprehended, whose shape is whole until attention is directed towards

it. Thoughts, in processes of discrimination, memory, association, imagination and time

succession (PP 1890b: 167) divide it into different degrees, of proximity, of depth, of size.

Larger extensive space is a construction, (PP 1890b: 183) – when we try to imagine the

distance between places, for example, from the Eiffel Tower to the Champs-Élysées. Thinking

does not add to the 'sense data' of space but just reconfigures it, James tells us (PP 1890b:

145).

# Chapter 4

## Expanded narrative, the metaphor of multi-stability and the multistability of perceiving and misperceiving

Metaphors make a comparison between unrelated ideas in order to say something that is common to both. They are at the intersection in acts of translation, declaring their hybridity and hiding their inadequacy. If the bridge they make has aesthetic value for us it seems to fit and feel right. This feeling of satisfaction allows us to segue to new ways of thinking, opens a window to a fictional place, now possibly existent.

In this chapter the theoretical underpinning of the perceptual aspect of the *metaphor multi-stability* is considered and its implications for expanded narrative and the design, development and interpretation of locative narratives. The ontological problem, 'how does the outside 'world' get inside the 'mind' and the epistemological problem, 'if perception is interpreted as 'faulty' how do we know what is real?', are considered in relation to the cognitive neuro-scientific term, perceptual multistability. Historically, illusions have been the basis of doubting our experience and the value of knowledge derived from it. The phenomena of illusions, hallucinations and misperceptions are discussed in relation to scientific naturalism and philosophical framings of neurophysiological processes that 'translate' the body's responses to perceptual stimuli into subjective awareness.

This chapter goes on to look at how our relations to perceptual and imaginary objects can be affected by ambiguous objects, verbal suggestion, misdirection and environmental conditions. The role of language in framing of subjective and objective perception is considered in the

context of James' argument of the "typical attitude" (James PP 1980b: 240) and Wittgenstein's

argument for the rejection of private objects and his explanation of 'seeing-as' (Wittgenstein

2009 [1958]: xi. 137). A further comparison is drawn between James' argument for direct

perception and intentionality and that of John Searle (2015: 23). These debates are examined

in relation to classical and analytical pragmatism that demonstrate, I argue, the pertinence of

James' writings in the contemporary context. James' classical pragmatist method poses the

question, what are the consequences that follow from believing that an idea is true? I argue,

that drawing upon scientific research on perception can usefully inform the hypotheses

forming and speculative strategies for designing locative narrative to prompt perceptual

ambiguity. Results are measured in terms of their specifiable practical consequences, *in*

*particular circumstances*, that in turn leads us to further experimentation.

I argue, that the *metaphor of multi-stability* is at the intersection between 'ways of seeing' and

talking. Building on strategies to create the affect of multi-stability developed in the first

locative narrative case study, *LociOscope, The Letters,* the second, *The Lost Index, No.2*

*Landscape with Figures,* is discussed at the end of this chapter together with a relational

analysis of experience.

The scientific term multistability is used to describe the different subjective perceptions of the

same stimuli.

> "Multistability occurs when a single physical stimulus produces
> alternations between different subjective percepts…The key features of
> multistability are: (i) stimuli have more than one plausible perceptual
> organization; (ii) these organizations are not compatible with each
> other. We argue here that most if not all cases of multistability are
> based on competition in selecting and binding stimulus information.
> Binding refers to the process whereby the different attributes of objects

> in the environment, as represented in the sensory array, are bound together within our perceptual systems, to provide a coherent interpretation of the world around us." (Schwartz, et al. 2012: 896)

Jean-Luc Schwartz, et al (2012: 896) differentiates between multistability as a description of *what* is happening for the perceiver, with that of the descriptions of neural mechanisms that describe *how* perceptual organisation happens. While the questions are different in principle, intention and attention may indicate when switching occurs between percepts and may also reveal the neural mechanisms of switching. Denham and Winkler (2012: 79) describe that in response to incoming stimuli, neuronal[116] patterns are formed over time that enable predictions to be made about that incoming information. Neuronal patterns compete with one another and two cannot be held concurrently, resulting in a switching between two alternatives. They argue that perception is not necessarily a stable state. In auditory streaming experiments when listening to sequences of pure tones, participants also experience switching between interpretations, analogous with the experience of ambiguous figures such as the Necker cube or Rubin vase.

> "...one should consider sound organization in the brain in terms of the continuous discovery of proto-objects (alternative groupings) and ongoing competition between them." (Denham & Winkler 2015: 601)

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[116] Stimuli received by sensory receptors as light, or the movement of air particles, are converted into short electrical pluses or neuronal firings as an electrical signal to the brain. These electrical pulses, pass into nerve cells (neurons) that are surrounded by and contain ions, electrically charged molecules. The voltage of internal and external ions is polarized. Stimulation of a nearby neuron changes the external charge and causes an exchange of ions with those inside the cell, resulting in possible outcomes: action potential, inhibitors of neural transmitters, enzyme activity or muscle contractions. In turn, this neuron interacts across the synapse with other cells, binding or not, with the receptors of other cells. Patterns of neurons, determined by the size of the neuron and the number and duration between firings carry particular information. Different types of neurotransmitters carry interacting patterns of neurons that coalesce in specific regions across the brain (Moore 2012: 38) (Society of Neuroscience 2012: 9).

Denham & Winkler's analysis draws upon the framework of Bregman's (1994 [1990]) *auditory scene analysis* that posits that the auditory system segregates features of sound and creates and compares schema or 'mental representations' (below the level of awareness) over time.

The use of the term multistability in cognitive neuroscience is used to describe the *what* and the *how*, using Schwartz, et al's expression – the link between behaviour exhibited in subjective perception and that of competition between patterns of neuronal firings. Experimentally they seem to be related but the evidence is not yet conclusive (Schwartz, et al. 2012). Even when/if the value of explanatory satisfaction attributed to the link between the *what* and the *how* occurs, there are still questions of the translation between vocabularies on one hand and the framing of perception on the other. Contemporary pragmatists and philosophers of mind express varying positions on the function of representation in perception at different levels of cognitive awareness, and also the extent to which intentionality is derivative of linguistic norms.

**Objective and subjective perception – are there relations between causes and interpretation?**

Psychophysics[117] describes sound as beginning with a vibrating object that changes the pressure in the medium surrounding it over time. The molecules in the medium compress and

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[117] Psychophysics is the empirical study of the relations between a perceptual stimulus and the perceptual response. Psychoacoustics of hearing examines the relationships between the physical characteristics of sound and its perception and interpretation by listeners (Begault 1997: xii).

stretch against each other causing a mechanical, longitudinal wave of particles moving in

sequence. The movement of particles moves through the ear before entering the cochlea. Hair

cells on the basilar membrane stimulate the auditory nerve that has around 30,000 neurons

taking information to the central nervous system (Moore 2012: 38). We have no phenomenal

*sense* of sounds as waves. Introspection has little application in determining the contents of

audition[118].

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The auditory perception of the position of sound in the environment involves the perception of sound localization cues, the Interaural Time Delay (ITD) and the Interaural Level Delay (ILD). The ITD applies to lower frequency sounds that bend around the head causing diffraction of sound and a time difference between the arrival at the sound at one ear and the arrival at the sound at another ear (<~ 1500hz for a head circumference of 21cm). The ILD applies to higher frequency sounds that have a smaller wavelength (above 1800hz) where the listener's head causes a shadow resulting in a difference in decibel levels in each ear. This also applies to lower frequency sounds heard at close proximity. The localization cues allow for the perception of the sound's positioning along the horizontal plane (azimuth). The morphology of the listener, the shape of the pinnae, (outer ear), their head, hair and body affects the time at which the sound reaches each ear. Distance from the sound source can reduce perception of ILD, making localization determined by level difference harder to perceive at greater distances. Each pinnae filters the sound and the same sound presents differently to each ear in relation to the angle of the head. This contributes to the perception of elevation and helps the listener to determine whether the sound is located in front or behind them (Moore 2012: 251) (Begault 1994:42). The head also causes 'blind spots' in the perception of the source location, known as 'the cone of confusion' (Moore 2012: 262). Head movements can mitigate this effect and help to establish the perception of the sound source on the vertical plane. Moore suggests that the pinnae themselves modify the spectral cues and are important for clarifying positioning on the vertical plane

[118] Binaural recording techniques can mimic these cues by using a dummy head with replica ears or in-ear binaural mics worn by the sound recordist. The head-related-transfer-function (HRTF) gives a measurement of the *"spectral filtering of the sound source before it reaches the ear drum"* (Begault 1994:52) produced by the pinnae. The HRTF is unique for each listener and as a result averaged HRTF used in postproduction processing of mono recordings can only be approximate for the individual listener. The spectral filtering that is encoded in recordings made with in-ear binaural mics is specific to the recordist's pinnae and morphology and therefore this can (to some degree) affect the perception of elevation and frontal and backward planes (Begault 1994:53) (Nicol 2010: 20) for other listeners.

Psychoacoustics of hearing examines the relationships between the physical characteristics of sound and its perception and interpretation by listeners (Begault 1997: xii). The auditory perception of the position of sound in the environment involves the perception of sound localization cues, the Interaural Time Delay (ITD) and the Interaural Level Delay (ILD). The ITD applies to lower frequency sounds that bend around the head causing diffraction of sound and a time difference between the arrival at the sound at one ear and the arrival at the sound at another ear (<~ 1500hz for a head circumference of 21cm). The ILD applies to higher frequency sounds that have a smaller wavelength (above 1800hz) where the listener's head causes a shadow resulting in a difference in decibel levels in each ear. This also applies to lower frequency sounds heard at close proximity.

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Perception in complex environments is the norm and our experience of the world is predominately coherent. Stein and Meredith (1993: 124-136) claim that integration of sensory modalities is a feature of perception exhibited across species, behaviourally and neurologically, both structurally and at the level of the single neuron. Multisensory neurons synthesize stimuli across sensory modalities. Types of sensory stimuli differ in terms of their saliency in a given situation (Stein & Meredith 1993: 123). In a complex environment what determines which stimuli are most likely to result in the particular instance of neuronal integration, at a given time and context, is their causal, proximal and temporal relations, rather than because certain types of stimuli, such as vision are prioritized by the sensory systems. Sounds, for example, that seem to be located in space together with a related visual correlate, are more likely to be synthesized in perception. Stein and Meredith draw this conclusion based on the measurement of enhanced or depressed neuronal response to stimuli.

Shams & Kim (2010: 269) consider that multimodal integration occurs across perceptual domains and also that the privileging of one sensory stimuli over another may be an explanation for experiences of misperception.  This is given as an explanation for the 'McGurk Effect' (McGurk & MacDonald 1976).[119] Stimuli from different modalities can be integrated,

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elevation and helps the listener to determine whether the sound is located in front or behind them (Moore 2012: 251) (Begault 1994:42). The head also causes 'blind spots' in the perception of the source location, known as 'the cone of confusion' (Moore 2012: 262). Head movements can mitigate this effect and help to establish the perception of the sound source on the vertical plane.  Moore suggests that the pinnae themselves modify the spectral cues and are important for clarifying positioning on the vertical plane.[118]

[119] McGurk & MacDonald's (1976) experiments showed that participants watching a video of mouthing lips synced with the sound of a similar word with a different phoneme (ba & ga) led to many of participants hearing a combination of the two words (da), known as the McGurk Effect, where with visual cues 'dominate' auditory cues. There are a number of individual, linguistic and environmental factors that affect cross-modal interpretation of stimuli, this repeatable phenomenon points towards the instability of perception. The ventriloquism effect also

partially integrated or segregated, according to the congruence between the stimuli. This is predicated upon the notion of '*inference'* where the nervous system infers the likelihood of stimuli to belong to the same perception (Körding et al 2007: 1).

J. J. Gibson argues that perception or "information pickup", requires perceptual systems, by which he refers to activities of "…looking, listening, touching, tasting, or sniffing…", situated in the environment. The function of the perceptual system is to "…orientate to the environment to "investigate, adjust, optimize, resonate, extract and to come to an equilibrium", rather than individuated senses producing particular sensory experience (1986: 244). Gibson (1986: 142) suggests that illusions experienced in the environment are the result of misperceptions, such as not noticing the door that's made of glass when we attempt to go outside. For Gibson, these types of misperceptions are of a different order to those of pictorial illusions, on three counts:

- "*Aperture vision",* pictures are viewed in a particular way;
- Looking at 2D pictures is not how we perceive the environment (pictures have two types of surfaces those of the paper and those depicted)
- Pictorial depictions can contain impossibilities "*ecological contradiction"*, that do not occur in the environment

When James writes that "there is no intervening mental image" (ERE 1912: 12), he is positing that there are no mental 'pictures' between objects and perception. This presents one take on direct realism. In, *An Ecological Approach to Visual Perception,* Gibson (1986 [1977]: 244)*,*

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illustrates that if our attention is sufficiently focused on the dummy we perceive it to be speaking, rather than the performer.

argues that perception occurs in an animal acting in its surrounding environment. It's body, head, eyes adjusting as part of the perceptual system that directly perceives invariants and affordances in the environment. Alva Noë (2012: 123) defends Gibson's position concerning the role of action in perception against those who argue that perception is first a matter of categorization and then a matter of what the properties an object affords. He states that categories and qualities are implicit in direct perception through the understanding we bring to it. Contemporary pragmatists express varying positions on the function of representation in perception at different levels of cognitive awareness, and the extent to which intentionality is derivative of linguistic norms.

In Descartes' *Meditations on First Philosophy* ([1641] 2008: AT 1: 19) the narrator starts from a position of doubt: Am I dreaming? In the distance the tower is certainly round but approaching he sees that it is square. A piece of wax held in the hand has definite qualities, yet next to the fire its shape and fragrance are altered. How can we trust our senses when things have different 'modes' of appearing? ([1641] 2008: AT 2: 32) Immediately felt sensations, he states, cause nerves to travel through the body to the brain that are represented as 'ideas' to the mind. While we believe our ideas correspond to the world they are often in error. Whereas the intellect apprehends ideas, such as mathematics and geometry as true, independent of the thinker. Descartes concludes that the mind is of a distinctly different nature to the body.

From Descartes' dualism is the view that our perceptions are representative and misrepresentive of the world, and that the content of hallucinations, and that of veridical perception, is a mind-dependent, subjective experience of reality. These positions, often

categorized as 'The Argument from Illusion', rest upon, A. D. Smith (2002: 16) argues, an erroneous identity claim – that the content of perception and the content of subjective experience are identical. Existent objects are not literally what is in our head, and empirical science has framed the 'transformation' from sensory stimuli to perception in varying forms of intervening representations, consistent with the Cartesian dualist 'idea', or the later Russellian 'sense data' (Russell 1910: 181).

## Perception and scientific naturalism

Denham and Winkler's (2015: 601) cognitive neuroscience account of auditory perception differentiates between the brain's tracking of sound features and the recognition of patterns, from interpretation and meaning. The temporally happening environmental context provides a constraint for predicting the likely source of the sound. For the sources of sounds to be identified, analysis over time is required. Hearing the clock strike three requires the recognition of a sequence. Associations are formed between incoming sounds and the persistent "mental representations" (memories) of those sounds just past. The composite pressure waves in the ear are grouped into features, in order that they can be interpreted, in a process that Bregman (1994: 11, 33) characterizes as *auditory scene analysis.* For interpretation to be timely, Denham and Winkler suggest that "perceptual representations" should be predictive and flexible. Two types of representations can be identified in their account, current "mental representations" of auditory features and those of existing "schema" – patterns of features associated with types of sound sources within long-term memories. However, they (2012: 79) argue that perception is not necessarily a stable state. In auditory streaming experiments switching between interpretations can occur when listening to

sequences of pure tones. This phenomenon known as multistability, whose function is posited to be for flexible responsiveness to changing environmental conditions.

Discrimination, reflex actions and for the most part the physical functioning of our body occurs below our level of awareness. When we are awake, there are simultaneously cognitive functions that we are aware of and those that we are not. Uriah Kreigel (2014: 166) says that the naturalistic account of perception describes brain functions that "track" the environment. Kreigel describes this information is taken to be objective and identical with the content of mental states. Kreigel's 'Adverbial' challenge to this account says that we can conceive of the case where we have 'apple-ish' experiences, such as experiencing the taste of an apple, without the perceptual experience of apple-like properties (no apple present). A brain-in-the-vat, hypothetically, has experiences of an apple identical to that of a person tasting an apple, without the apple's objective presence – The 'tracking' account of intentionality does not capture the situations in which subjective experiences are intentionally directed towards content, they represent apple-ish features but they do not 'track' the environmental presence of apples. Kreigel cites Putnam's (1975) essay, 'The Meaning of "Meaning"', that argues that internal tracking states are second-order representations of first order objective representations of things in the world, therefore subjective states only track the states of the first order representations of the environment. Kreigel (2014: 18) suggests that a non-reductive account of intentionality understands *objective representation* – 'tracking' and *subjective representation* – phenomenal appearances, as different sorts of representation.

Neuroscientist Andy Clark's connectionist approach takes a physicalist stance that acknowledges the role of the environment in perception, while rejecting non-

representationalism. He (2003:8) argues that although some actions and perceptions could be 'neuronally wired' for "simple automatic routines" in response to environmental invariants, such as in Marr's (1982: 32-33) example of the possibility of a fly's wings automatically flapping as its feet loose contact with the ground, they cannot account for abstract and imaginary mental images. Clark argues that it is hard to see how this model for non-representation, where all operations are ecologically triggered, could be scaled up to account for human brain functions.

Connectionism (2003:5-6), for Clark, like Turing's (1950: 433)[120] approach, describes a skill-based model of reason that operates in an abstract space, using logical structures to combine symbols to produce 'mechanical' reason. Association of ideas takes place through the recombining of symbols determined by the rules of the structure, without any particular sense attributed to the individual symbols. Rational thought is mechanically possible through various types of 'inference' that consist of inputs that are broadly sensory perceptions and outputs that are broadly motor. The difference between the approaches, Clark argues, is that the Turing-Fodor classical model of reason is based upon "symbol-guided state transitions" that operate within a "sequential quasi-linguistic system", whereas from a connectionist perspective the brain is understood and reason is framed as a "*prototype-style knowledge guiding vector-to-vector transformations*" (Clark 2003: 8). Both models see rational thought

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[120] Influenced by the formalist programme of mathematics, information processing and computational, analogies for the brain have been used as metaphors and also as models for brain functioning and cognition. Turing (1950) describes the premise of a machine that can potentially be mistaken for a human intelligence. A pre-programmed device operates systematically. It receives an input signal, such as light switched on or the engagement of a cog. The input results in a particular state – 'cog engaged'. This state produces a predetermined output, actions or further states, according to its "rule book", or system. "*The internal state at any moment is determined by the last state and input signal.*" (1950: 7).

and actions as based upon the brain and perceptual system's ability to represent the relevant current state and perform operations that relate non-semantic elements to internal representations, resulting in further representations and actions.

> "One important source of the difference lies in the way the connectionist system typically acquires the connection weights that act both as knowledge-store and processing-engine. Such weightings are *acquired* by exposing the system to a wide range of exemplars (training instances)" (Clark 2003: 7)

Clark (2003: 18) argues that emotional responses also contribute to rational thought, based on accumulated knowledge of "choosing and acting". Connectionism puts forward "quick and dirty heuristics based on "prototype reasoning" with a second level "connectivity-pattern search" to address global knowledge searches and the problem of abductive reasoning – finding the best possible explanation that makes sense in the situation. The advantage Clark (2003:14) says is that abductive reasoning may require knowledge that is hidden anywhere in system and not just that which is linked by syntax.

**Experience of perception**

The movement between perceptions and thoughts can be affected by our habits, preconceptions, misjudgements, emotions, environmental conditions and misperceptions. James says our perception "is of definite and probable things" (1890b: 82), that rectangular tables "present" "two obtuse angles" that are foreshortened and circular rugs as "ellipses", yet we *see* these shapes in their "*normal position*" (1890b: 239). Of the many ways that a table can present we see the table as the same object.

He argues we learn to what "optical 'reality'" (PP 1890b: 240) the oblique presentation of the table is. The law of economy means that we attend to the "sign" that is fixed, as table, and not to the multiple changeable ways in which it presents itself. There is a difference between the optical presentation and seeing the "sign". If there are strong relations between a sense perception and an association such as familiar faces, places and objects then these are recognised and named straight away, James says. Those sense perceptions that are ambiguous, that vacillate between one thing and another, can only be described as the "PROBABLE" (1890b: 82) thing that most usually gives us that sensation.

Our immediate experience of the world is one that appears 'fully rendered', and within an expected range, accessible to us. Kevin O'Regan & Alva Noë[121] (2002: 567) and Noë & Evan Thompson (2004: 5) question whether sensory stimulation and neural activity is sufficient to give rise to perception and put forward a sensor-motor approach that describes vision as an

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[121] Shapiro's (2011) literature review of embodied cognition argues that classical cognitive psychology already acknowledges the role of body in perception and cognition, as the sensory input that results in symbolically encoded output. Embodied cognition, he suggests challenges the existing computational models by re-examining the intra and inter relationships of cognition, the body and the environment. The field of embodied cognition Shapiro argues is characterised by three approaches, 'conceptualization', 'replacement' and 'constitution'. Proponents of 'conceptualization', he argues, see embodied cognition as constrained and defined by the limits of the perceiver's body. 'Replacement' refers to approaches that frame the mind-body-environment as a dynamic system of relationships, substituting the classical computational cognitive model of the brain. J.J. Gibson's (1979) ecological approach to vision is attributed as a forerunner this position, positing causal relationships between perception, bodily movement and cognition. The third conception of embodied cognition is the 'constitution' thesis that develops the existing computational model to argue that cognition extends beyond the brain and into the body as 'extensions of mind', as put forward by proponents such as Andy Clark (1997, 2008).

Neuroscience research (Rizzolatti & Craighero 2004), (Clark 1997), (Barsalou 2009) (Gazzola & Keysers 2008) has been used to support the conceptualization and constitution positions of embodied cognition. Voluntary action, prior to performance by the body, occurs through the representation of motor and perceptual processes in neural structures (Decety & Stevens 2009:3). Neuronal imaging has shown that when thinking about a movement, patterns of neurons fire in areas of the brain associated with imagining the movement and also in areas of the brain associated with the performance of the motor action (Decety & Stevens 2009) (Decety et al 1994) (Rizzolatti et al 1992). These findings *suggest* that physical movement and thinking about physical movement have neurological correlates. This has particular relevance to the discussion of simulation, movement and the imaginary experience within virtual spaces.

exploratory process occurring within the environment. The mistaking of a virtual environment for the existent world is difficult to achieve, arguably not just because of current technical limitations but our perception is predicated upon establishing patterns and differences; as Gibson (1986 [1977]: 205) [122] describes, we perceive invariants in our environment.

As Noë (2004: 49) notes, our field of vision is narrow and blurred at the edges. Turning our head moves this focused vision, enabling us to see (and hear) more, giving the impression of continuity. While these phenomena have been used to support the sceptical argument that our world is a 'Grand Illusion',[123] an illusionary product of the brain, Noë (2009: 141) (2012: 18, 29) refutes this in an opposite move, saying what makes the world seem available is having *access* to it. Perception is a matter of access. Static vision is limited and partial but the movement of our eyes increases access, as does our head and body. Noë argues that our susceptibility to illusions does not necessitate that there are perceptual 'sense data', that are in turn faulty, or that our perception is fundamentally illusionary, but that they reveal "our context-bound performance limitations" (2009: 142). "Perceptual consciousness" for Noë (2012: 24) is "relational"; it is a type of intentional directness towards objects. Despite this selectivity there is redundancy in perception. Sensory integration and amodal functioning place us in a perceptual system operating in the environment (Gibson 1986 [1977]): 205). Covering an eye will provide a certain degree of depth perception and of sound localization is still possible while covering one ear.

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[122] J.J. Gibson, *The Ecological Approach to Visual Perception*. Hove: Taylor & Frances, 1986 [1977], p. 205.

[123] The term Grand Illusion was coined by Noë, Thompson and Pessoa in 2002
Noë (2002) 'Is the World a Grand Illusion'. *Journal of Consciousness Studies*, 9, No. 5–6, 2002, pp. 1–12

**Attention**[124]

The effects of attention are to allow us to "perceive", "conceive", "distinguish", "remember", "shorten reaction time" and "analyse and relate to things", James (PP 1890a: 425-426) summarises. Attention creates a context for our thoughts and our perception of objects is affected by what we attend to. If an object is not attended to it in can be in the perceptual field without us necessarily having an awareness of its presence.

> *"My experience is what I agree to attend to. Only those items which I notice shape my mind without selective interest, experience is an utter chaos. Interest alone gives accent and* emphasis, light and shade, background and foreground intelligible perspective, in a word." (PP 1890a: 402)

Citing Helmholtz's (1925 [1867]: 32) experiments in retinal rivalry, James (PP 1890a: 421) argues that one image is usually attended to first then the other, unless a specific task is assigned such as counting or observing particular features that engage attention in both simultaneously.

We know, contrary to appearances, that our sensory perception is selective. Our attention focused on an announcement in a train station is heard, but that the conversation occurring simultaneously next to us is not. Colin Cherry's (1953) study of selective attention describes the "cocktail party problem" – our ability to identify our friend's voice on the other side of a noisy room. Studies in change and inattention blindness demonstrate that we fail to perceive

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[124] "Every one knows what attention is. It is the taking possession by the mind, in clear and vivid form, of one out of what seem several simultaneously possible objects or trains of thought. Focalization, concentration, of consciousness are of its essence. It implies withdrawal from some things in order to deal effectively with others, and is a condition which has a real opposite in the confused, dazed, scatterbrained state which in French is called distraction, and Zerstreutheit in German." (PP James 1890a: 403-404)

those things before our eyes that our attention is not focused upon. Simons & Chabris' (1999: 1059) study of participants counting basketball scores failed to notice the individual in gorilla suit wandering onto the court!

James (1890b: 185-186) argues that by moving our attention objects come onto view that are *fringed* with other objects that are just out of sight.

> "...these constant changes every field of seen things comes at last to be thought of as always having a fringe of *other things possible to be seen* spreading in all directions round about it." (1890b: 186)

For James (1890b: 311), reality is a belief that is relative to particular circumstances. What is taken as real depends upon our relations to that object and their particulars: our attention to the object, it's vividness, the sensations and emotions we connect to it, it congruence with the system of objects and relations.

**Suggestion**

James (1890a: 434) differentiates between "sensorial attention", the directing of the sensory organs "whether immediate and reflex, or derived" and "intellectual attention" "attention to the idea of a sensible object" that involves sensorial attention and both these processes are "coexist" in all attentional acts, directed at concrete objects.

Hearing footsteps and a door closing can provide *sufficient information* to give us the impression that someone has entered the room, although until we turn around and verify this assumption it remains just that. The potential of focused attention and suggestion to prime

the listener for perceiving have long been known but were laterally formalised in 1855 in psychophysical research conducted by the Scottish surgeon, James Braid (Kilstrom, 2012: 21-22). William James' own experimental psychological research described in *The Principles of Psychology* (PP 1890: 600) observed that hypnotism involved focused attention coupled with the disassociation of background ideas. Recent neuroscience research suggests a similar interpretation. David Spiegel (2012: 81) defines hypnosis as "…a state of highly focused attention coupled with reduced peripheral awareness."

While evidence for the functional brain basis of a distinctive hypnotic 'state' is debated, the attention focusing techniques of hypnotic induction, followed by visual or aural suggestion claims have been made that there is a "…a top-down resetting of perceptual response…"(Hoeft, et al.: 2012, p.1064) that can affect visual (Muller et al. 2012: 164-9) auditory, somatosensory and pain perception, in some in highly hypnotizable individuals.[125] With or without a formal hypnotic induction, narrative can become an evocative imaginative stimulus for directing thoughts, characterised as being "transported" to narrative worlds, as Richard Gerrig's (1993: 5) metaphor expresses in his psychological study of reading.

## Wittgenstein and 'seeing-as'

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[125] Hypnotic suggestion has been interpreted as affecting attention and altering visual, auditory, somatosensory and pain perception (Spiegel 2008:185). The 'Stoop Effect' was reduced in some participants who had undergone experiments using hypnotic suggestion (Raz et al 2002: 1155). In recent fMRI studies (Müller et al 2012: 164) describe increased activation of neuronal motor imagery in participants during hypnotic suggestion. If perception can be affected through focused attention and suggestion, narrative experiences can potentially affect the phenomenal experience of represented and imagined locations.

Taking the "'organisation' of a visual impression" to be at the same "level" as *seeing* colours and shapes is taking the visual impression to be an object and one which is unstable, "a strangely vacillating object", says Wittgenstein (2009: xi. 137). While James argues that do not know to what degree concepts affect perception and to what extent perceptions affect concepts.

> "The universal and the particular parts of the experience are literally immersed in each other, and both are indispensable." (James SPP 1911: 107)

But where does interpretation begin and end? There is no strict division between physical seeing as objective and interpretation as subjective. Both framings are part of a 'language-game'. Wittgenstein's point is proceeded by James (PP 1890a: 443), who says we only see what we "*preperceive".* Using the illustration of the exercise played in "kindergarten instruction", James describes that the children look at an object, a "stuffed bird", for example, and call out all the names of parts of the bird they have already learnt terms for. It may take them along time to notice those things for which they don't have names but once they have learnt the words 'claws' and 'scales' they will readily recognize them as part of the bird in the future. *"Every perception is an acquired perception"* (James PP 1890b: 78).

## Attitude

James (PP 1890a 286) suggests that objects are represented to our self as a "typical attitude". When we describe a brick as being darker or smoother in this light than another, we have in mind an ideal brick about which we make the judgement.

"The selection of the several normal appearances from out of the jungle of our optical experiences, to serve as the real sights of which we shall think, is psychologically a parallel phenomenon to the habit of thinking in words, and has a like use. Both are substitutions of terms few and fixed for terms manifold and vague." (James PP 1980b: 240)

Wittgenstein argues, if we see an ambiguous duck-rabbit figure as a rabbit, we can reproduce colours and shapes in a drawing and say *this* is what we see. We can also point to other pictures of rabbits and say this also what we see. There is a comparison between the concepts of the visual contents and what we interpret them to be. "'Seeing-as…' is not part of the perception", it is additional; "…it is like seeing and not like seeing" (Wittgenstein 2009: xi. 137). Perceiving a representation of a fictional place *as* existent is 'continuous seeing'. If verisimilitude is disrupted, a different aspect "lights up" and the representation is seen differently.

The situation is often reversed in the experience of many forms of narrative. The participant begins from the position of 'seeing-as', they know the experience is mediated. Arguably in a process of becoming engaged in the narrative 'seeing-as' becomes the continuous seeing of an aspect. For James and Wittgenstein, sensation and perception are mediated below the level of awareness, "seeing-as", is an addition layer of interpretation.

**Framing subjective and objective perception**

The tone of voice or gesture can indicate an object *"becoming"* (Wittgenstein 2009: xi. 209) an aspect of appearing, "as if" the object had changed, 'Ah! I see the rabbit now'. We suddenly see

an object as a certain aspect, where the idea comes "into contact" and remains for "some time" with the "visual impression" (2009: xi. 211).

> "...it is as if an *idea* came into contact, and for some time remained in contact, with the visual impression." (Wittgenstein 2009: xi. 211)

Wittgenstein (2009: xi. 214-19) urges us to reject our report of "*this*", as our "private object". Perception, he says, is constantly changing but we do not remember our experience in this way. How can a "conceptual boundary" be drawn between different perceived aspects of *seeing* a triangle as an arrow, a kite or a sail? How can the word "*felt"* mean an atmosphere sensed or a material handled?

> "One *kind* of aspect might be called 'organisational aspects'. When the aspect changes, parts of the picture belong together which before they did not." (Wittgenstein 2009: xi. 221)

When we see a different aspect of an image, its different parts "belong together"[126] (Wittgenstein 2009: xi. 221) in a way that they did not before, as when we see the duck picture as a rabbit picture, the back of the duck's head becomes the rabbit's mouth. But in order to see the image as a duck or a rabbit, Wittgenstein (2009: xi. 222) argues we first need those concepts. Having certain concepts such as duck or rabbit make the individual capable of "doing" (Wittgenstein 2009: xi. 223) something, to report their experience *as.* This type of concept is different from that of toothache that does not require that we can do something, he claims. We can comprehend a picture of an animal as having a certain posture (Wittgenstein 2009: xi. 225) without having learned a specific concept to describe it. The comprehension is itself part of a language-game, it is not a private language of recognition. Seeing ambiguous

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figures *as* depicting things in different ways is a conceptual rather a causal problem (2009: xi. 183).

Ned Block (2003: 6) (2010: 41) argues that there is more to subjective experience than the representational content of direct awareness and on these grounds he critiques both direct and indirect perception. He questions whether all subjective experience is solely *constituted* by direct perceptual content. He argues that some indeterminacy in perceptual content can be explained in terms of representational content but those changes need not "correspond with the phenomenal experience or qualia." (2010: 24) Block draws his conclusions from empirical experimental evidence; we can stare with fixed eyes at an object but move our attention around and experience different phenomenal properties, changes in the object's size, shape, intensity and viewpoint, or hear the same sound in different contexts and perceive it to have varying intensities, depending upon where attention is focused, but that these changes do not seem to be "*in the world*" (Block 2010: 53). Block notes that James (PP 1890a: 426) makes a related observation, our feeling of attention may change but it doesn't affect that we "perceive and conceive the object as the same".

Block argues that "representational content" is vague in order to cope with "shifting attention" (2010: 55-56) while the subjective experience, qualia – "mental paint" – generally appears non-illusionary, vivid, and timely. Block (2003: 167) argues against the strictly functionalist view, putting that because stimuli "*cause*" a perceptual experience that does not mean stimuli "*constitute*" perceptual experience (2003: 23). He argues that perception presents qualities not concepts of qualities, qualia are not intentional, functional or only thoughts; although linguistic philosophers may argue that you cannot separate even the

phenomenal feeling from public objects. Wittgenstein (2009 [1958] viii. 57) suggests, that even if we don't know the name of a feeling we use normative terms to describe it. In Hilary Putnam's (2013: 201) recent view he dismisses his earlier linguistic rejection of qualia, agreeing with Block's naturalist case for private subjective experiences, defining qualia as "non-conceptual internal states" supported by the experimental evidence.

A bush can change its shape in the wind but we do not specifically label its different shapes, although we perceptually register them. Are there phenomenal properties of these different shapes? Is the subjective experience tied to reflexive awareness? Does perceptual content that we have no subjective awareness of, such as in cases of change blindness, have a phenomenal character?

## Searle's account of direct perception and intentionality

For John R. Searle (2015: 23) 'The Argument from Illusion' and 'The Argument from Science' rest on the same fallacy, that both veridical experience and hallucination have a common element – an identical subjective experience, awareness of "*something*".[127] While in the case of the hallucination awareness is of a mental object, the erroneous conclusion is drawn that both veridical perception and hallucinations are representations, 'ideas' or 'sense-data'. On these accounts perceptual experience is taken to be a subjective experience of reality resulting in the question, 'how it is possible for objective facts to be known?' potentially leading to sceptical conclusions.  Searle's alternative view suggests that objects cause

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[127] What Searle refers to as "the Bad Argument in the history of Western epistemology" (2015: 23)

perceptual experiences and their subjective intentional content. Perceptual experiences are therefore "casually self-reflexive" (Searle 2015: 5, 22), allowing for a naturalistic account of perceptual processes that involve *representation* between the brain's objective tracking of the environment and subjective reporting on the experience.

Searle (2015: 76) rejects that the term 'qualia' is required on the grounds that all conscious experience is qualitative. He characterizes perception as both unconscious and conscious subjective intentional experience, distinguishing between ontological objectivity – those things that exist, such as mountains and tables and ontological subjectivity, and those things that only exist for the animal, such as pains or feelings (Searle 2015: 14). In doing so he classifies epistemological objectivity as knowledge claims that can be verified and epistemological subjectivity as those that are a matter of opinion. He (2015: 14) argues that intentionality is central to an account of perception but rejects that this should be framed as the brain *representing* physical objects, rather, for Searle, perception is a direct presentation.

Searle's (2015: 24) remedy is the specification of what is meant by *awareness*. Perception involves the *objective awareness* of an object, a pen, and the reporting on the experience – the *subjective awareness* of how the pen looks or feels. The first is an intentional relation between the perceiver and the object – the table whose existence *causes* the "conditions of satisfaction" of the perception.[128] The second is a subjective experience of feeling the table, an awareness of "identity"[129] or reflexive awareness of the experience. In the case of veridical perception,

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[128] For Searle (2015: 5, 41) Perceptual experiences "require reference to the experience itself`" – they are "casually self reflexive." "Perceptual experiences are direct presentations of their conditions of satisfaction, and they are experienced as caused by their conditions of satisfaction."

[129] Searle is using identity in the sense that the object and the sensation are taken to be the same. (2015: 24)

the object and the sensation of the object are identical. In the case of a hallucination, the subjective experience has intentional *content* but it does not have an intentional *object* (Searle 2015: 25).

Searle (2015: 74, 90) takes "all perception" to be *a presentation* of a particular instance of an object: the paper on the desk can appear white and in the afternoon yellow. Illusions, he says after Wittgenstein (1958: Part II, xi, 194e), are a particular presentation of an object, "seeing-as"; from this perspective perception is a representation. However, existent objects *directly cause* objective perception and the subjective reference to the experience itself – its intentional content. On Searle's account, intentionality is caused by how the world presents; "a direction of fit" – the world matches what is believed; and it has "conditions of satisfaction" (Searle 2015: 35, 57); intentionality contains the propositional content of the perception. Intentional states, such as beliefs and desires "determine states of satisfaction" in the context of a "*Network*" of beliefs and desires. This is also the case for perception – to see the pen *as* a rollerball, a "*Network*" of "Background abilities" are required for intentionality to function (Searle 2015: 12, 36).

In experience, when the table is correctly perceived, who can tell which parts of the experience is sensation and which are ideas, James (2005 [1905]: 59) asks? The extended and the non-extended fuse together. Whereas Searle says, perception has a world to mind direction of fit, the perception directly causes the intentional content. Searle then goes on to say that the subjective experience is a mind to world fit. They are both descriptions of direct perception, causing subjective intentionality. Searle's account of intentionality is more specific

in the differentiation between two directions of fit, as Henry Jackman (1998: 161-162) observes.

**An analogy towards direct perception**

Two problems: The ontological problem – how does the outside 'world' get inside the 'mind'; the epistemological problem – as perception is interpreted as 'faulty' how do we know what is real?

If we take James,[130] and Searle's positions that perception is direct, it requires, at a level of description below appearances, that we reject Cartesian dualism of mind and body and that of the brain and the world. We can think of pan of water. As the water boils steam rises. We do not say that the steam *represents* the water in its new state or that a butterfly *represents* the caterpillar, in each case the form is different but the later state is directly the result of the former. The bell clapper hitting the side of the bell *causes* the movement of air particles in a mechanical wave that passes into the listener's outer ear into fluid in the middle ear, stimulating hairs and causing the release of chemical neurotransmitters that move nerve signals along to the auditory nerve to the auditory cortex. The rate of change, between features of the sound (frequency, intensity and pitch and proximity), in the form of a pattern of nerve impulses, is matched with previous pattern schema. *The sound produced by its source the bell, we label as such because of the material processes by which we come to say we experience the bell.* The bell is only a bell when our *objective* processes of perception *cause*

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[130] James (1899: 14) at times leaves this position open and consistent with his pluralist philosophy contemplates the potential for mind to live on beyond death.

higher level cognitive processes to be *directed* towards the object leading to our *subjective* experience where we can *talk about* perception's object and content. As James says, our experience is only potentially or virtually subjective or objective. Perception *is* the directly caused series of processes, not an unmediated *correspondence* of objects in the world, because the processes *happening* in which we perceive, monitor, measure, calculate and analyse and interpret it, *is* what we know it to be, as subjectively reported upon.

We differentiate between types of knowledge – that which we *label* as concrete facts and that which we say are imagined, on the grounds that there are specifiable qualitative and functional differences pertaining to particular environmental and temporal contexts: James posits that the imagined experience is less vivid in contrast to the world around you; it also does not function in the same way – the imagined apple can only be bitten by an imagined mouth.

Denham and Winkler's representational way of *talking* about the auditory system gives an account of a process of pattern recognition. Verification of these claims can be made, in James' terms, according to the practical benefits that are deemed to be its consequences, this does not equate to epistemological certainty of course. Arguably a hallucination of an object (no physical object present) could be accounted for by the recall of 'pattern schema' posited in Denham and Winkler neuroscience account of auditory perception – therefore Kriegel's 'objective' and 'subjective' types of representation can be taken as continuous, one informing the other. This idea dovetails with James' account of perception as potentially objective or subjective – the objective experience of stimuli is the result of prior experiences. We have

subjective awareness of the objective sound of the bell and we can have a bell-*like* experience in volitional recall of the bell that has recourse to objective pattern schema.

**The problem of translation**

James repeatedly uses the term substitution to describe how language, concepts or theories substitute and "transform" (SPP 1911: 185) or "translate" experience (PU 1909: 217). Concepts are substitutes, not mirrors of realities. James (1912: 176) asks what are the practical consequences of particular propositional substitutions?

Nelson Goodman (1978: 92) gives the example of a psychophysical experiment where an observer is asked to report how many flashes of light they see. There are a number of ambiguous factors that the observer has to negotiate, do they report that they see one flash when they know there to be two closely spaced or do they report the apparent motion that they see? If the observer is given a "vocabulary" that specifies how they should report their observation that as a phenomenal or perceptual observation it makes the conclusions about relations between the physical and the real "pointless", he says. By requiring an observer to use a particular vocabulary involves a "fashioning of facts" that makes "any identification" between the physical, real, perceptual and the apparent highly contingent. Goodman (1978: 93) makes the point we cannot say what is necessarily true but only specify the frame of reference in which the descriptions we use operate within. We can only say what is fact and what is fiction in terms of the frames of reference in which the descriptions we use operate.

Goodman (1978: 93) says "...meanings vanishes into certain relationships between terms..." and therefore facts are reduced to relations in which translation "routinely" occurs.

> "Worlds are made by making such versions with words, numerals, pictures, sounds, or other symbols of any kind in any medium; and the comparative study of these versions and visions and of their making is what I call a critique of worldmaking." (1978: 94)

Rorty (1979: 203 fn) makes the observation that in the translation between theories from the natural sciences to intentional language – "I do not see how we can tell when we have stopped describing and started correlating descriptions." Rorty (1979: 205, 208) argues that the choice of vocabularies is a difference in focus or scale of applicability, rather than an ontological difference. Different vocabularies can have different spheres of application. While 'truth-functional language' (logic) can describe the universal, intentional language can describe some particular parts of the world, such as feelings and beliefs and other vocabularies such as literary theory, political theory, history, etc. can describe other parts of the world.

The challenge, Brandom (2006: 4) explains, is to show how target vocabularies can be reconstructed from the base vocabularies. What is the criterion of adequacy, co-reference or supervenience?

> "...the biggest thing that ever happened to it [classical analytical philosophy]—is the *pragmatist challenge* to it that was mounted during the middle years of the twentieth century. Generically, this movement of thought amounts to a displacement from the center of philosophical attention of the notion of meaning in favor of that of use: in suitably broad senses of those terms, replacing concern with *semantics* by concern with *pragmatics*. The towering figure behind this conceptual sea-change is, of course, Wittgenstein." (2006:5)

Wilfred Sellars, position is that empirical base vocabularies are not autonomous and require inference; reference to natural or other vocabularies that surrounds the use of base language

(Brandon 2006:5). While Sellars argues that phenomenal vocabulary is also not autonomous because in order to say that something looks 'red' requires the proviso that circumstances remain the same in order to say it looks 'red' while making the statement of looking red provisional, in the case that thing may not stay the same. For Brandom, if this description of phenomenal language is correct then phenomenal language is not pragmatically autonomous – it is part of a wider language game, it cannot be said that something looks 'red' without understanding what 'red' is. 'Looks' is dependent on 'is'. To talk about how something looks or feels (the target vocabulary) rests upon the base vocabulary.

*Talking* of the auditory system as a process of pattern recognition is an objective naturalist characterisation of perception – that our experience of the world is of existent objects that we have perceptual access to via representations. On this view, physical objects are ontologically distinct from concepts. Empirical verification of scientific claims requires that objects exist and that science can access those objects. Linguistic pragmatists critique the epistemological basis of objective naturalism. Huw Price (2004: 78) and Robert Brandom (2011: 12, 26) reject that perceptual experience can give us immediate and unprivileged access to 'facts', 'data' – knowledge of the world.

Huw Price (2004: 5) questions the basis of scientific naturalism arguing for a distinction between 'subject naturalism' – the view that we are natural creatures, from 'object naturalism' – the view that there are natural objects that science can study. He asks if reality is natural how do you distinguish between natural and non-natural objects? Ethics, mathematics, interpretation and meaning are often taken to be non-natural, whereas scientific data is taken to be natural – the 'facts' that knowledge rests upon? Price (2004: 7-8)

argues that these problems *"originate"* from questions around language and its use, the privileging facts and data by designating them as objectively natural; it is a problem of *placement* – how we assign an object to be natural or otherwise. The "*material conception*" places objects by assigning them terms – 'wood' is terminologically distinguished as a natural object, whereas the concept of 'quality' is terminologically distinguished as a non-natural. The *"linguistic conception"* of placement says "linguistic behaviour" rather than ontological differences determine the assignment of objects as natural or otherwise.

The "representationalist assumption" Price says, is framing the problem as a "shift" from the term to its content – seeing that a term as being directed towards, standing for or representing something that is a non-linguistic 'Given'[131], Price argues. To say that a table is

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[131] Wilfred Sellars (1963: 128) draws attention to the assumptions, he says, that sense datum theories distinguish between the 'sense-content' and the relational act of sensing. He says those that hold this view commonly take 'sense-content' (that which is perceived) to be the foundation of non-inferential empirical knowledge, while simultaneously holding the contradictory position that it is (unreliable) secondary qualities – 'particulars' – that are actually sensed, while non-inferential facts are not taken to be particulars. Sellars questions that either sense-data or non-inferential facts can either constitute, or be the foundations of knowledge. Sellars (1963: 161) says that sensations may be essential in forming associative connections with the concepts of the particulars of objects, however, red can be *causally* mediated by sensations of red, without the mistaken idea that the what is denoted by red are "really sensations" rather than "red physical objects". What is denoted by red is the red object, not sensations.

According to Sellars there is no pre-conceptual or pre-lingusitic knowledge. To have a concept of having a thought requires the linguistic concept of having a thought. Sellars questions that we have knowledge of the world because we have sensations and thoughts or that we have private concepts thoughts or sensations. Sellars (1963: 177) argues that to align awareness of thoughts with sensations is wrong. Instead he puts forward "…a modified form of the view that thoughts are *linguistic* episodes." 'The Myth of the Given' is replaced with 'The Myth of Jones'. Sellars's 'The Myth of Jones' separates "*inner episodes*" into two categories, thoughts and sensations. Where his model of inner thoughts is that which results from public language (1963: 187). In Sellar's account thought comes before language so the individual does not *know* they are thinking until the thoughts are expressed in concepts – knowing requires concepts that are 'public knowledge' from language that is socially constructed.

> "My myth [of Jones] has shown that the fact that language is essentially an *intersubjective* achievement, and is learned in intersubjective contexts – a fact rightly stressed in modern psychologies of language, thus by B.F. Skinner, and by certain philosophers, e.g. Carnap, Wittgenstein – is compatible with the "privacy" of "innerepisodes." (Sellar's 1963: 189)

Sellar's (1963: 170) echoes Peirce and Wittgenstein's emphasis on meaning and the general – language acquires its meaning through its general shared usage. Knowledge for Sellars is not foundational, resting upon physical objects or

brown is to make a truth claim about the table, if the table is brown. The 'object naturalist'

assumes that sentence refers to a non-linguistic referent. Price (2004: 8) rejects there is a

"ladder" leading from a term to a non-linguistic object and also Quine's view there is a

"semantic ascent" from an utterance to the object to which the sentence refers. Price says this

is a fallacy; both a sentence, and the object to which it refers, are just different "modes" of

talking. However, for an 'object naturalist', a sentence must take the referent to be non-

linguistic in order that real objects to exist outside of language.[132]

There is a discussion on both sides of this argument a path that leads to questions of

translation – if we specify our account of the world linguistically we are using a particular

'vocabulary' whose base language – subjective accounts of experience or observational

reports of secondary qualities, in Brandom's (2011: 86) terms, is not equivocal with the target

language – the translation to primary qualities or theoretical languages. The 'vocabularies'[133]

we use to describe observations, whether in semantic-functional terms, or natural language is

normative, part of language game.

Brandom (2011: 12, 26) does not see a conflict with scientific explanations of representation

that are 'subpersonal' – cognitive processes that occur beneath the level of awareness. He

distinguishes between these 'causal' representations and those of 'practical' intentionality –

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sense-data, nor he says, conceived after Hegel as circular, but a "...it is a self-correcting enterprise which can put *any* claim in jeopardy, though not *all* at once." (1963: 170)

[132] But arguably this is a linguistic construing of the problem. Alternatively, by choosing to take the view that language as referential makes an ontological assertion that there *are* objects that function in the world, that distinguishes them from thoughts about objects or terms. This does not mean we cannot also agree with the linguistic argument that our awareness is mediated through language.

[133] Brandom (2011: 116) reminds us this is Rorty's term.

(linguistic) abilities that are skill-based adaptations to the environment, which are implicit in 'discursive' intentionality – 'normative' rule-based representations with propositional content that occur at the 'personal' level. The association between meaning and terms in natural language is subject to its use. However, Brandom (2011: 116) argues that translation is not a case of moving from a normative "*meaning*" to its expression as a "*belief*". Both aspects of "discursive activity", the normative language that mediates our perceptual experience and the use of language, involve applying conceptual norms and putting in place new concepts, "every concept develops its content." (2011: 117).[134] Judgements in the form of propositions are basis of "discursive practice", of rationality – in Brandom's (2011: 30) mantra, the capability of "giving and asking for *reasons*". An implication for Brandom (2011: 160) is the movement from an emphasis of semantic meaning of a vocabulary, to the pragmatic concern with use, and the role of Wittgenstein[135] in articulating this transition.

Brandom (2011: 55) argues that while the classical pragmatists acknowledge the normative function of language[136] they, "...do not share the...concern with language, and with the *dis*continuities with nature that it establishes and enforces." For Brandom (2011:198) that sensory perception, intentionality and language can have transparent meaning, that it can represent the world he rejects, after Rorty and Sellars, leads him to also reject the idea of

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[134] While Brandom (2011: 55) acknowledges a comparison can be drawn with Derrida's theory of différence, the deferment of meaning from signifier to signifier, he stresses (2011: 205) for the [linguistic] pragmatist perspective, the emphasis, is not on terms, but upon "declarative sentences".

[135] Rorty (1979), Brandon (2011: 160), and many others, cite Wittgenstein's role in the subsequent philosophical emphasis from *meaning* to (pragmatic) *use.* In *Philosophical Investigations* Wittgenstein (2009: x. 90-94) shows reporting is normative use of language is a kind of "language-game" learnt as children. Semantic meaning isn't sufficient; it is in the use of words and the context of utterance that meaning is inferred. Discussed further in Chapter 3, 4 and 5 of this text.

[136] This point is evident in Peirce's (1905b: 494) notion of *general* concepts.

experience. It is the experiential dimension of judgement that Brandom and the linguistic pragmatists reject, while James takes the experiential dimension to be central, while neither side accepts the notion of the 'given'.

Here I summarise the reasons that classical and contemporary pragmatists consider experience to be mediated at different levels of perception and cognition:[137]

1. There is discrimination between surfaces or between parts of the world, such as sound frequencies occurring within unfolding events. The *manner of discrimination* is determined by the structure of the brain that has evolved to identify difference in, proximity, temporality, light, weight, between edges and solids etc.

2. Awareness of the environment is the attentional system's discrimination between the contents of events.

3. Proprioception (Goldman 2012: 71), for example, can be seen as a type of internal representational awareness of our body's position in proximity to other objects.

4. When we observe how we feel or what we perceive we do not have direct access the world or to the processes that *transform* our bodily interactions with the world into perceptions and thoughts.

5. Awareness of self and thinking is not a private language. Thought occurs within public language – that a species evolved and with human disposition to learn the particular language of our social cultural context. (some see level 3 and 4 as one).

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[137] Not all 'varieties' of pragmatists put forward all these levels of mediation

6. When we report our subjective experience we can only *talk of* the portion of bodily experience that we have access to.

## An argument for considering naturalistic causal explanations for experiences

While there are problems of translation between talking about different levels of representation that may occur between stimuli and experience, and translation between explanations, we can make Jamesian classical pragmatist case for talking about experience, rather than making truth claims. James' ambulatory theory of reality as "an ideal limit" (MT 1909: 158), the intellectual and practical (sensory perceptions) termini that our thoughts have lead us to, and continue to lead us, through successive thoughts. Each terminus is provisional because we are rarely satisfied and go on looking for an ultimately satisfying terminus or ultimate reality. A true idea is one that we consider to be real, one that most closely touches the terminus, in the present circumstances. It is one that has practical consequences in the current situation. A case is made for drawing upon scientific research to inform the *speculative practice* and experimentation of locative narrative, not because the outcome will be verified but because it leads us *usefully,* in specifiable terms, to further experimentation.

## Creating illusions and evoking misperceptions and perceptual ambiguity

Locative narrative can be interrogated as a site where the fallibility of perception becomes evident. Perceptual rupture and discontinuity, is experienced when a participant experiences ambiguity or becomes aware that their perception *seems* 'faulty'. The introduction of

conflicting sensory stimuli may prompt misperceptions and a belief that the imagined has occurred. The perceptual aspect of the *metaphor multi-stability* here invokes the Jamesian relational analysis: *relations to attention*, *relations to: perceptual objects*, *imaginary objects*, *to the experiences of perception and misperception to surprize and relations to the values of belief* and *reality.*

William Gaver (1993: 287) says in our "everyday listening" experience we may not see the source of a sound but we hear it directly, cemented with the acoustic qualities afforded by environment. The sound of the car is often believed to be evidence for a car, account Nudds & O'Callaghan (2009:12). Arguably the role of belief is important in creating fictional places in sound. That which is seen (with the exception of hallucinations), terminates in its referent, while it is not necessary to witness the source of a sound that can remain unverified, accepted as as existent, unless there is evidence to the contrary.

In the test iteration of *LociOscope: The Letters,* situated in at the university and city centre, the 'Rome' binaural soundscape featured the low rumbling of an approaching 1920's[138] tram, that triggered nearby a main road. Despite the lack of trams in Plymouth the sound was not incongruous next to the voluminous traffic. When the same soundscape was situated not far away in a pedestrian area, conversely it appeared as a recording, without the corroborating ambient sound or visual correlates. Useful parallels can perhaps be drawn with Meredith and Stein's (1993: 123) and Calvert's (2001: 1111) analysis of multimodal integration, that argues that when different sensory stimuli share the same proximity sensory integration occurs

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[138] The binaural field recording was made at the West Country Living Museum, Dudley, West Midlands.

(recorded tram sound and visual and auditory noise of the traffic). The tram observation indicated that making recordings of sounds congruent with the existent environment might result in the listener assuming that they were issuing from the surroundings, or create ambiguity around their source.

**Case study 2: *The Lost Index, No.1:  Landscape with Figures***

Developing the seventh prototype*, The Lost Index, No.1:  Landscape with Figures,* version 1: Suggestion. Published on iTunes.

Building on the sound, narrative and interaction design experiments in case study one that explored the affects of multi-stability in the formal garden setting, in the futuristic locative narrative, *The Lost Index – Landscape with Figures*, the structure of the interaction, narrative and sound aimed to directly integrate the museum setting into the experience. The interaction mechanism utilised a memory game and a guided imaginary journey into a painting to a fictional place.

Your phone rings… "*Listen we haven't got long, you need to hear this…sometime ago you were a volunteer in an experiment to become a human hard-drive… information was stored in your memory…while you have no recollection of this event the material now needs to be retrieved…it is a painless procedure…For the good of others and yourself, follow these instructions…*"[139] You make your way to a gallery on the first floor. You stand in the corner of the room and look

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[139] Excerpt from the script of *Landscape with Figures.*

down at your phone. First you notice your image reflected on the screen, and then another face emerges. Looking up, you are standing in front of a landscape painting. The voice on the phone again…'You are going on a journey'… your gaze is directed from the gilt frame to the foreground…You are on the path. A dog barks at your feet…geese fly low towards the river…other travellers walking ahead…passing onwards, and arriving at the entrance to the church, you twist the handle and enter the tower…The heavy door closes behind you…Eyes adjusting to the dim interior, you begin to climb …Reaching a room you enter…On the floor there's a box…You lift the lid and reach inside…'What do you find?' There seems to be something else inside…Retracing your journey through the landscape you come to the beginning and step out of the frame. You are back in the gallery. Looking at the phone screen you are prompted to input the data retrieved from your memory.

The structure of the experience has four phases: entering the museum launching the app and receiving a phone call that sets the scene of the story; walking up to a gallery on the first floor, indicating arrival on the phone; receiving a second phone call that gives further story content and instigates a concentration exercise using the reflective surface of the phone screen and emerging graphics; standing in front of a landscape painting that becomes the setting of a narrative and a guided imaginary experience which turns into a memory game; and finally 'returning' to the gallery and inputting the answers into the phone.

Participants are given verbal instruction to go to a gallery on the first floor and stand in front of a painting, *Landscape with Figures* (c1660) by Salomon van Ruysdael. Indicating when they

have found the painting by pressing a button on the phone.[140] This action triggers another

phone call, a short while after, in which a voice asks the participant to concentrate on their

phone screen. At first participants see a reflection of their own face and then the outline of

another face gradually appears (an animation), replacing their reflection. The aim is to focus

the participant's attention and encouraging concentration, after which they are given the

instruction to imagine that they are that person on the screen, look up at the painting

*Landscape with Figures* where they are going on a journey…
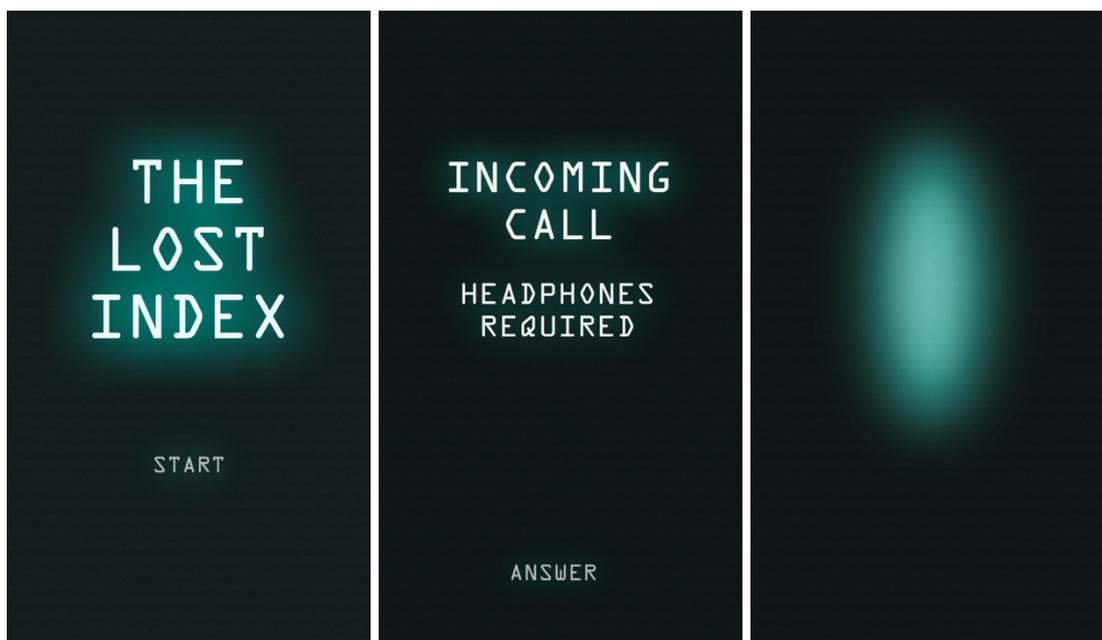


**Fig. 20** *The Lost Index, No. 1: Landscape with Figures,* for Plymouth City Museum and Art Gallery, version 1, 'suggestion'. Screenshots from the final app.

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[140] Tapping a button on the phone to indicate location has been used as a positioning technique in a number of locative arts projects, an early example is Kate Armstrong's *PING* (2003).

The phone call from the 'secret agent' moves from addressing the participant in the first person, to the second. Short, simple, often declarative sentences suggest what the person sees, thinks and feels, akin the style of 'Choose Your Own Adventure' and computer 'text adventures'.[141] Using with very few adjectives the dialogue creates ellipses, for the participant to fill-in with their own experience to encourage their supposition of *as-if*, *"You were one of these volunteers. Please follow these simple instructions..."*

The sentence structure of the nested narrative moving into the painting is informed by hypnosis induction scripts (Weitzenhoffer, Hilgard & Kihlstrom 1996: 8), with the aim of focusing the participant's attention and guiding the imaginary transformation into the character in the story. The script in no way attempts to hypnotise[142] the participant. It does not mention relaxation, drowsiness or sleep. In this form narrative suggestions were used to prompt thoughts of the world of the story and its fictional places. The authoritative voice on the phone describes the scene in the painting and presents the participant *as* travelling along the path, passing the people and animals and arriving at a church in the distance. It suggests the types of things that may be heard or felt, such as, "...*you see a woman greeting a neighbour* "...*you hear voices on the road ahead..."*

Arriving at the church, the voice on the phone, invites the participant to enter the tower (in their imagination) and climb the steps. 'Arriving' at a room on the first floor, they are directed to go inside and see a box on the floor, open its lid and look inside. Description is minimal to

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[141] Computer adventure games, first developed in 1975 as text only, by Will Crowther, (Montfort 2005: 10)

[142] Spiegel (2008:181) describes hypnosis as "...a state of highly focused attention coupled with reduced peripheral awareness.".

prompt the 'filling-in' of the details with their own thoughts. Reaching inside the box, participants are asked to think about what is in the box. They are asked to retrieve an object and also a piece of paper that has a five-digit number written on it. They are told that each digit represents the groups of people they passed on their journey. The story continues to describe the participant leaving the room and retracing their journey along the path, meeting again the people and animals that they had passed earlier, providing a second chance to work out the number puzzle. Reaching the end of the path, they are asked to step out of the painting and 'return' to the museum room. The app now triggers a screen that has the appearance of an index with a space for registering the number and the name of the object 'seen' in the box.
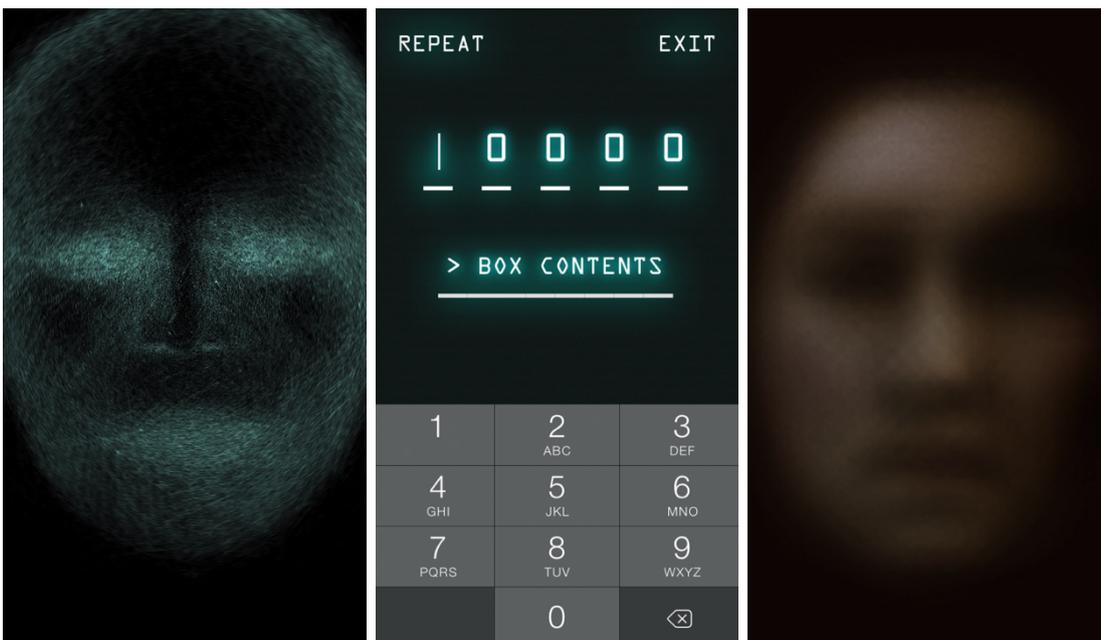


**Fig. 21** *The Lost Index, No. 1: Landscape with Figures,* for Plymouth City Museum and Art Gallery, version 1, 'suggestion'. Screenshots from the final app.

Each digit of the answer to the number puzzle was a separate variable that was stored as a constant within the application. This was compared against the number input by the user. If the number inputted is correct then the number turns green, and red if wrong, allowing

further guesses. The imagined object was accepted regardless of what is entered. Correct inputting of the whole number was required for the 'retrieval process' (and the game) to be 'successfully' completed, triggering the on-screen message that their memory data had been accepted. If any of the four digits were incorrect, the message was displayed that retrieval was unsuccessful on this occasion, with the opportunity restart. The experience takes around ten minutes.

The app[143] was designed to have a 'filmic science-fiction military' appearance. It has four screens: "incoming call", "pulsating graphic", "image of a face", "data entry screen". The sound file for the phone call was triggered by launching the app. Navigation in the museum was delivered via simple instructions: "*go up to the first floor", "find the room named the Cottonian Collection*", "*find the painting called 'Landscape with Figures' in the right hand corner*." Tapping the screen was integrated into the story, '*when you arrive at the painting*', triggering the next sound file. When participants had found the painting they pressed the screen again triggering the third sound file and the image of the emerging face that was accompanied by the 'journey' sound file.

The sound begins with the vibrating and ringing of an incoming phone call and an on-screen request to put on headphones. Drawing upon findings from *The Letters,* the game used binaural sound and integrated recordings of ambient sounds and acoustic qualities of the relevant rooms in the museum within each of the compositions. Binaural recordings of the entrance hall, including approaching footsteps, were heard concurrently with the phone call.

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[143] The coding of the app and the interface was designed in collaboration with James Brocklehurst. EW described the mechanism, requirements and appearance for each stage that was implemented and designed by JB.

The recorded binaural sound was intensified the ambient sounds in each of the featured locations. The voice on the phone had an authoritative tone, in keeping with the secret service character. It was recorded in small room with a distinctly different reverb to the entrance hall and layered behind the voice, treated with a reduced frequency band filter to intensify the illusion of a real phone call. The sounds of the journey through the scene in the painting were binaurally recorded in a rural location and layered with key sounds of the horse and cart, birds and animals, people and animals. The sounds inside the church were also binaurally recorded on-location. *"The sound was also great, really set the scene, and sounded odd, like there were people behind you!"*

The participant encounters a number of intersecting contexts. The existent museum is the place where the experience takes place. Launching the app and putting on headphones signals that it is 'non-serious', in Searle's (1975: 320) terms. The graphical interface declares the science fiction genre. Fictional places are intersecting and nested: the museum is recast as a covert location of unknown agents; the phone rings, a voice emits from an unspecified office; a landscape depicted in a painting is the setting for the action, moving beyond the visual depiction, the story moves into the church tower. The participant has varying relations to these contexts. The sociocultural mores and behaviourial norms of the museum are reassigned by the expectations of game play. Answering the phone, listening and following directions are enacted as part of the story. Simply walking through the museum becomes a performance in the narrative.

**Summary and Jamesian relational analysis**

The techniques of integrating the museum with the narrative through the device of the phone call, placing the participant as the central protagonist and layering of the ambient sound with the imaginary soundscapes, were to some extent successful in situating the narrative within the museum. The participation mechanism was coherent within the narrative and simple to operate, enabling participants to easily locate the painting and trigger the sounds. We can analyse the object of the phone that was continuous within the story world as outside in terms of the *value of reality* participants attributed to it. While the phone call's functionality operates in *relations to rationality,* the content of the call, the science fiction backstory and introduction to the participant's role within the narrative, function in terms of its *relations to the imaginary* and the *value of reality* attributed to the narrative in the context of the experience. Participants' aesthetic judgements about sci-fi generally and the execution of this particular narrative, with *relations to emotions* and the *value of taste; beauty* are part of the matrix of relations that describe the structure of participants' experience.

Guided imagining is distinct from simply listening to a story as the participant is asked to specifically imagine that they are undertaking the actions (*relations to the experience of imagining*) for which greater concentration may be necessary (*relations to volition*) (*relations to imaginary objects*). The emerging graphic of a wireframe face on the phone screen, used to as an attention focusing technique, was reported by some participants as enhancing concentration and reducing distraction from the activities of others in the gallery (*relations to attention*) (*relations to volition and action*) (*relations to perceptual objects*). The initial version of the emerging face appearing on the phone was reported as not sufficiently distinctive or interesting to fulfil the intended purpose for some participants. A new version was developed

that combined colours of the painting with an androgynous photographic image *(relations to self)* (*value of reality*) *(value of taste; beauty)*.

The narrative premise, structure, language and mode of delivery of *Lost Index, No.1* was reported as evocative for many (*relations to imaginary objects*) (*relations to language*) (*relations to volition and action*). While the steeple is depicted in the painting, the narrative and soundscape evokes the interior of the church tower which is not. James (PP 1890a: 214) says when our attention is focused on particular task it can change our sense of time, and our relations to things can have different types of presence for us. For those who reported their attention was directed towards the painting, 'walking along the path as it moved toward the church in the distance had the potential to affect *relations to perceptual and imaginary objects*. Thoughts of the discrepancy between the small painted rectangle and that of our body, which is manifestly of a different nature, may be temporally deferred.  What we take to be veridical or describe as imaginary may be vague or distinct, *what is talked of as real and as imagined may become ambiguous or confused*. Objective and subjective spaces flip and interpenetrate, but the imagined will not function in the real world. *"I really imagined what was in the box".* The lack of a visible correlate and contradiction with the scene depicted, diminished engagement for other participants, who reported they found it difficult to imagine what was not directly visible, or switch between using the stimulus of the painting to another mode of engagement. *"I liked looking at the painting in detail and listening to the sounds and people talking."  "I couldn't imagine inside the church as much."* Here we can describe the interaction between two sets of relations to *perceptual objects* and *relations to imaginary object* that function in relation to *volition and action* and *values of belief* and *reality.*

A willingness to engage and focus attention (*relations to volition and action*) is cited as a prerequisite for participants of hypnotic induction and suggestion (Spiegel 2008: 181) (McConkey 2008: 54). Deliberate intention, effort and also the environmental conditions to focus their attention may also be necessary for participants to engage in guided imagining. Those who report, *"I just don't like this kind of thing." "It's not for me. I can't be bothered with it"* and reject the narrative premise, the goals, or the mode of engagement, did not become interested. These participants also reported that they couldn't imagine '*as-if*' they were in the landscape, even when they reported experiencing audio misperceptions, such as describing *feeling* like there was someone behind them when they heard footsteps. Misperception does not function in *relation to volition,* as Denham and Winkler (2012: 79) have argued about perceptual multistability, demonstrated by the switching between the interpretation of objects, such as the Necker cube.

It is perhaps the 'willingness to make-believe', to paraphrase both James (1897: 2) and Walton (1996: 19). Concentration (*relations to attention*), interaction (*relations to action*) and supposition (*relations to imagining*) (*value of belief*), are the combination of relations and values that also are present in other expanded narrative practices, such as performance making, gaming and role-play. *Relations to belief* and *relations to the experience of* imagining *relations to emotions* and volitional acts of hypotheses forming are central to the subjective experience of *Landscape with Figures. "It was spooky being told what to do and unnerving to be lead." "It was like going on a journey but I didn't know where I was going."*

Instructions for this locative narrative were integrated into the story, via the phone calls, but for some participants, further explanation and recapping was requested *(relations to*

*rationality*). The memory game was reported as too difficult for many *(relations to rationality)* *(relations to volition)* *(relations to imagining)* and a simpler memory game that has a greater impact on the development of the narrative and game outcome may have led to greater engagement. *"I went to the church but I did not understand how to find the number."*

The development of devices to focus participant attention and the relationships between imaginative engagement, narrative suggestion and contradictory perceptual cues offered further areas for experimentation in the next prototype.

See Appendix 1 for **Figs. 19, 20**, **21***The Lost Index, No. 2: Landscape with Figures,* Version 1: Suggestion. Published. iTunes: Design Tables.

# Chapter 5

## Encountering the disappearing fault line between fact and fiction...

This chapter considers James' framing of truth in relation to his few direct reflections upon literature, examined in the context of related views of Wittgenstein, Nelson Goodman and Hilary Putnam, that can be taken as proponents of the pragmatist lineage and can be seen as responses to James' account of experience. The discussion then broadens to other philosophers of narrative to consider specific bifurcations in the status of fiction – relations between the notions of 'reality', 'truth', 'facts' and 'nonfiction; and the form of fiction, as a container of 'truths', 'facts', 'nonfactuals' and 'fictions'.

For James, a thought's reference to an object occurs in the medium of an 'experienceable environment' and is a condition of it being known; what something is *known-as* refers to how it functions in a particular context and the consequences that follow. I argue that acts of interpretation are context dependent descriptions that enclose *ways of classifying* and *ways of talking.* For James, whether fiction or nonfiction is asserted to be the case, is dependent upon context of the percipient, while Wittgenstein, Goodman and Putnam prioritise the analysis of linguistic, institutional and logical structures above that of the individual's experience.

I will extend the metaphor of multi-stability further to the idea of belief, in accordance with James, who says, that which we take to be rational, ultimately rests upon a feeling of rationality, as there is no pre-existent truth. James argues that if the value of truth is constrained to particular circumstances, our beliefs can have practical application. The

malleability of our beliefs is what, it is argued here, narratives trade upon, by creating

contexts and directing our thoughts.

In a Jamesian pragmatist vein I then ask, what are the practical consequences of these

descriptions for the experiencing of fictional places? What further concepts do they carry us

on to? What questions may be usefully posed in the design of locative narrative?

Discussions of fiction and literature by James are primarily used as illustrations for broader

ideas. Nevertheless, these illustrations are interesting in this context because they enfold

narrative into the axes of James' thought: the evolutionary evolved structure of the brain, and

its response-creation of experience in the context of the 'experienceable environment'. These

illustrations demonstrate the following ideas:

1) Words can have a "reality feeling"
2) Fiction and its correspondence/or lack of correspondence with reality
3) Worlds as categories to which we assign parts of our experience

**Words can have a "reality-feeling"**

In 'The Function of Cognition' James (MT 1909 [1884]: 25) says we ascribe to those things

that seem to act in our world, such as others going about the world, as part of our reality and

not as products of our mind. Words do not function as mental copies of their referents,

however they can produce the subjective sense of them "...endued with the feeling of

familiarity and reality" (MT 1909 [1884]: 31-32). The consequence of this feeling is

metonymic – the referents belong to a world that is existent, that if we could just squint a little

harder its world would come into view.

> "I am sure that my own current thinking has *words* which are made
> intelligible by being referred to some reality that lies beyond the
> horizon of direct consciousness, and of which I am only aware as of a
> terminal *more* existing in a certain direction, to which the words might
> lead but do not lead yet. The *subject* or *topic* of the words is usually
> something towards which I mentally seem to pitch them in a backward
> way, almost as I might jerk my thumb over my shoulder to point at
> something, without looking round, if I were only entirely sure that it
> was there. The *upshot, or conclusion,* of the words is something towards
> which I seem to incline my head forwards, as if giving assent to its
> existence, tho all my mind's eye catches sight of may be some tatter of
> an image connected with it, which tatter, however, if only endued with
> the feeling of familiarity and reality, makes me feel that the whole to
> which it belongs is rational and real, and fit to be let pass." (James MT
> 1909: 31-32)

James says we incline our heads, as if towards the reality that the words may lead us and that

in "our mind's eye" we might catch a "tatter of an image connected to it…" Words can have a

'reality feeling'. That thoughts of things not present can feel real, is connected here to the

evocative potential of language. James also uses the phrase, "reality-feeling" (VRE 1902: 56-

58), to refer to a phenomenal quality of hallucinations and religious experiences. For James,

on the one hand reality refers to what is existent, and on the other it is a value that we ascribe

to experience that is like. Reality is our "warrant" (MT 1909: 6) for calling a feeling cognition,

says James, but the only warrant we have for reality is the faith of the inquirer, or in other

words, the belief that an instance of external reality is predicated on belief in existent reality.

**Fiction and its correspondence/or lack of correspondence to reality**

James argues that it is difficult to believe practically in solipsism, in our everyday experience we seem to splash in the same water and play the same games. However, he says, this is not the case for the worlds described in poetry and fiction. While readers' ideas of Scott's literary figure of Ivanhoe may "resemble" one another, they know he is not real because one reader's imaginings do not *act* upon another's (MT 1909 [1887]: 26-27). James uses this example of reading about fictional characters to illustrate how we can experientially distinguish between the real and the imagined. Here he asserts that for something to be real it must resemble and operate upon a reality.[144] In the republication of this essay, 'The Function of Cognition', in *The Meaning of Truth* (MT 1909: 42-43 endnote), James seeks to improve upon what he sees as the "defects" of his account of reality. In the endnotes,[145] he stresses that resemblance between a thought and what is taken to be the existent world, is no longer a necessary condition of its reality. As he had previously argued in *Principles* (PP 1890b: 72), the brain does not simply reflect the environment; it inhabits and creates it. Reality therefore, cannot be said to be a copy of or a correspondence to the world. A feeling or concept *potentially* terminates in the actual object to which it refers. Here James (MT 1909: 42-43 endnote) emphasizes that concepts are a "co-ordinate realm" with percepts. As he expresses in his explicitly radical empiricist writings, concepts are real, in the sense that everything experienceable is real (ERE 1912: 159). It is in our unfolding experience that thoughts are taken as a perception or an idea. In this sense experience is prior to language, not because it is

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[144] "The feeling of *q* knows whatever reality it resembles, and either directly or indirectly operates on. If it resemble without operating, it is a dream; if it operate without resembling, it is an error." (MT 1909 [1887]: 28)

[145] James' endnotes are discussed at greater length in chapter 1 of this text, 'James and Experience'.

a kind of essential substance or unmediated mode of existence, but because 'experience' describes awareness of the happening of events.

When I read to you from a book I utter sounds, he says. The sounds are your percepts too and act to prompt feelings for us both. You assume that my feelings resemble yours, although this is something that we can never be sure of, while we hold the "hypothesis" that "the book is one book felt in both our worlds" (MT 1909: 37). While we may share realities there is divergence in the exact nature of our individual perceptions and still more so in the comparative understanding of concepts and each other's emotions (MT 1909: 38).

For James, truth is a belief attributed in experience, whereas reality is what we experience; "Realities are not true, they *are*; and beliefs are true *of* them." (MT 1909: 196). However, the object that is real is the object believed in. Reality is what it is believed to be so. (MT 1909: 236). Reality is also the potentially real; you hold the belief that the room on the other side of the door is your dining room, says James, it is only potentially a dining room for you until experience confirms it to be true. In the same way we can have the hypothesis that the sides of a triangle are the same length. We can measure them and *see* if the idea is true.

> "So far as reality means experienceable reality, both it and the truths men gain about it are everlastingly in process of mutation – mutation towards a definite goal, it may be – but still mutation." (P 1907: 224-225)

James extends the pragmatic method of establishing the truth of propositions to refer to metaphysical questions within his 'doctrine' of radical empiricism. Truth is a type of *relation* to things; it is not a static quality of an object or a property of a fact. What we believe to be true is what functions for us, there are practical or conceptual consequences that follow from

232

our interpretation. For James truths are beliefs and ideas become true through a process of verification between the thought of an object and the potential for it to be terminated in the actual object to which it refers. The relationship between the knower and the known is a union of continuous transition that derives worth from their practical outcome (MT 1909: 108).

> "If a term or a hypothesis has any consequences in life, it can be said to have meaning. "If that meaning "works" [i.e. it leads us practically or conceptually to a point where the idea terminates and satisfactorily fits with previous truths] it will have *some* truth that ought to be held to through all possible reformulations…"(James 1907: 270)

The perception of the object verifies the concept of the object. The concept's practical function is to know the object. It is proved to be true by the perception's existence. The existence of the percept, that follows from a chain of intermediaries "*creates* the function" of knowing the concept (1909b: 109). A perception can only terminate the chain of intermediaries from the concept because it is what was *meant* by the concept, a different tower to that of the Eiffel Tower could not be said to be the concept of the Eiffel Tower.

To describe reality without account of the subjective experience "would be something like offering a printed bill of fare as the equivalent for a solid meal." (1902: 499-500)

**Worlds as categories to which we assign parts of our experience**

James says that we assign objects in our experience to different categories or "worlds", the physical world of heat, colour or sound, for example; the worlds of scientific of laws; of mathematics, logic, ethics, aesthetics; of common beliefs and prejudices; of supernatural

beliefs, religion, or **fictions**; of individual opinion; or of madness or vagary. Assignment

maybe immediate or delayed but is dependent upon our current perspective and point of

view.

> "Each world *whilst it is attended to* is real after its own fashion; only the
> reality lapses with the attention." (1890b: 293)

One context may become more dominant in our experience. But if there were no perceptual

world that seemed "'stronger' and genuinely 'outer'", James says, then our imaginings would

not seem "weak and inner in comparison" (1912: 21) and they would be our belief and our

reality, as can happen in our dreams and daydreams if perceptions do not intervene.


The real is generally referred to as existential existence, while the imaginary is taken to be an

attributive judgement, however, both these judgments are different types of "relation to

ourselves" (James PP 1890b: 290 footnotes). That which we designate as real occupies real

space for us along with other "reals" – "the space related to other reals". Interestingly, James

notes that this synthesis of an object's existence and its physical proximity is reflected in the

'ex' in the English word existence' and 'da' in the German word and dasein. To say the candle

exists, he says, is equivalent of saying "The candle is *over there",* language makes existence

concrete and spatial. It is a "practical relation" to ourselves. James (1890b: 296) says that the

belief that an object is real is unlike other predicates assigned to an object intellectually or

apprehended sensibly because belief that an object is real resides in us and not the object.[146]

In order to say something about an object's *existence* it is necessary to establish *relations*

between it and other things, or between it and us. "'Stepping outside'" is necessary for

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[146] Here in a rare concurrence with Kant, James (1890b: 296) says to say something is real does not add anything to a
term.

relations to "confer reality" on a term – by which James means that the truth value is not intrinsic to a term, it is conditional and constructed. This account of reality arguably anticipates deflationary theory of truth.[147]

For James truth is a belief attributed in experience whereas reality is what we experience, "Realities are not true, they *are*; and beliefs are true *of* them." (1909b: 196). However, the object that is real is the object believed in. Reality from James's classical pragmatist position is what at the particular moment is believed in. (1909b: 236) "Sometimes the reality is a concrete sensible presence" (1909b: 236). The process of experience means that what is considered to be real is "continually superseded" by those deemed to be more satisfactory to believe in and that an *absolute* reality appears as a boundary – a belief in a final limit (1909a: 239).

> "Cognitively we thus live under a sort of rule of three: as our private concepts represent the sense – objects to which they lead us, these being public realities independent of the individual, so these sense-realities may, in turn, represent realities of a hypersensible order, electrons, mind-stuff, God, or what not, existing independently of all human thinkers." (1909a: 239)

Henry Jackman (1998: 155) argues that by seeing James' account of truth in the context of account of intentionality it is possible to understand how subjective elements of his account of truth are compatible with his Commonsense realism. Jackman (1998: 156) makes the point that separating beliefs, ideas and utterances is important for the pragmatist and for James,[148]

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[147] Michael Dummett (1959) traces the origins of the deflationary account to Frege. Dummett, M. (1959). 'Truth', *Proceedings of the Aristotelian Society*, n.s. 59: 141–162 Frege, G. (1977 [1918]). 'Thoughts'. In. Frege, G. *Logical Investigations*, Oxford: Blackwell.

[148] Jackman (1998: 156) cites James' description of propositions as "mongrel curs that have no real place between realities on the one hand and the beliefs on the other." (1909 MT: 305).

and the problem with truths framed as propositions is that they do not fit with "realities" or "beliefs" but they present ideas as being both. As Jackman (1998: 156) illustrates, the proposition, 'the belief that the snow *is* white', treats belief as if it already has an interpretation, making a pragmatic account of truth impossible in terms of a process of verification that truths on James's account requires, whereas, James' designation of a proposition as true or false has two parts: how a sentence is interpreted and the conditions in which that interpretation is made true. James' concept of truth is about meaning and how thought is directed towards an object, rather than what makes a property of a judgment about a *pre*-interpreted proposition assertible. I add to Jackman's analysis, that for James (1909: 42 end notes), the assignment of the value of truth occurs within an interpretation of the particular occurring context.

Bertrand Russell (1910: 101-103) accused James of subjectivism, of holding a concept of truth that says if it is in our interests to say it is true – that a circle is square, for example, then it is true, when this is statement is obviously false. James does not make this claim however, he says that in our particular unfolding situation we interpret propositions as true or false and an idea is designated as true in terms of the consequences that follow from that assignment – arguably there are no practical consequences that follow from asserting that circles are square if my calculations do not concur with yours or asserting that water is dry when paddling with our shoes on means our feet get wet.[149] Saying that 'snow is white' functions for us in in the process in which you select the 'snow-coloured' paint or we point at the same icy precipitation and agree that it is white, and we might refine our claim and say that it has a bluish tinge in the morning light.

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[149] (James MT 1909: 193-194).

**Wittgenstein**

1) *Seeing-as,* attitudes to experiences and forgetting

2) Context dependent concepts

3) Reporting beliefs and truth of propositions as language-games

## *Seeing-as,* attitudes to experiences and forgetting

Wittgenstein (2009 [1958]: xi. 190-192, 205) says the difference between seeing and knowing is the "treating" of the visual experience by acting in certain ways: an immediate declaration, 'There is a path!' – "seeing" – and 'I see a path on the map' – "seen as", the difference between knowing and reading. Cases of *seeing* are '*attitudes'* to experiences, ways of 'treating' something. To ask if a visual experience is *"genuine",* is a problem of language, the "way" concepts describe the experience. Our expectations affect what we see (2009: xi. 196, 197, 198), we may "*view*" a picture "as" the pen it represents, or we may not treat the picture in this way and see it instead as a picture *of* a pen. Seeing *as,* is a way the reader "…copes with conceptual unclarities" (2009: xi. 202).

"Seeing-as" (2009: xi. 199) can occur when we are engaged in looking at a painting. It is an attitude that is temporary and context dependent. Children, Wittgenstein (2009: xi. 205) says, can "weave" a "piece of fancy around" and see an object *as* something else. Children may "forget" the object is a chest and see it "*as"* a house. Does that mean it is also correct to say 'they *see* it as a house?', he asks rhetorically. When does *seeing as* become seeing? When does fancy tip-over into belief?

## Context dependent concepts

Wittgenstein suggests (2009: ix. 70, ix. 75) that uttering the name of a colour can be a description in a particular context, such as in the act of looking around a room. The meaning of "I'm afraid" is dependent upon the context in which it is uttered, not just upon the tone of voice. To reflect on what we mean by uttering, "I am afraid", is a "supplementary" (2009: ix. 76) description, says Wittgenstein. To explain what fear means is to "*act* fear" (2009: ix. 77). Russell B. Goodman (2002: 119-120) points out that James' stress upon context is that which frames the psychological experience, whereas for Wittgenstein context is not what enters into the individual's stream of thought but the "institutions and practices" of language use.

For Wittgenstein, concepts have elastic boundaries whose perimeters are context dependent. 'Happy' can be applied to the expression on the face of a stick figure and to that of a human being, and while being related, they do not have the same meaning (2009: xi. 227). Language used metaphorically bears a similar, but not identical meaning in its unfamiliar context, as do anthropomorphised objects whose characteristics have a similar meaning but are not the same; The sardonic tower waits aloof for your arrival and declaration, "It is round!"'

## Reporting beliefs and the truth of propositions as language-games

Wittgenstein (2009: x. 90-94) categories beliefs as states of mind, ('I believe brown ink is better than black'), they can also be types of sense impressions, ('I believe this ink looks more black than brown'). However, he says, while sensory impressions are mistrusted, the beliefs are not, if they *are* mistrusted, belief is the wrong term to describe the state of mind.

Reporting is a kind of "language-game". The utterance 'I believe…' informs listeners about the speaker and not the subject matter. A person's belief, is a state of mind, and revealed by their behaviour and words. To know what one believes oneself requires listening to what one says and by drawing inferences from it, in the same way as we might attend to what someone else says. Our "attitude" (2009: x. 102-103) to our own beliefs is different from that of our regard to others' beliefs. We can judge our words to mean one belief while at the same time holding another view.

We call something a proposition in our language if we "apply the calculus of truth functions to it" (2009: 136). The concept of truth *"engages"* with the proposition. What is 'true' or 'false' are "treated as *belonging*" to the proposition and are determined in part by the grammatical rules of the particular language and by the use of each sign in a particular language-game. The concept of writing, "*fits"* with the concept of pen. In the semantic sense we can ask if a proposition is true by asking if a subject "fits" (2009: 137) with the proposition – does the number '7' fit with the series of numbers '1 to 6' that precede it? However, Wittgenstein (2009: 139) says, there are two different ways of understanding the meaning of a word *"fits"*: its semantic interpretation and also the particular *"use"* of the word. We can see continuities with James' notion of truth here – the happening of the unfolding situation is where concepts are designated as true or false and an idea is designated as true in terms of the consequences that follow from that assignment. Wittgenstein (2009: vi. 36) too argues that knowing how to play chess is being able to demonstrate this ability. A feeling of knowing is not the same as ability.

**Nelson Goodman**

1) Frames of reference are systems of description. There is no direct translation; our knowledge is descriptions of descriptions – worlds.

2) There is no foundational knowledge, or essential substances. What we can know is how things function.

3) The making of worlds is from other worlds, involving composition, decomposition, deletion, supplementation, weighing, ordering and distortion.

## Frames of reference are systems of description. There is no direct translation; our knowledge is descriptions of descriptions – worlds

Nelson Goodman describes his approach as a radical relativist, tracing the lineage of his ideas through Kant to C. I. Lewis, whose own teachers included William James and Joshua Royce (Misak 2013: 211).[150] Goodman (1978: 2) asks how can two apparently contradictory true statements, 'the sun moves' and 'the sun does not move' be true? He says they do not have truth-values, as they are incomplete elliptical statements, they obtain a truth-value within a particular frame of reference. The relevance of a frame of reference is less the particularities of the described, than the "systems of description" in which a particular frame of reference "belongs". We cannot describe a statement outside of a frame of reference, outside of a system of description, we can only describe "worlds" (1978: 3). "We are confined to ways of describing whatever is described." Goodman (1978: 3)

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[150] Cheryl Misak (2013: 211) puts that there is no reason to believe that Goodman read the classical pragmatists directly but that his pragmatism, it can be surmised came through his teacher C.I Lewis.

**There is no foundational knowledge, or essential substances. What we can know is how things function.**

Goodman (1978: 6) says, after Gombrich (2012 [1959]: 12) there is no 'innocent eye' (or given). While he takes foundational knowledge and the notion of essential substances to be a "false hope", he asserts in an overtly pragmatist sentiment, that what *can* be said is how things function. Stuff – waves, mass, phenomena of all types are is made along with the linguistic worlds already made. Making and the description of worlds is "remaking".[151] Rather, he says, (1978: 7) the questions should be "...how worlds are made, tested, and known?" What are the "relationships among worlds" and what are the processes involved?

**The making of worlds is from other worlds, involving composition, decomposition, deletion, supplementation, weighing, ordering and distortion**

Much "worldmaking" Goodman (1978: 7-8) argues, takes place in the categorising and re-categorising, the making of parts and wholes. This process usually occurs with the "application of labels", linguistic naming and describing, in the form of words, gestures and pictures, "temporally diverse events" (1978: 9) are brought together under one name and "identified" as subject or object. Eating various foods, for example, are separated into fruits or breakfast or raw or healthy. Worlds can be transferred into different modes – a name for a taste predicate can be transferred in a sound. Here connections can be made with James'

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[151] Wittgenstein (2009: 23) makes a similar point, speaking occurs within "language-games".

(1912: 23)[152] radical empiricist argument, that it is thoughts that are "talked of" as existent objects or thoughts about objects (subject and object), and James' (1909 PU: 235)[153] argument that theories chop up the world into parts.

"Worldmaking" (Goodman 1978: 7-16) involves the processes of: "Composition and Decomposition", naming and categorising; "Weighing" – relating how the classes are sorted differently in different worlds; "Ordering" entities into classes, that may be the same as one description but in another the sequence varies and as a result so does the emphasis; "Deletion and Supplementation" occurs in "making one world out of another", in the re-categorisation at various levels of perceiving, conceptualising and remembering; Description involves subtracting and adding to what is described in one instance and as a result "Deformation" occurs in its remaking. In all domains of life, from the arts to science, deletion and supplementation occurs.

> "Replacement of a so-called analog by a so-called digital system through the articulation of separate steps involves deletion: for example, to use a digital thermometer with readings in tenths of a degree is to recognize no temperature as lying between 90 and 90.1 degree." (Goodman 1978: 15)

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[152] "Its subjectivity and objectivity are functional attributes solely, realized only when the experience is 'taken,' i.e., talked-of, twice…" (1912: 23)

[153] Abstract concepts are only "snap-shots" (1909a: 235) taken from our experience and while useful they have no value in themselves.

> "…so the system grows completer, and new reality, as it comes, gets named after and conceptually strung upon this or that element of it which we have already established. The immutability of such an abstract system is its great practical merit; the same identical terms and relations in it can always be recovered and referred to change itself is just such an unalterable concept." (James *A Pluralistic Universe* 1909: 235)

In an echo of James, Goodman (1978: 18) we have many different realities – different worlds, depending upon our present purposes. What is true of reality is also the case with knowledge – our knowledge is of different kinds of worlds.

**Hilary Putman**

1) There can be no "same meaning" between text or data and its interpretation – interpretation is emphasised here, rather than meaning.

2) Assertability – what is said to be the case – is not solely internal to semantic logic of the language but dependent upon the interpreter's interests and the context.

3) Interpretation as correlation.

**There can be no "same meaning" between text or data and its interpretation – interpretation rather than meaning**

After Quine's (1951, 60) "attack" on general rules of assertability, Putnam (1992 [1983]: 77) also rejects that sentences can be taken to have the "*same meaning".* Talk he argues should be of interpretation rather than meaning. Assertions are context dependent and meaning is relative to a particular interpretation, or the "rules of translation" in Quine's (1951: 26) terminology.

> "Assertibility, to the extent that it is rational, is pragmatic and depends on the entire context." (Putnam 1992 [1983]: 77)

**Assertability – what is said to be the case – is not solely internal to semantic logic of the language but dependent upon the interpreter's interests and the context**

Putnam's (1992 [1983]: 78) use of "entire" context is important here because it makes meaning a one off, there is no identical encounter with a sentence. In response to the question, how can it be the case that the author or others interpret a sentence in the same way, Quine's response is that the interpretation of a sentence is relative to the particular language and the truth conditions that are contained within the linguistic form of a sentence; "is snow white?" – "if and only if snow is white".[154] Putnam questions how it is possible that Quine's response, that posits a logic that is internal to the proposition, can offer objective criteria for truth conditions. Here Putnam draws a comparison with relativist deconstructive literary theory, whom, he says, faces the same criticism, how can a relativist theory be more objective than the other theories that it critiques?

**Interpretation as correlation**

Putnam's (1992 [1983]: 78) response is to say, in accordance with Quine, that there are no semantic rules that can determine the "*same meaning*" and that talk should be of interpretation, but against Quine's (1970: 3) view, that interpretation is indeterminate. Instead Putnam's response is that there are differences between interpretations and interpretation can be "correct" and "relevant" to particular contexts. Putnam rejects that this viewpoint leads to total subjectivism, that the "interests" of the individual would make an

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[154] Putnam draws from Quine's example in Quine, W. V. (1970) *Philosophy of Logic.* Cambridge, Mass.: Harvard University Press. p.3

interpretation correct (a similar criticism levelled at William James by Bertrand Russell in response to his pragmatism). Putnam (1992 [1983]: 79) argues that individuals' "interests" do not all have the same value: an individual may be "deluded" or "silly". A rational interpretation is not the only interpretation, nor can a sentence be taken outside of the context of use, rather after Quine, Putnam says, interpretation is a "correlation" between the author's sentences with those of the current interpreter and their attendant assumptions about the context of the author's sentences.

Putnam (1992 [1983]: 80-81) argues that interpretation of a literary text goes beyond the question, "What is the meaning (truth-conditions) associated with this line?" however, there is no practical difference between a close account of a text and critical evaluation, both are interpretations according to the interests of the individual.

The difficulty of differentiating between the objective and the subjective is that words do not correspond to mind independent facts and concepts do not necessarily refer to external things "…concepts are (at least in part) *abilities* and not occurrences" (1981: 16). Putnam (1981: 22) says it is a fallacy that because we use words and can intend a particular meaning that our intention determines what words mean. Two people can use the word 'I' and refer to two different selves. "The mental state by itself, in isolation from the whole situation, does not fix the reference." (1981: 23)

James' pragmatist conception of truth rejects 'causal' accounts and seeks to modify the correspondence theories by taking truth as a value ascribed in experience, a sequence of specifiable transitions between thoughts, that potentially terminate in the objects to which

they refer. As such, James' account of truth can be taken as a process of interpretation that takes place within the medium of the "experienceable environment". James had characterized individuals' categories of experience "worlds", classes whose members share a logic of acting and influencing one another: the logic physics, of ethics, or of fantasy and fiction. Each world is real "while it is attended to", reality is that which we take to be external to us, yet it is mutable. For James, experience is always mediated by the structure of the brain, our prior experience and sensations are as close as we get to immediate experience, although in recognizing them our concepts act as substitutes for reality (1909 PU: 271-272). Goodman's 'worlds' are further removed from a notion of contact with reality. They can offer a description whose frame of reference is its self a description. Fiction and facts are both descriptions, made and remade. Wittgenstein's (2009: 244) sensations are words learnt as children; names that "replace" tears or toe contacting with a stone.[155] In our "attitudes" towards things, we '*see as*' – a duck or a rabbit. We peer into the wardrobe, *as if* a portal to a distant land. We can perhaps note too, that there is a difference between attitudes that are habitual and those that are intentional-volitional. Putnam's reader of a fictional text cannot derive the "same meaning" as the author or their neighbour, their translations are all interpretations but they can have correlations with one another. For James the flux of experience always supersedes the translation.

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[155] James makes a similar point:

> "…thought proper must  have had an exclusively practical use. Men classed their origin of sensations, substituting concepts for them, in order to 'work them for utility what they were worth,' and to prepare for what might lie ahead. Class-names suggest consequences that have attached themselves on other occasions to other members of the class — consequences which the present percept will also probably or certainly show."
>  (James SP 1911: 63)

**Approaches to fiction**

(1) Fiction as a way of speaking

Peter Lamarque (2010: 2) frames the debate between classifying the relations between truth and fiction in terms of truth and value and the value of truth for literature, rather than truth and facts. The problem for Lamarque is there not one conception of truth or of fiction (2010: 5), poetic truth is not propositional or scientific truth. For Nelson Goodman (1978: 18) fiction and nonfiction can be classified as types of discourse, 'ways of talking'. Worlds are made by what is said. The relation of truth to fiction is what is "said literally" and taken literally, although what is said can also be metaphorical, and metaphorical truths and what is said can be shown, gestured and demonstrated. What is said may be literally false but convey a broader truth.

> "In a scientific treatise, literal truth counts most; but in a poem or novel metaphorical or allegorical truth may matter more, for even a literally false statement may be metaphorically true and may mark or make new associations and discriminations, change emphases, effect exclusions and additions." (Goodman 1978: 18)

The different categories of discourse "confer" reality or fiction on what is said. Hayden White (1981:19) says history is taken as the "discourse of the real", as opposed to the "discourse of the imaginary" or "the discourse of desire"." (White 1981:19). Narrativity connects the real with the true. White takes narrativity (story-discourse) as a way of telling events. The *way of speaking* is distinguished by particular grammatical forms and the role of the pronoun "I", demonstrative pronouns, adverbial indicators such as "here", now", yesterday, tomorrow and

the use of the third person. For White, there is no problem for the status of content, classified as real or imaginary, in fictional narratives. The discourse can "*speak for themselves"*, whereas real events should not speak, "they should not pose as *tellers".* It is when real events are given the form a story, classification is made problematic, says White (1981:4). The role of phone calls in the *The Lost Index* apps moves from telling, to events occurring. The phone call is happening in the experience; it is not being told.

Kendall Walton (1990:98-99) distances the discussion of fiction with that of truth and reality, suggesting that even young children can usually "intuitively" distinguish between stories and reality. However, he acknowledges that the both the fictional language and that pertaining to reality are both [Wittgensteinian] "language games", and that reality, taken as a construct, is another form of fiction. It is the way discourse is performed by the make-believer, rather than the author, that differentiates stories from reality. "Fiction and nonfiction differ more on pragmatic rather than semantic grounds." (Walton 1990: 76) The question for Walton is how we specify the qualities of these types of discourse.

(2) Between telling and temporal structure

Goodman (1981: 110) differentiates between the order of telling and the sequence of events in a story. Events in a story can be reordered in the telling without affecting the comprehension of the sequence of events (The woman in the yellow boots ran over the bridge. The pen was dropped on the bridge). The causal relations can be inferred even without verbal devices employing changes in tense and terms such as 'before', 'then', 'after'. White (1981:19) argues it is at the end of a story that the structure within events (plot and

story relations) is revealed that makes their occurrence coherent. An account of historical events, in White's terms, can only be considered true if it is possible for there to be other sequences of events, from which the true sequence can be distinguished. Conversely, it is this potential for reordering that also makes the authenticity of historical accounts questionable. The form is what confers reality. Goodman (1981: 111) says that while a psychologist's report can read as a narrative when ordered chronologically as a history of events, when reordered as types of symptoms the account becomes an analysis rather than a narrative.

> "Actually, although every narrative will survive some reordering, not every narrative will survive every reordering. Some stories when considered in certain ways are not stories but studies." (Goodman 1981: 111)

The act of making choices in a locative narrative or pervasive game has the effect of configuring the plot in particular direction. Should I avoid that individual in the black shirt that is apparently an enemy agent and risk running out of time? The decisions are factual occurrences in fictional scenario. The narrative structure has two levels of causation: the decisions made on the fly and the authorial composition that orchestrates when decisions will be presented to the participant.

(3) Fiction as *like* reality

In Jerome Bruner's (1986) discussion of the relation of pragmatism to narrative argues that narrative thinking "precludes verification on the basis of their reality or meaning" because narrative is more concerned with verisimilitude as 'truth-likeness' than with verifiable facts. In doing so he (1986: 11) differentiates arguments from stories; arguments try to convince us

of their truth, that may be empirically verified, whereas, stories try to convince of us their truth likeness or verisimilitude (he does not hold that in this sense stories are abstractions of arguments). However, I argue that James' theory of truth is concerned with the *particular* coherence of facts in the context of the individual's existing knowledge and the *currently happening* situation. James (1890b: 293) makes provision for the possibility of facts operating as truth within a novel or imagined scenarios. The imagining of a horse with wings *works* in the context of a narrative but not in relation to the actual living horse in the stable. Wings are true in relation to the particular world they refer to. Can it be said that they have internal coherence within its world?

(4) Ontological status of fictional entities

What are the relations between reader and a participant's attribution of truth and fiction and ontological questions of existence? We can put the question of existence of fictional entities in a logical form: 'does this entity have *x* properties that all entities in the class 'real' have?' Fictional entities in locative narrative may have the same qualities as real entities, if bystanders and other players are taken *as* the characters in the story. White (1981:15) argues that a set of events in a narrative is understood as having significance for each other, they "belonging to the same order of meaning". A rule is required that creates ontological connections and disregards discrepancies, that "translates difference into similarity", "a subject common to all *referents".*

Marie-Laure Ryan's (1980: 418) "principle of minimal departure" says we ascribe fictional worlds to be as close as possible to our own world. Fictional characters exist *within their own*

*world* and we assign truth-values as we would do in our world, based on the information that we have from the text, therefore settling the ontological status of fictional characters. We assume characters to be human beings like us, unless we are informed otherwise. While genre tells us "approximately" (1980: 415) what parts of real world will be shared with the fictional world. 'The principle of minimal departure' operates on whole classes rather than independent objects, and from part to wholes and vice versa, so if a horse is mentioned in the narrative the reader takes it that the fictional world to be like their real world, that the horse has legs and that animals *generally* exist within the fictional world.[156]

We can apply James' (1890b: 290 footnotes) question to the ontological status of fiction, 'does this entity exist in the same space with the other "reals"?'

(5) Pretence theories – what the author does

John Searle (1969: 16), after J. L. Austin (1962), take utterances as the minimal unit of communication and the conditions under which "situated" linguistic communication is successful. In *How to do Things with Words* Austin (1962: 2-8) distinguishes between utterances that are "constative", those that are measured by truth or falsity and those that are "performative" – that produce action. Performative utterances, "I give", "I declare", "I bet", "I

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[156] This point is close to Peirce's argument for characterising our beliefs about existents. If a belief is *determinate* its characteristics inhere within it or is predicated of it or its negative. To affirm that something is a pen is to confirm all the particulars of a pen. To deny that something is a pen is to "vaguely" deny some, or all, particulars of a pen. When a predicate is unanalyzable, for example when knowledge or experience does not permit it (the pen *often leaks*), it does not affect whether the predicate is affirmed or denied, it is an intermediary, "nascent" state. In cases where there is a definite division "or borderline" between affirming and denying the predicate then the concepts of *determination, generality,* and *vagueness,* "re-appear" (Peirce 1905b: 490).

name", are not descriptive and do not report on events, they change something in the situation, they produce action. Success of an utterance is determined by "conditions to be satisfied" (1962: 14-15). There is a conventional procedure of a conventional effect, in particular circumstances, particular procedures are invoked, the procedure is "executed by all participants both correctly and…completely", the procedure is, "…for use by persons having certain thoughts or feelings" and those performing the utterance have those thoughts and that some consequences may follow and there is an intention for that conduct. Austin defines "perlocutionary acts" as utterances that bring something about or achieve something by saying it. In *The Lost Index: Landscape with Figures,* the status of 'you' is important. It turns fictional statements into declarative performative utterances, "You are going on a journey".

In Searle's (1975) application of speech act theory to the analysis fiction he compares a newspaper report with an excerpt from the novel *The Red and the Green* by Iris Murdoch. He states that the journalist making a type of illocutionary act conforms to specific "semantic and pragmatic rules…"

> "(1) The essential rule: the maker of an assertion commits himself to the truth of the expressed proposition.
> (2) The preparatory rules: the speaker must be in a position to provide evidence or reasons for the truth of the expressed proposition.
> (3) The expressed proposition must not be obviously true to both the speaker and the hearer in the context of utterance.
> (4) The sincerity rule: the speaker commits himself to a belief in the truths of a proposition." (Searle 1975: 322)

For Searle, the nonfiction is "serious", in terms of following the rules applicable to assertions, and fiction is "nonserious"; the journalist must commit to these rules whereas the fictional writer has no commitment to fulfil these rules (Searle 1975: 323). He dismisses the

explanation that there are different classes of illocutionary acts, sentences of fact and fiction

perform the same speech acts on the grounds that words have "normal meanings"(1975:

324). For Searle, the emphasis is primarily upon what the speakers (authors) do, they

"*pretend".*  Not in the sense of deception, he emphasises, rather in the sense of *"as-if* one were

doing or being the thing*".*

Stanley Fish (1980: 1022) argues that it is "shared pretense" between parties that have

"discourse agreements" that indicate what can be spoken of as fact and therefore all discourse

is "serious", rather than 'serious' or 'nonserious'. It is fiction, from this position, that instigates

the type of reality.

Marie-Laure Ryan (1980: 407) asks where is the 'I' or other personal pronoun located? In the

case of counterfactual statement, 'I could have found a different pen', the utterance is the

viewpoint of the author and expresses a possible other world where another pen was found.

In the case of the fictionalised narrator, 'I' is the viewpoint of the character. They are fictional

and so is the counterfactual statement that they express. Ryan (1980: 414) argues that fiction

is "an act of impersonation" by the author of a character and reader's job is working out what

is real "in the world of the impersonated speaker". For a character to express a counterfactual

statement within a fictional world, it is "fiction within fiction, of *recurrent impersonation*".

Unlike in the case of nonfactuals that have "markers of irreality" (Ryan 1980: 410), for

example, the pen began to move across the page by itself, in which the viewpoint is expressed

from the real world to that of a different world.

Ryan (1980: 410) says it is not simply the case that some objects are existent and others are not because real facts can appear in fictional settings, rather, non-existent objects can be defined by being members of a set where they have the value true and in which the actual world is not a member.

> "I call an object *x* unreal when the actual world is not a member of the set of worlds for which the proposition 'x exists' takes the value true."
> (Ryan 1980: 410).

Ryan (1980: 413) makes the point that for Searle the most basic act of communication is a speech act and that to retain the "unity" of the utterance, that it comes from one speaker, means attributing both the serious and the "nonserious" utterances to the character, and not partially to the author and partially to the character. The differences therefore, between what is taken to be fact or fiction, cannot be differentiated by the "serious" (author-speech) and the "nonserious" (character-speech). Ryan (1980: 413) says Searle's (1975) account neglects the idea of an alternate possible world.

> "By combining the notion of impersonation with the notion of alternate world, and by assuming that alternate worlds may present various degrees of overlap with the real world, we can avoid the difficulties of Searle's analysis." (Ryan 1980: 413)

The idea of the actual world is for the reader the one to which they belong. The label "actual world" is "relative", for Ryan (1980: 414). The fictional world is one defined by propositions that are attributed as true in the world of "impersonated speaker". The impersonated speaker is often sufficient to guarantee the truth-value however this is not necessarily straightforward. Ryan (1980: 414) argues the role of the reader is to work out which facts are true within the fictional world and those that have the status of possible worlds, of characters' counterfactual statements, their dreams and imaginings, and fantasies of unreliable narrators.

Ryan (1980: 419) divides the category of impersonation between "'impersonating oneself" and "'impersonating somebody else'", identified by personal pronouns 'I' and 'you'. Ryan gives as an example, that if we talk to plants, we are imagining fictional world were plants understand language, however the inferred personal pronoun acts in impersonating oneself in the alternative world where plants understand, rather than impersonating ourselves as another character.

Amie L. Thomasson (2015: 255) says the problem of the relation of truth and fiction is frequently framed as a debate between the anti-realists, who consider truths in fiction to be pretend or make-believe and true only within the story, and the realists who argue that there are truths in fiction that are literally true and truth is not predicated on existence, such as the truth that Sherlock Holmes is a detective. The "artifactual" theory of fiction put forward by Thomasson (1999) says that fiction has internal truths, ideas that are true internally to the text, to world of the story, (in the way that laws, philosophical ideas have internal truths) and external truths, that do not involve pretence and pertain to contexts external to [and continuous with] the fiction, such as the The Eiffel Tower is in Paris. Thomasson (2015: 259) extends this idea by saying characters are fictional not just because they are abstract entities *"like"* fictional works but because in order for a fictional character to be considered as such, an author must use them in "a pretending way".

(6) Participation, interpretation

Ryan's "principle of minimal departure", developed from David Lewis's (1978: 37) account of truth, counterfactuals and fictional discourse, says it is the reader's interpretative behaviour

that designates truth from fiction. Readers construct a world in response to the text that is as close to their own reality as possible; 'horses with wings' (1980: 407) have the features of real horses, plus the addition of wings, that function as wings do. Ryan also attributes the "principle of minimal departure," to the reader's ability to construct representations based on experience, that allows not just semantic interpretation of the text, but for pragmatic inferences to be drawn *between* clauses, for example, 'sometime after the pen rolled beneath the floorboards, the writer began to type'.

In Wolfgang Iser's (1978: 53-54) phenomenologically focused account of reading he argues, that while the category fiction denotes that words are not to be taken as a given reality there is an erroneous assumption that fiction and reality are antonyms. Iser advocates a functional account of fiction that designates texts by do, rather than as an ontological account of what fiction is or what it may mean. Iser's account examines the pragmatics of what fiction does, the *use* of signs, considering the relations between text and reality and between the text and the reader, drawing upon John Searle (1969: 16), after J. L. Austin's, speech-act theory. For Iser, (1978: 55) it is the range of contexts that the text operates within that is important for identifying a text as fiction. Iser (1978: 61) argues that Austin and Searle interpret literary language as leading to real actions or a real context. Iser (1978: 58) points out that Austin (1962: 22) says that "performative" utterances, said by an actor in a theatre, are "used not seriously…[they are] *parasitic* on normal use". However, for Iser, literary language does have real effects.[157] In fiction, he puts, conventions are taken from their usual context. The effects of

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[157] This is a point that James makes,

> "Ether-waves and your anger, for example, are things in which my thoughts will never perceptually terminate, but my concepts of them lead me to their very brink, to the

language are that it "depragmatizes the conventions it has selected" (1978: 61). The pragmatic function of the fictional text causes us to examine the motivations of our actions. Fictional utterances are performative, says Iser, not because they cause readers to act but they cause readers to examine the conventions that have been selected.

The reader (Iser (1978: 66) "build[s]" a linguistic "situational frame" that contains both the text and themselves and is necessarily variant from the given text. Reading is a process, a "dynamic interaction between the text and the reader" in "self-regulating system" where there is "constant feedback", a response to the information that contributes what is perceived. From Iser's 1978: 68) perspective, reading "'happens' like an event" and these events are "paradigms of reality", that "designate a process".

> "...it is paradoxical in so far as the fictional text neither denotes a given
> reality, nor caters overtly to the possible range of its reader's
> dispositions. It does not even relate to a cultural code common to itself
> and its readers, for its reality arises from...the nature of reality itself"
> (Iser 1978: 67-68)

Iser (1978: 68) says reading "has the character of an open-ended situation" with the concreteness that arises from the attitude to adopt towards the text and (1978: 73) fiction is not the opposite of reality but "the compliment".

> "Reading is characterised as something happening and – and happening
> has the hallmark of reality...the text can never be grasped as a whole-
> only a series of changing viewpoints, each one restricted in itself and so
> necessitating further perspectives. This is the process by which the read
> 'realises' an overall situation." (Iser 1978: 68)

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chromatic fringes and to the hurtful words and deeds which are their really next effects."
(MT 1909: 119)

Expanding from an analytical philosophical approach to the reader's interpretation of texts, Richard Gerrig's (1993: 5-6) cognitive framing of fiction moves the emphasis from talk of classes in which propositions fit within narrative, to talk of the types and function of thinking involved in reading and the experience of narrative worlds, positing casual connections between experience and cognition. Gerrig argues that psychological engagement with narrative texts, in the broadest sense, that can seem to "transport" readers-audiences into the world of a story. This affect is partially achieved through the reader's construction of the narrative world by drawing inferences, logical conclusions based upon the propositions the text presents and narrative conventions "merging" with memories of prior real-world experiences (1993: 27).

Gerrig states that engagement with narrative shares common cognitive mechanisms with every-day communication, "*narrative comprehension…a microcosm of processes and memory representations that guide our existence"* (1993:27). The adoption of other viewpoints and timeframes is a feature of fictional and nonfictional linguistic communication; Logical reasoning requires imaginative simulation of possible alternative states and causal relationships between states. *"Propositional* representations" characterise readers as extracting units of meaning from narrative. "*Situation models"* supplement the reader's interpretation of sentences with their "real-world knowledge" by constructing "coherent representations of the situation" in response to narrative depictions. It is the construction of the "*situation model"* that allows the reader to verify statements pertaining to the text as true or otherwise (Gerrig 1993: 5-6).  The experience of being transported is not a question of belief in the particulars of a story or the distinction between fiction and nonfiction but that transportation is "…*virtually inevitable…with limited conscious effort…"* A reader constructs

inferences in response to a text, based on "*schematic expectancies*" (Gerrig 1993: 328) of the *type* of structure and content, while anticipating that the particular utterance is unique (Gerrig 1993:170).

In Gerrig's (1993: 21) use of the performance metaphor, reading is characterised as "gap-filling performance", denoting the reader's role in creating the text from the memory of "*facts and emotions*" (1993:17).[158] Gerrig (1993: 66) identifies two interrelated aspects of the performing metaphor: the reader's "inferential" and "participatory" construction of the text. The 'inferential' response denotes the act of 'filling in' the details implied by the text, for example, the reader may assume (erroneously or otherwise) that characters eating dinner at a table may be sitting on chairs. The 'participatory' response denotes the reader's wish to *"intervene"* (1993:66) in a story by imagining causal consequences of situations within the text. This desire may be linked to the reader's emotional reaction, such as suspenseful situation prompting feeling of hope that the character will not eat the poisoned apple.[159] Gerrig's term "*replotting*" describes how the reader considers alternative plots in response to the outcome of a story (Gerrig 1993: 90).

Peter Lamarque (2010: 6) distinguishes between "*explicit* propositional content" – that which it taken to be the "indicative" semantic content of sentences (She is drinking coffee in the café alone); and "*derived* propositional content" that which a reader constructs, derives or fills in" in response to the text (we infer that the man didn't catch up with her on the bridge as she is drinking coffee alone).

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[158] Arguably the reader is drawing on their memory of other texts in addition to their own experiences.

[159] Gerrig's theory of participatory response is discussed further in chapter X on narrative.

I agree with Gerrig on Searle's neglect of the reader's role in the definition of fiction and concur broadly with the conclusions he draws from psychological studies of reading that show reader's have difficulty in distinguishing between fiction and nonfiction when texts are taken out of context, indicating that the semantic content and the act of speaking is not sufficient to distinguish fiction from nonfiction. However, I would add that in non-experimental conditions, readers' particular *use* of the text cannot be separated from the language-games in which it operates and the reader's broader contextual knowledge[160] which affects their classifying statements as 'facts', obtain their status from the world of the reader's existence and those internal to fictional world. There are also the 'fictional-facts' that readers and participants derive from other narratives that exert an intertextual influence on the reader's interpretation (Alex Ryder is a young 'James Bond'). As Barthes stated,

> "The text is a tissue of quotations drawn from the innumerable centres of culture" "...a 'multi-dimensional space in which a variety of writings, none of the original blend and clash..." (Barthes 1977: 146)

Kendall Walton's (1990:72) defines fiction not in terms of the semantic relations between words or as correspondence between words and the world but as a function of representations to act as a "prop" in a game of "make-believe". Make-believe is a "cognitive function" (1990: 94) – what an "appreciator" does. He rejects Searle's (1975: 325) account that fiction is produced by speech acts, that *authors pretend* to make assertions and perform illocutionary acts through the voices' of their characters, "*as-if*" they were doing so, on the grounds that this argument it is not transferable to other media. Walton says authors,

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[160] This contextual knowledge includes a range of extraneous details: the book's cover, title, genre etc., and in other media: the environment of the cinema, theatre, launching the app etc.

painters, filmmakers, etc., are not pretending to make truth claims and what the author

imagines they think they are doing is irrelevant in the appreciator's designation of a work as

fiction or non-fiction. Making works is not pretending, rather it is the production of "props" to

be used by others in "imaginative activities" (1990: 83). The concept of story, he (1990: 87)

claims, is attached to it being an *object*, whose use is a prop.

Walton (1990: 102) argues that while fiction is "entirely independent" of straight forward

reporting of events, it has "nothing essentially to do with what is real, true or factual", or

"serious" discourse; what is important in distinguishing truth and fiction is how the fictional

world "generates fictional truths" that pertain to it (1990:102). Readers differentiate between

fiction and nonfiction by taking the statements in nonfiction - a newspaper report, scientific

journal, recipe, etc. – to be potentially verifiable (1990: 71). However, Walton (1990:102)

argues that each discourse has a reality outside of "*itself*" – the particular "culture's

discourse", that a truth must in some way must correspond, however that reality may be

constructed. The fictional is subject to what is understood as 'truth' in a particular cultural

context. This point dovetails with Ryan's 'principle of minimal departure', that the fictional

world is seen as close as possible to the reader's own world.

Ryan (1980: 405), in parentheses, importantly points out that the truth-value of all

statements is interpreted in "the actual world". However, I argue that it is this point that is of

primary import to this debate. It is this actual world context that James emphasises; the

actually happening event of narrative interpretation, that brings with it and is inseparable

from the "experienceable environment" (MT 1909: 42). When we make the distinction

between fact and fiction it is in the context of the particular environment and all the

information that is currently at our disposal, whether drawing upon logical rules or 'intuitive' responses. We have no difficulty, says James, conceiving of movement in lived reality. It is only when it is broken down and subjected to analysis that the philosophical puzzle becomes conflated with lived reality. This has further resonance for locative narrative where it is not just the interpretation that is *happening* but the fictional place in which participants act.


(7) Difference between possible worlds and fictional worlds

It is in our happening experience there are many worlds that our thoughts operate within (James 1890b: 293). When we read a narrative do we assign our thoughts the categories of fiction or nonfiction? Even when we directly identify our thoughts as pertaining to fictional truths, there may have practical 'real' consequences for us, such as changes in our physiology, breathing, salivating, heart beat. We can feel elated or anxious as the suspect disappears across the bridge. Goodman (1978: 104) rejects that fiction creates possible worlds, rather he argues fiction creates actual worlds, metaphorical worlds (Goodman 1978: 104). The "merely possible" worlds of fiction "lie within the actual worlds". Fiction and nonfiction "operate" within actual worlds.

Ryan (1980: 404 footnotes) defines an alternative possible world, as one that is imaginatively but "not materially possible". How logic operates in fictional possible worlds she says is debatable, imagined places may not perform according to laws of logic in this world, circles may be square in an alternative world, however, propositions that describe fictional possible worlds are not true of all worlds and therefore they are unlike modal operators [if not, then: necessity and possibility]. Ryan defines a fictional "alternative world" contains "at least one

proposition" that has a different truth-value to that of "this world and reality". Ryan (1980:

419) says not all utterances involve imagining a possible world, such as, 'Socrates is mortal',

but when speech acts involve impersonation there is reference to another world.

Kendall Walton (1990: 64) seeks to distinguish between 'possible worlds' that he defines as

cluster of propositions that are true of that world, and 'fictional worlds', that unlike possible

worlds, can be "usually incomplete" and "sometimes impossible". Walton argues that fictional

worlds can contain propositions that are not true – science fiction says time travel is possible,

but it is untrue.

**Conclusions**

James' pragmatist conception of truth rejects 'causal' accounts and seeks to modify

correspondence theories, by taking truth as a value ascribed in experience, a sequence of

specifiable transitions between thoughts, that potentially terminate in the objects to which

they refer. As such, James' account of truth can be taken as a process where meaning is made

within the medium of the "experienceable environment". James characterizes individuals'

categories of experience as "worlds". These can be described as classes whose members share

a logic of acting and influencing one another, the logic of physics, of ethics, of fantasy and

fiction. Each world is real "while it is attended to", reality is that which we take to be external

to us, yet it is mutable. In the *The Lost Index, No.1:  Landscape with Figures* the participant is a

museum visitor, a player of the game, and if an attitude of supposition is adopted, a character

in the story. When answering the phone, they do so as a player and as a character, however if

the call happens to be from 'outside the game', the relations to the phone move from being a prop to the world of technology to the communication of social relations – a different context.

Goodman's 'worlds' are further removed from a notion of 'contact with reality'. Worlds can offer a description whose frame of reference is its self a description. Fiction and facts are both descriptions, made and remade.

For James, experience is always mediated by the structure of the brain, our prior experience and sensations are as close as we get to immediate experience, although in recognizing them our concepts act as substitutes for reality (1909 PU: 271-272). Putnam's reader of a fictional text cannot derive the "same meaning" as the author or their neighbour; while their translations are all interpretations, there may be correlations between them. For James, the flux of experience always supersedes the translation.[161] In *The Lost Index: Landscape with Figures,* some facts are true only within the story, that you are a 'human drive', that there exists a church interior, box and contents, but they are also potential actually imagined events. James' ([1878] 1920: 60) assertion that beliefs occur *in*-action allows for the movement between these contexts to be fluid. Experientially worlds are nested within one another with truth-values varyingly assigned. It is our particular contextual relation to these spaces that affects whether we take them to be real or imagined.

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[161] "Reality consists of existential particulars as well as of essences and universals and class-names, and of existential particulars we become aware only in the perceptual flux. The flux can never be superseded. We must carry it with us to the bitter end of our cognitive business, keeping it in the midst of the translation even when the latter proves illuminating, and fall back on it alone when the translation gives out. 'The insuperability of sensation' would be a short expression of my thesis." (1911: 78-79)

Wittgenstein's (2009: 244) sensations are words learnt as children; names that "replace" tears, or a toe contacting with a stone.[162] In our "attitudes" towards things, we '*see as*' a duck or a rabbit. We peer into the wardrobe, *as if* a portal to a distant land. We can perhaps note too, that there is a difference between attitudes that are habitual and those that are intentional-volitional. The painting in *Landscape with Figures* has a dual function as a theatrical prop within the narrative and as an aide-memoire in the memory game, functioning as 'magical' object rather than a literal doorway to the outdoors. James (1907: 203) says truth is a value in experience. Our beliefs about the world are mostly unverified but hang together in a concatenated structure, from one to another occurring in-action.

As Ryan, White, Putnam and others point out the placement of personal pronouns signal to readers who is speaking. As Gerrig (1993: 101) notes, if contextual information is removed from the reader then the content and grammatical structure alone is not sufficient to determine the ontological status of the speaker. The act of interpretation of the status of fiction involves semantic content in combination with the particular instance of its use, use that importantly brings with it *context* in different modes (spatial, temporal, social, subject specific, etc.). Context, or what James refers to as the "experienceable environment", is arguably what allows us to make distinctions, to metaphorically stand back from the scene and see the picture frame, know that we are in our cinema seat and not to run, even when the

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[162] James makes a similar point:

> "…thought proper must have had an exclusively practical use. Men classed their origin of sensations, substituting concepts for them, in order to 'work them for utility what they were worth,' and to prepare for what might lie ahead. Class-names suggest consequences that have attached themselves on other occasions to other members of the class — consequences which the present percept will also probably or certainly show." (1911 SP: 63)

3D zombie lunges at us. Playing with context is a strategy that creators of fictional places have long since recognised, as Greek trompe I 'oil painters attempted to erase the context of paint and merge with existent building and as James noted in his account of panoramas,

> "…those cunning circular panoramas that have lately been exhibited, where the real foreground and the painted canvas join together." (1912 [1904]: 30)

Reality, in our experience, is what we take to be existent. While, the attribution of the status of 'the real' can be ambiguous when there are slippages of relations to context. We can say an object is 'known-as' real because it *functions* as a real pen, while some ideas can have a 'reality-feeling' despite being vague or 'almost unimaginable' (VRE 1902: 58). Words can also have a "feeling of familiarity and reality" (James MT 1909: 31-32), *as if* we could snatch a look at their referent, if they weren't just out of sight…*the flash of her while coat as it disappears through a door*…The context of a sentence takes the word in direction that a singular word may not, meaning is dynamic, there are "*feelings of tendency"* (PP 1890a: 254), "felt in the fringe" (PP 1890a: 265), as satisfying or unsuitable…*pushing the pen inside his jacket he remembers that he's seen it somewhere before*… James (PP1890b: 45) says the difference between imagination and memory is we attach a date to those thoughts. We are constantly experiencing things and events not present but their reality for us is as memories that happened to us, or was it in that book we once read? James (WB 1897: 264-265) takes the "continua of memory" to be our "personal consciousness", it is what links our experiences together. When we adopt the supposition – *as-if* – the events narrated where existent, attitudes can potentially to 'tip-over' into belief, and representations can have a "reality-feeling" (James 1902: 58).

What descriptions can be made of the mechanisms of creating context? What points of transition are there between contexts? Our reports can only be descriptions, other worlds...

**Case study 3: *The Lost Index - The Turning***

Developing the eighth prototype, *The Lost Index: No. 2, The Turning* (version 1, treasure hunt, with buttons)

*The Lost Index: No. 2, The Turning* builds upon the findings of case studies 1 and 2 to further explore the situating of story worlds with existent locations and locative narrative modes of engagement. Playing with context and dramatic tension created by sound design is considered in relation to taking part in challenges embedded within the narrative.

Following the science fiction narrative premise of *Lost Index, No. 1: Landscape with Figures*, in this scenario the museum has a fundamental, yet covert, role in the stability of the universe. Malevolent forces have removed an index held in the museum, crucial for maintaining the order of things, causing objects to become 'uncertain'. These uncertain objects have been placed in the museum's store in an attempt to control their effects but the pressure mounting in the museum can be felt in the building itself. Those in power hope that by rebuilding the index the equilibrium can be regained. It is a race against the clock to identify the uncertain objects by matching them with those labelled in the museum. Participants have to find the listed objects and their numbers, enter them into an onscreen index, while avoiding (unseen) enemy agents.
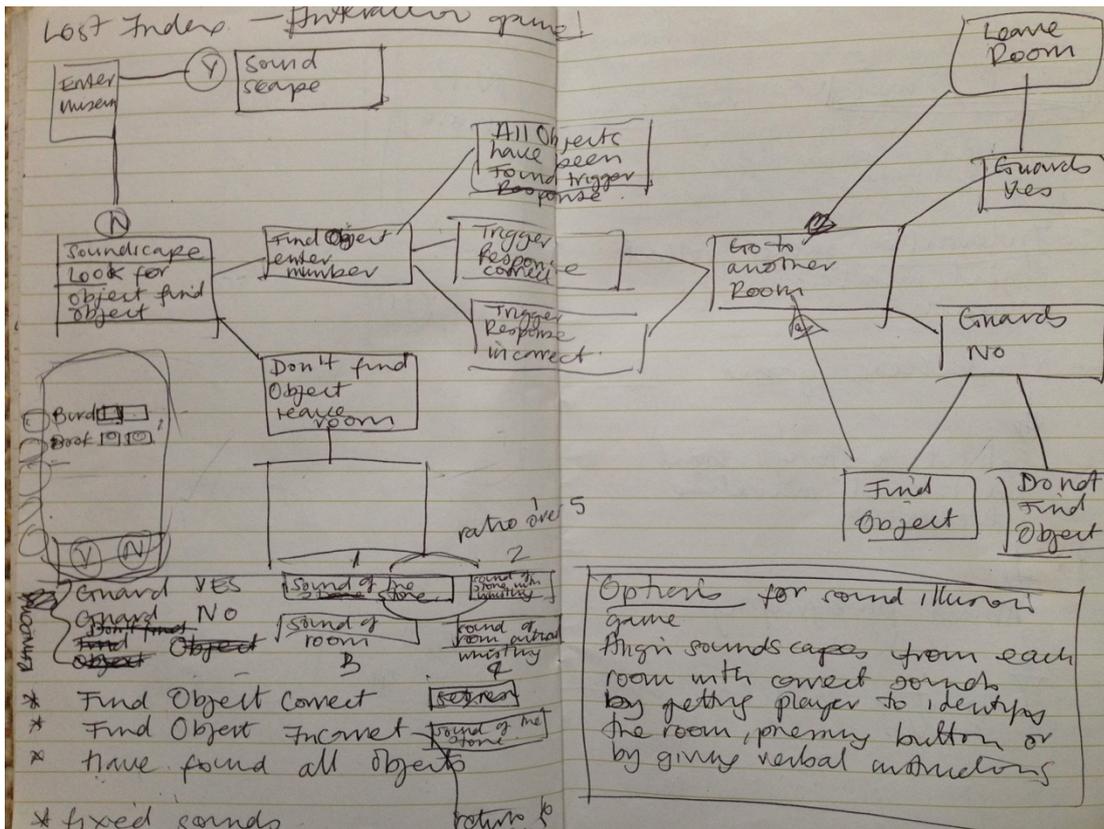
**Fig. 22** *The Lost Index, No. 2: The Turning,* for Plymouth City Museum and Art Gallery, version 1, sketch of initial interaction design.

The back-story and the app's instructions are introduced by the phone ringing. A recorded message informs the participant they are under surveillance, and their help is required to rebuild the lost index. As the phone call ends, an on-screen, military styled[163] index appears with a list of four objects that could be found somewhere in the museum, accompanied by a number located nearby that could be entered into the index. These objects are 'randomly' generated from a potential twenty-five objects listed in the app's database.

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Participants begin their search by pressing a button to indicate when they entered a new room. The on-screen device indicates if an object from the list is located nearby. Selecting the room button also triggers the crossfade of the room-specific soundscape. During the 'race' to complete the task the sound of someone whistling seems to emanate from nearby (recorded spatial sound that is triggered at set times). This acts as warning from 'friends' that participants are (apparently) being followed and that they are required to return to the entrance hall. This obstacle acts a little like getting the 'jail card' in monopoly, making the task more challenging to complete within the time limit. A selection of 'randomly' generated phone calls also interrupt the search and presented 'further narrative content. The on-screen clock indicates the available time left to complete the task.
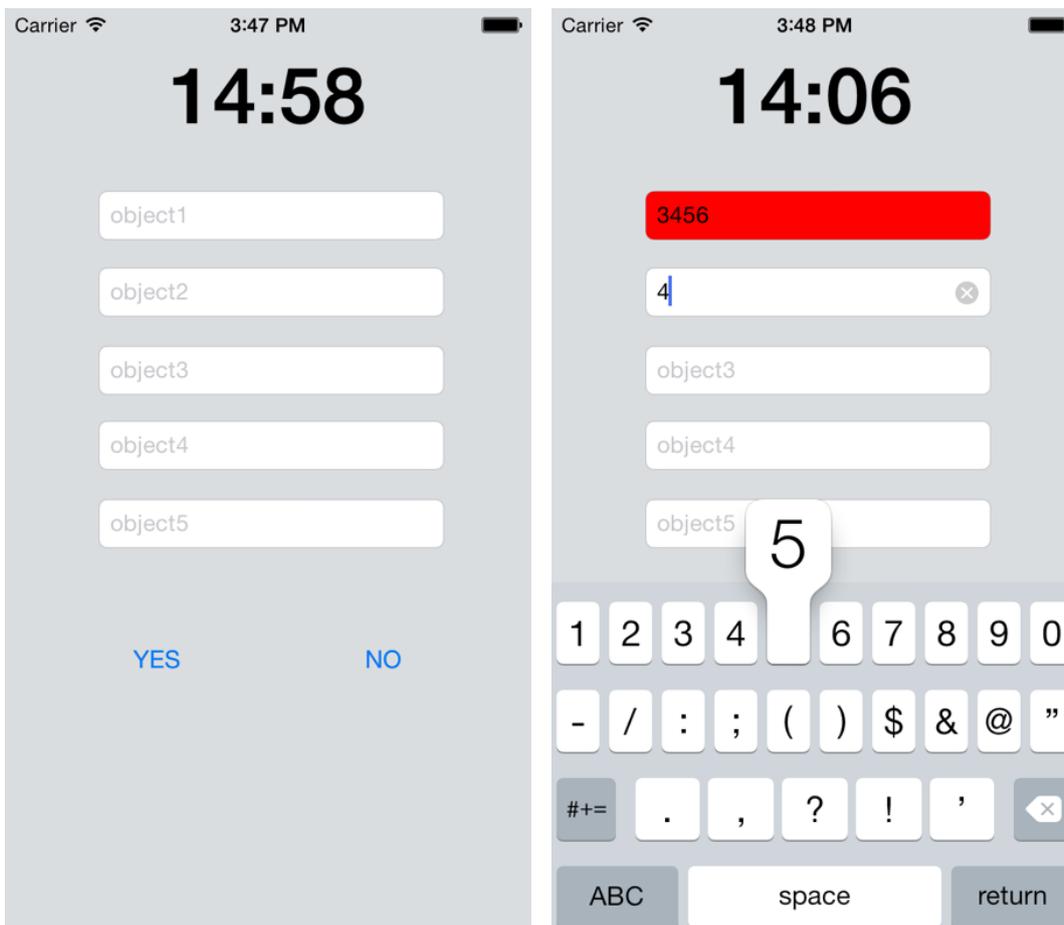
Fig. 23 *The Lost Index, No. 2: The Turning*, version 1 'treasure hunt with buttons', screenshots from app prototype showing timer and index input fields.
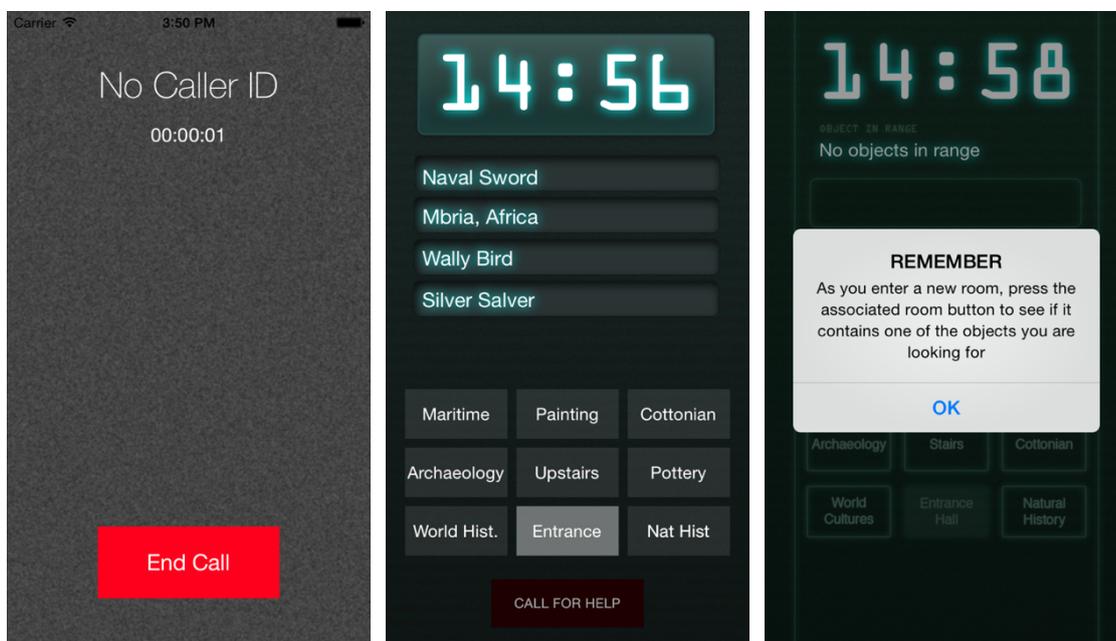


Fig. 24 *The Lost Index, No. 2: The Turning*, version 1 'treasure hunt with buttons', screenshots from app prototype showing simulated phone call from fictional character, and early user interface designs.

The agent's phone calls, appear to come from a small office, in contrast to the sounds of the museum. Soundscapes that enhances the ambient sounds in the museum create atmosphere, making the ordinary seem strange. Binaural recordings of the different gallery's specific acoustic qualities were layered with key sounds, virtually positioned in the rooms, such as, footsteps, the voices of museum visitors and the museum guards' walkie-talkies, using the composition process evolved in *The Letters*. The museum store soundscape was composed from binaural and stereo recordings made in the existent museum store featuring movable shelving, heating, light switches, footsteps on the ceiling and unwrapped objects. The striking of a metal bottle is looped to become the 'uncertain objects' rhythmic pulse. The store soundscape is heard simultaneously with the gallery soundscapes. At first it is barely perceptible but as time ticks away over fifteen minutes, the volume increases, as does the

complexity of layered sounds. A slider mechanism was used that begins with 100% gallery

sounds and decreases as the store soundscape increases. [164]

See Appendix 1: **Figs. 22, 23, 24**. *The Lost Index, No.2: The Turning* (version 1, treasure hunt

with buttons) Design Table

## Summary and Jamesian relational analysis

In the first iterations of locative narrative *The Lost Index, No.2: The Turning,* the narrative

scenario was delivered by a single phone call that occurred within a couple of minutes after

the launch of the app. Participants[165] reported that they felt the call to be too long but also

that the story should develop beyond the initial premise and that more narrative content was

desirable during the experience.

Now we can make an initial description: *relations to the experience of imagining, relations to*

*imaginary objects, relations to knowledge, relations to emotions* and to aesthetic *values* are

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[164] EW outlined the slider mechanism and James Brocklehurst implemented the code. The idea of a slider mechanism was suggested by Shane Myrbeck at Arup, San Francisco, April, 2012, in the context of a different discussion concerning Pure Data objects.

[165] In addition to EW and JB, fourteen students aged 16-21 and two teachers aged 35-40 tested the second iteration. This group was able to understand the narrative premise and game rules without further instruction.  They provided feedback via questionnaires this was not as detailed as that recorded using semi-structured interviews.

The third iteration was tested by nine museum staff aged between 36-56 who generally found the narrative confusing, the participation mechanism hard to understand and the sounds either too loud or too quiet. A couple of these participants found the game "stressful". These issues are detailed in Appendix 1, figs 25-27.
Participants in the 16-21 age bracket generally were able to describe the narrative premise and had no difficulty with the participation mechanism, in contrast to some participants in the 40-60 age bracket reported the opposite types of experiences.

aspects of the experience of engaging with story in locative narrative. In order to take the analysis beyond the labelling of different categories, the relations and qualities can be specified with a spectra of descriptors, where a range can indicate the extent to which a descriptor is relevant and also a ratio between the different relations (see chapter 6). The aim of this type of analysis, is not to create a verifiable empirical metric but as a method of articulating aspects of locative narrative experience and to make speculative interpretations concerning of their connections, from which hypotheses can be formulated and implemented within the design process and create speculative narratological analyses.

The hypotheses in this case was that shorter but a greater number of phone calls that expanded the narrative scenario into a story might address the comments of the participants. In subsequent iterations the introductory phone call was reduced in length and further phone calls, 'randomly' generated from a database of nine possible fragments were interspersed throughout that developed the storyline to some extent.

Logging the searched for items in the on-screen index resulted in seeing their nearing the completion of the task in relation to the decreasing time on the on-screen clock, consequences *explicit* to the participant. Some objects and numbers where intentionally difficult to find and others were easier. Some 'trick' items were included such as the mineral 'fluorite', that appears numerous times in the same cabinet with different numbers, requiring participants to repeatedly try to enter the correct one. To encourage the exercise of volition an on-screen clock indicated how long was left before 'structural damage' to the building, 'the turning', was going to occur. Student participants and those familiar with playing screen-based games repeatedly referred to the time limit as engaging and as contributing to the narrative tension.

While those who declared themselves unfamiliar with mobile or video games commented that they found the experience "stressful", rather than exciting. The connections between *relations to emotions* and *values* such as *knowledge* and *skills* is inferred and a potential starting point for experimentation.

To indicate the (imaginary) 'turning effects' on the museum, participants were asked to look up and observe the movement above them. In order for this fictional conceit to prompt *feelings and value of interest*, an attitude of supposition (*relations to the experience of imagining*) (*relations to belief*) (*relations to imaginary objects*) sufficient aids to imagining were required, such as verbal suggestions, recorded sounds and the 'reinterpretation' of ambient sounds and the shaping of the context in which these strategies were experienced. While some participants adopted the supposition that structure of the museum was moving and found it intriguing, there were those who rejected the idea as ridiculous, but interestingly enquired if there really where problems with the building! (*relations to belief*). Those were generally not engaged in the experience tended to reject the suggestions of movement.

Moving from room to room searching for objects, is a change to the customary experience of the museum. While participants were aware of the recorded sounds and often questioned what they took to be the real and the recorded, their attention was often directed away from incongruity (*relations to rationality*) (*relations to knowledge*) (*relations to belief*) and towards completing the tasks. The focus of attention was reported as changing over the duration of the experience. The search, the clock ticking, the increasing intensity of the stores sounds signaling impeding disaster and other visitors in the museum, assumed varying priority for participants. Engagement with the narrative world was reported as transitory or sustained.

Some participants reported that were became engrossed in the story and that they forgot they were 'playing a game'. They did attribute some sounds as real, which afterwards they realized were recorded. However, a greater degree of participant credulity is not impossible, as Jane McGonigal (2003: 4) suggests, players of pervasive games "*perform"* belief *as-if* they are real because it has particular benefits for them to do so, such as feeling satisfaction with their ability to maintain immersed in the experience. They may even further "fictionalize" their reports of their experience as believing it was really happening because this can extend the play experience, however impossible *actually* believing in the "virtual reality" is – "[it] feels real" (McGonigal 2003: 16). The participant's attitude towards the experience can negate logical contradictions of being present day and 1925. Adopting an attitude of 'imagining' and *wanting* to be in a fictional place, distinguished participants' responses, such as "*I enjoying imagining." "I hate these kinds of things".*

Different orders and foci of engagement exist within *The Lost Index, No.2: The Turning*. Sounds that initially seemed prominent to the participant were reportedly less conspicuous later, when players were running out of time and trying to find the object. Soundscapes were frequently reported as "*eerie*" and difficult to distinguish between recorded and non-recorded sounds, exhibiting the perceptual aspect of *the metaphor of multi-stability*. Pressing an on screen button to indicate which room the participant had entered, while not overtly signalling that it triggered the soundscapes, as the cross-fade on the sound was very gradual, it was an action that participants often forgot to do when they were searching for objects (*relations to attention*) (*relations to rationality*) (*relations to volition*). A couple of people visited the same rooms repeatedly, alerting them to the fact that they were listening to recorded ambient

sounds, particularly those that contained distinct voices (*relations to knowledge*) (*relations to belief*). Others worked out that they could trigger sounds without going to the rooms by pressing room buttons randomly. This limitation of the navigation mechanism was addressed in subsequent prototypes[166].

Developing the ninth prototype, *The Lost Index, No.2: The Turning,* version 2, treasure hunt, with Bluetooth (version 2, Bluetooth): Published, iTunes

It was important that the participant experienced a seamless transition between the layered ambient sounds as they move between spaces, so that sounds seemed to be emitting from the galleries, rather than from their mobile device. In order negate the link between triggering sounds with pressing buttons, as was required in the last iteration, unobtrusive Bluetooth Low Energy 'iBeacons' were positioned in the galleries. These small battery-powered devices transmit a signal that the participant's phone can detect, enabling the app to locate itself.

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[166] See Appendix 1 fig. 24 for details of this issue.
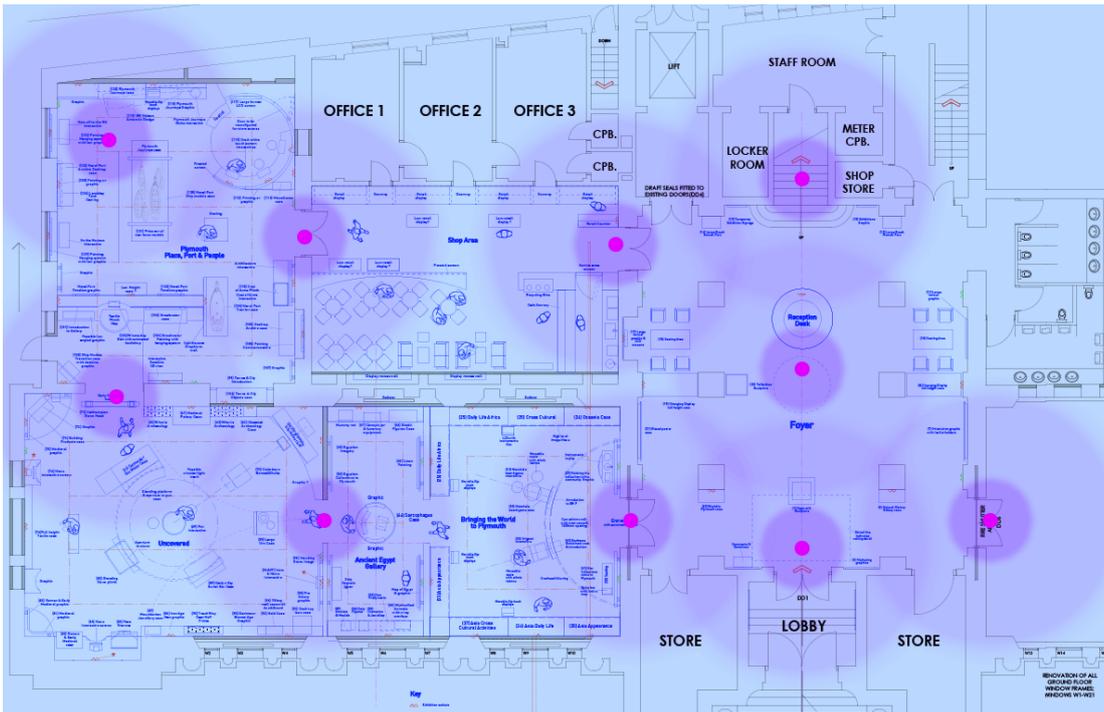
**Fig. 25** *The Lost Index, No. 2: The Turning*, version 2 'treasure hunt with iBeacons', initial plan for location of iBeacons in relation to rooms in the museum.



**Fig. 26** *The Lost Index, No. 2: The Turning*, version 2 'treasure hunt with iBeacons', iBeacons being installed in the museum.

The participant's phone was transformed into a fictional device, a 'volatility meter', situated within the narrative as a means for locating the missing objects. This device was linked thematically to the genre of the narrative, and drew stylistically from sci-fi user interfaces,

radar screens and LCD displays. The physical phone again was a functional prop within the story, indicated by app's visual interface, its ringing and vibrating. The radar screen identifies the participant's current location if any of the objects are in range. The 'Index', is accessed via button on the 'radar' screen that contains a list of the missing items.



**Fig. 27** *The Lost Index, No. 2: The Turning*, version 2 'treasure hunt with iBeacons', screenshots from prototype app showing early and final user interface designs.

**Fig. 28** *The Lost Index, No. 2: The Turning*, version 2 'treasure hunt with iBeacons', app in use.



**Fig. 29** *The Lost Index, No. 2: The Turning*, version 2 'treasure hunt with iBeacons', still from video demonstrating app in use. https://vimeo.com/108626316

See Appendix 1 for **Figs. 25, 26** and **27** *The Lost Index, No.2: The Turning.* Version 2, treasure hunt, with Bluetooth: Design Table

## Summary and Jamesian relational analysis

In contrast with *LociOscope, The Letters*, and *The Lost Index No.1* all of the locations in the story world of *The Lost Index, No.2* were synonymous with the physical location of the museum; participants' *relations of presence* to the 'worlds' (James 1890b: 293) of the 'physical', of 'common sense' and to the world's of 'fiction' occupy close spatial and categorical proximity.  This close proximity between worlds motivated the interaction mechanism, the sound and interface design and app functionality.

It was important that the participant experienced a seamless transition between the layered ambient sounds as they move between the museum rooms, so that sounds seemed to be emitting from the galleries, rather than from their headphones and mobile device (*relations to belief*) (*relations to perceptual objects*) (*relations to imaginary objects*).

In order negate the link between triggering sounds with pressing buttons, as was required in the last iteration, the unobtrusive Bluetooth Low Energy 'iBeacons' were positioned in the galleries that transmit a signal that the participant's phone can detect, enabling the app to locate itself. The functionality of the app interface linked thematically to the genre of the narrative and drew stylistically from sci-fi user interfaces, radar screens and LCD displays. Building on the ideas developed in the previous case studies, the physical phone again was a functional prop within the story, indicated by app's visual interface, its ringing and vibrating. The radar screen identified the participant's current location if any of the objects were in range.

**Case study 4: *The Lost Index: NATMUS,* National Museum of Denmark, Copenhagen & The Diesel House**



**Fig. 30** *The Lost Index: NATMUS,* for The National Museum of Denmark, exterior of the museum.

Developing the tenth prototype, *The Lost Index: NATMUS*. Version 1: Expanded story.

Published on iTunes, December 2015[167]

What emerged from the development of *The Lost Index, No.2: The Turning* was that some

participants found the app enjoyable, many reported misperceptions and engaged in

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[167] This very recent locative narrative meant limited opportunity for gaining feedback from participants. Re-siting of this locative narrative for the purposes of further testing and analysis will form the next stage of the speculative development.

supposition and others acted out those suppositions. Participants frequently commented that they would have liked more of the story or that they thought that the premise was aimed at a younger age group. The opportunity to focus on the world of the story and the narrative arc arose in the development of *The Lost Index: NATMUS* to feature in the 8th International Conference on Interactive Storytelling in Copenhagen. Collaboratively developed with James Brocklehurst producing the code and the visual interface, *NATMUS* is sited across two locations in Copenhagen, The National Museum of Denmark, and The DieselHouse museum.



**Fig. 31** *The Lost Index: NATMUS,* for The National Museum of Denmark, interior of the museum.

This situated narrative, experienced on headphones, is distributed across two locations in Copenhagen at The National Museum of Denmark and The Dieselhouse museum.

*...In the near dystopian future...privacy no longer exists, nothing is wholly personal or secure, all is within the domain of the state; monitored across multiple and intersecting data streams. Activists are pushing back, secretly developing a distributed intelligence system...traces of this 'Body-Mapping' technology have been detected by government agencies and other interested parties...*

Entering the imposing DieselHouse museum, the former source of the city's power, your phone begins to ring. The first of a series of calls from an old acquaintance and another, from someone whom its seems is being held against their will. What you should you believe? You hear a disturbing truth about your role in an experiment. You need to rendezvous with a contact at The National Museum of Denmark to find out the truth. You explore the first floor of the museum taking any route.
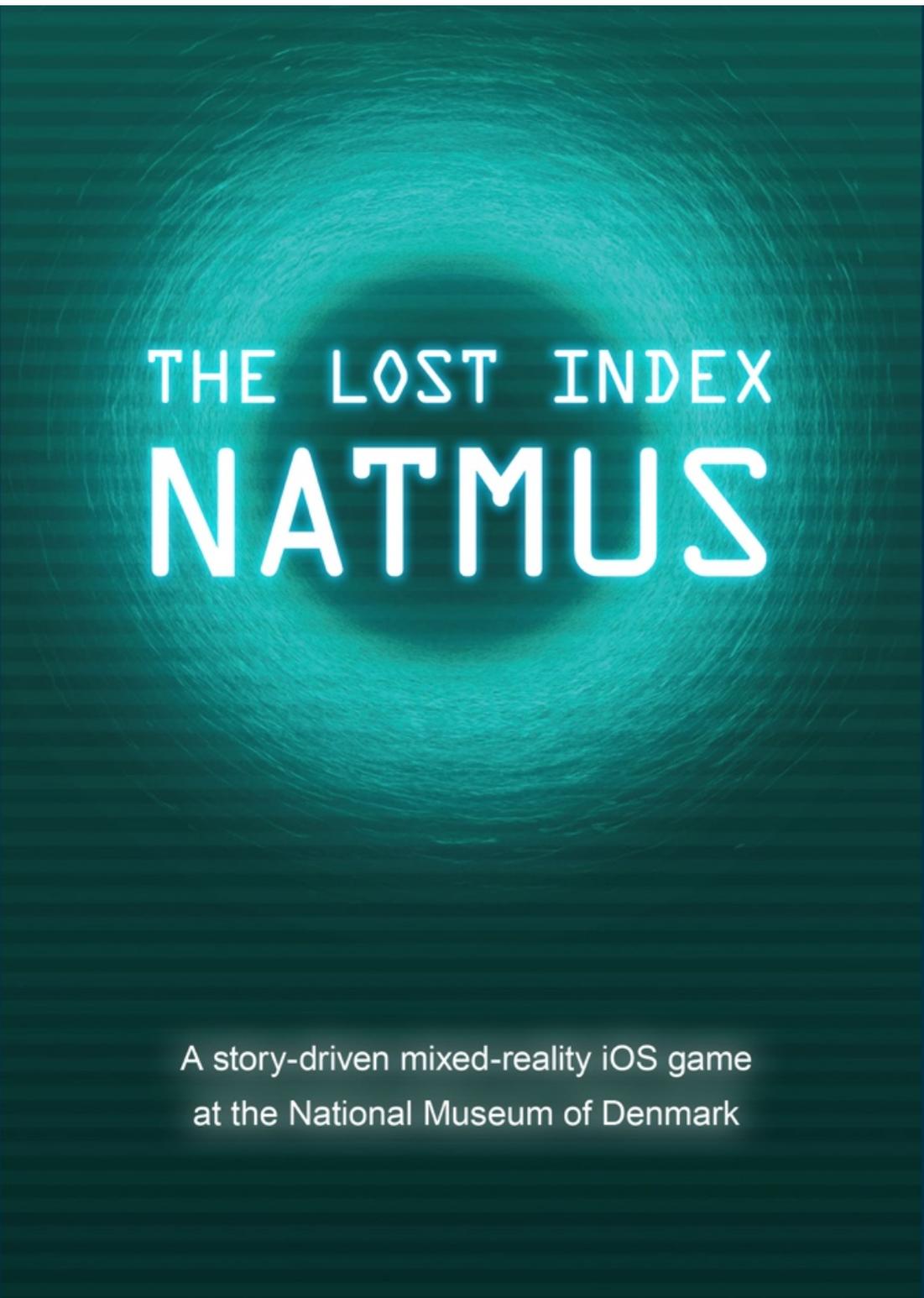
THE LOST INDEX
NATMUS

A story-driven mixed-reality iOS game
at the National Museum of Denmark

**Fig. 32** *The Lost Index: NATMUS,* for The National Museum of Denmark, flyer placed in museum (front above).

The narrative structure has an overarching linear plot built from a series of 'chapters' that are delivered via phone calls at set points over the twenty-minute duration of the experience.

Each chapter is selected at random from a collection of possible recordings, and associated with a particular plot point, providing differing perspectives on the story each time the app is launched. 'NATMUS's interaction mechanism, involves searching in the museum. A tracking device appears on your phone and you are asked to locate numbers associated with objects and input them into the on-screen index within a time limit. Logged objects trigger chapters, some of these provide clues to locating the objects, while others introduce obstacles that slow you down, sending you to different rooms in the museum.
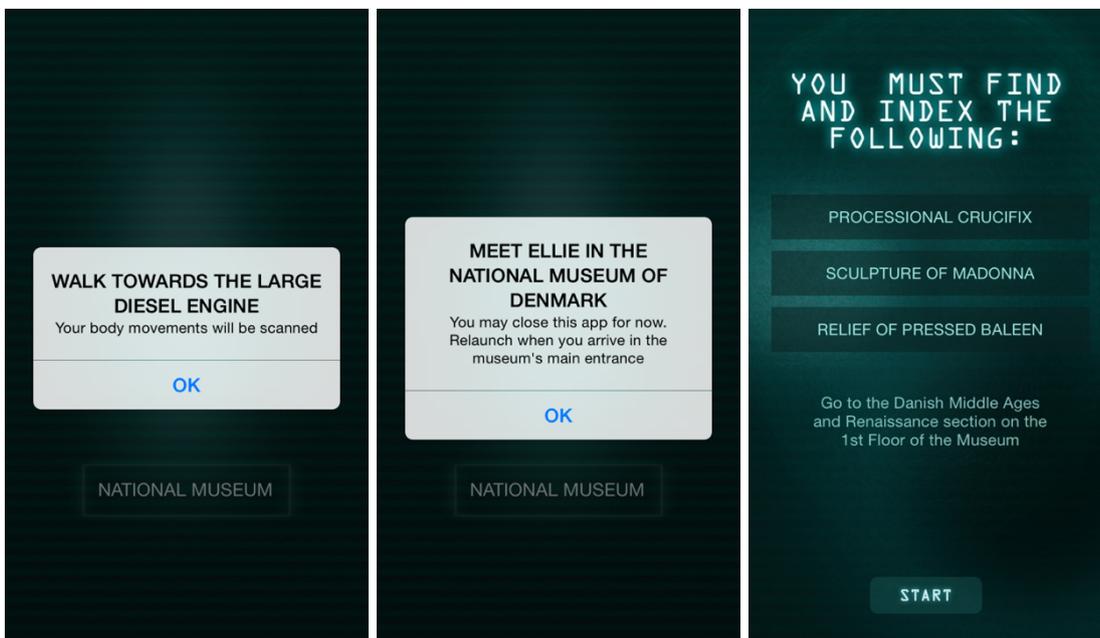


**Fig. 33** *The Lost Index: NATMUS*, screenshots of published app.
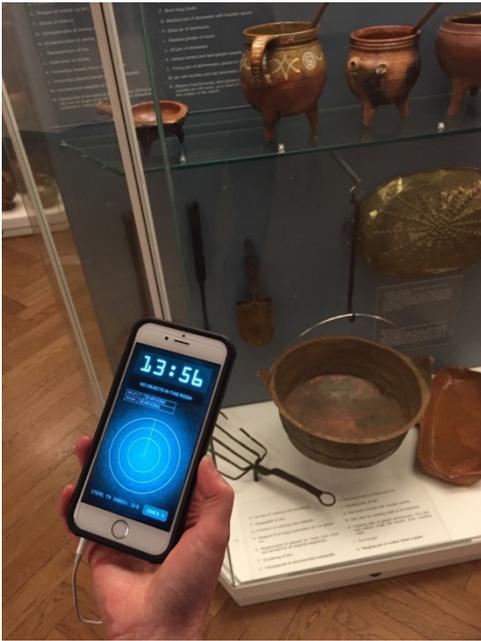
**Fig. 34** (image above and below) *The Lost Index: NATMUS*, using app in the National Museum of Denmark.



Low energy Bluetooth beacons seamlessly trigger a 3D sound environment in each room that emulates and enhances the ambient sounds. As time ticks down it is suggested that 'electromagnetic interference' occurs and the dimensions of the rooms seem to change. Binaural recordings of the ambient sound are gradually replaced with the spatial dimensions

of another, subterranean environment. 'NATMUS' is not a trail between two sites, rather it integrates two places and their collections within a story world that may be visited in any order, motivated by character interactions.

Both the author's meaning and the reader's acts of participation-interpretation occur in 'experienceable environments' that affect the particular referential acts. While linguistic norms mean that we can converse in natural language to the extent that our communication refers to objects that we share, there cannot be "same meaning" as Putnam (1992 [1983]: 78) puts. We can say that meaning is multi-stable, that interpretation occurs within 'an expected range' of meanings. Even in the case of apparent certainty, where two people point at the same object and say this what we both mean by pen, there cannot be total epistemological certainty, the best we can say is that we are both having an experience in which we both say we are pointing at an object and call it a pen - it is a temporal and context specific certainty.

**Fig. 35** *The Lost Index: NATMUS*, starting location in the DieselHouse Museum.

## Summary and Jamesian relational analysis

In response to testers of *Lost Index, No.2* requests for an expansion of narrative content,

'*NATMUS*' includes the voices of three characters (in addition to the participant) and story

perspectives, and a more complex narrative arc. The story world is extended into the city of

Copenhagen with narrative events centred in two museums that were linked by participants'

real-time journeys between them, with other locations, inferred in the phone calls

background sounds, such as an agent calling from a park.

In '*NATMUS*', as with the previous *Lost Index* apps, the story world situated and spatially

continuous with the museum location, with the potential for perceptual, linguistic and

narrative multi-stability, between *what is taken as* the real, the represented and the imagined. Existent and fictional objects incorporated into the narrative that are subject to the *logic* of the story world, its social norms, physical laws, histories and geography, etc. When answering the phone, they do so as visitor and as a character in the fictional world. If phone call is from 'outside the story', the relations to the device change to that of the individual's web of socio-personal relations. James argues, that which we designate as real, occupies real space along with other "reals" (1890b, 296). What happens when a fictional object occupies a "factual space'?

It is suggested that the enemy agent is actually present in the museum and that. A phone call from an agent in '*NATMUS*' advises the participant to look out for someone in a black shirt. Wearers of black shirts are not uncommon occurrences and if real 'bystanders' or objects can be incorporated into fictional scenarios there is the potential to extend the narrative into the existent environment. The status of 'factual' and fictional oscillates. If we decide the black shirt is not nearby, that explanation seems more logically satisfying when we have little evidence to support the alternative perspective, however we may remain on our guard, poised to alter our view. Rational interpretation involves logical reasoning but also aesthetics and sentiment, we *feel* our rational interpretation to be true, it fits satisfactorily with our existing ideas.

As with *The Lost Index* apps 1 & 2, walking *seamlessly* triggered crossfades between binaural soundscapes when participants entered different galleries and also phone calls delivering narrative nodes. Participants are invited to feel the affects of the fictional electromagnetic radiation by pressing their hand against the museum's walls. In '*NATMUS*' the participant is a

museum visitor, a user of the app, and if they adopt an *attitude of supposition*, (*relations to belief*) (*relations to imagined objects*) (*relations to perceptual objects*) (*relations to the experience of imagining*) a character in the story.

# Chapter 6

## The Quality and Affects of the Metaphor of Multi-Stability and Strategies for Locative Narrative

This chapter develops an Jamesian relational analysis of participants' structure of experience in response to introspective reports of the prototypes and published apps presented as case studies. Throughout the research, participants' accounts and personal observations have had the function as 'pumps' for thinking around the practical-conceptual issues raised by the practice of locative narrative. *These analyses are brought together here and presented as four speculative strategies for the development of the affect of multi-stability in locative narratives smartphone apps.* These particular strategies have a media-specific remit, they also illustrate how multi-stability can function and so have a wider application within the family of expanded narrative practices.

*To talk of the quality of multi-stability is to describe a value in experience ascribed to an object, to talk of the affect of multi-stability is to describe a value in experience ascribed to the experiencing subject.*

## Methods

Locative narrative participant accounts of experience were central in this research to developing hypotheses about the types of technical, narrative, sonic, interaction and environmental variables that result in the affect of multi-stability. The testing of hypotheses through the process of serial prototype development resulted in the body of speculative

strategies for creating multi-stability. These were compared with the affect in a range of other locative narratives and expanded narrative practices and patterns were interpreted and connections made between the conditions under which the affect of multi-stability may be experienced. Introspective accounts are highly contingent and variable; no generalised truth claims are made here a causal relation between the conditions and variables and experience. Beta testers' themselves sometimes expressed the contingent quantity of their reports, which they prefaced with comments such as, *"I was really tired today and pretty grumpy", "I love these types of experiences" "I don't bother with instructions".* When participants used an app again they sometimes commented that their experiences were different. The practical purpose of the interpretation of introspective reports was in the development of further hypotheses[168] and to map a temporal structure of locative narrative experience.

Extending from the Jamesian experiential framework, discussed in chapter two, the concept of experience stands in for an individual's relations between thinking and acting in the world. James' radical empiricist approach to interpretation and meaning is to give an account of the *relations* between things and between things and us. The ways in which we think about objects, the *relations* to thoughts and things, are equally important as the objects or facts (ERE 1912 [1904]: 40). The experiential and relational approach to narrative interpretation, presented here, focuses upon *the relations between (1) the participant, their responses and the actions that result from partaking in the narrative in the particular context or 'experienceable environment'; (2) modes of engagement with the narrative form or individual work, (3) drawing connections between introspective reports to make speculative descriptions of the relations in*

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[168] Appendix 1 documents this process in detail.

*structure of experience; and (4) the interpreter-critic, the narrative and the contexts of analyses.*
It is concerned with interdependence of semantic sense and pragmatic context and use.

Participants' reports of experience were analysed in terms of the types of relations in experience. While each report is unique, categories of relations and values were identified and used to code the reports. Underneath these general headings of relations (see chapter 2 for a taxonomy of relations and values) more details were recorded as specific responses within a range of descriptors, for example, in the category of *relations to emotion* the specific types of responses were identified in order to capture the types of emotional responses accounted:

- Pleasure to displeasure
- Excitement to boredom
- Relaxed to agitated

In this analysis they were correlated with the objects of thought, for example:

- Narrative
- Sound
- Navigation
- Usability

The values given to the qualities of the objects were specified as a range (some of which overlap with the relations to the objects), for example:

- Usability, technology: ease to challenge
- Usability, navigation: ease to challenge

- Narrative, engagement: *acting 'as-if'* to disengaged

- Narrative, plot: dramatic to uneventful

- Narrative, style: detail to ellipsis

- Narrative, taste: enjoyment to displeasure of genre

- Sound, environmental similarity to disparity between real-world and the story world

- Sound representation: simulation to symbolism of perceptual cues

The range can indicate the extent to which a descriptor is relevant and also a ratio between the different relations:

**Relation in experience**

*Relations to emotion*

↓

**Descriptor of relation**

*Pleasure to displeasure*

↓

**Object of thought**

Narrative

↓

**Quality or action**

*acting 'as-if'* to disengaged
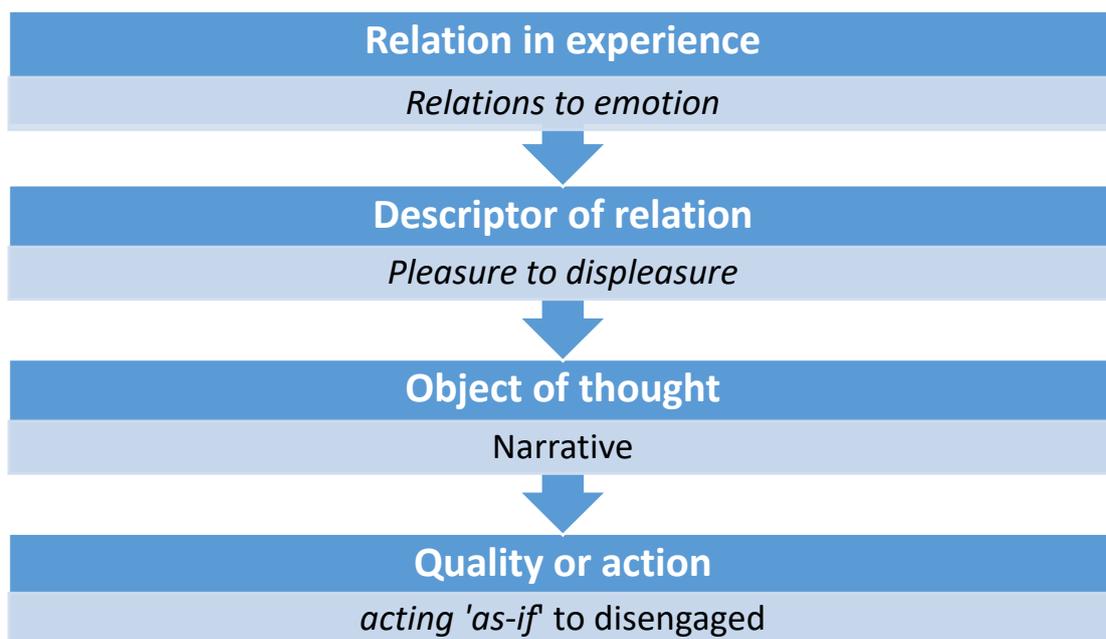
**Fig. 3** Diagram of Jamesian relational analysis: example of relation descriptors.

The aim of this approach was not the assertion of positivist empirical metric. It is a method of articulating aspects of locative narrative experience and making speculative interpretations, from which hypotheses can be formulated and implemented within the design process and also for the purpose of creating narratological analyses. Individual reports were analysed in

terms of the ratio of the particular relations and then aggregated with all the participant reports across the four case studies. The table below summarises the types of relations in experience that were identified in participants' reports of experience, the range descriptors and the objects that propositions contained, for example "*I found searching for the* [museum] *objects exciting." "I heard a baby crying and I thought it was real."*

**Fig.3:** Table of participant experiences of case studies of locative narrative.

| Reports of experiences of the locative narrative case studies | |
|---|---|
| Co-experienced elements of locative narrative: narrative; participation/movement; sound | |
| **Relations in experience reported** and range of descriptors | **Spectra objects and values reported** |
| ***Relations to emotion***<br><br>Pleasure to displeasure<br>Excitement to boredom<br>Relaxed to agitated<br><br>[Highly subjective and variable responses] | Narrative-engagement: *acting 'as-if'* to disengaged<br>Narrative-plot: dramatic to uneventful<br>Narrative-style: detail to ellipsis<br>Narrative-taste: enjoyment to displeasure of genre<br>Narrative, interest and volition: *acting 'as-if'* to disengaged<br>Sound: environmental similarity to disparity between real-world and the story world<br>Sound representation: simulation to symbolism of perceptual cues<br>Sound style: distaste to pleasure<br>Usability, technology: ease to challenge<br>Usability, navigation: ease to challenge |
| ***Relations to rationality***<br><br>Clarity to confusion | Narrative style: detail to ellipsis<br>Narrative, interest and volition: *acting 'as-if'* to disengaged<br>Sound representation: simulation to symbolism of perceptual cues<br>Usability-technology: ease to challenge<br>Usability-navigation: ease to challenge<br>Interaction mechanism: apparent to oblique |
| ***Relations to interest and volition*** | Role in narrative: observer to protagonist<br>Narrative plot: dramatic to uneventful<br>Narrative style: detail to ellipsis |

| | |
|---|---|
| Engagement to disengagement | Narrative, interest and volition: *acting 'as-if'* to disengaged<br>Sound representation: simulation – symbolism of perceptual cues<br>Sound identification: indistinguishable – distinction between recorded and 'local' sounds<br>Sound style: distaste to pleasure<br>Modes of participation: observing to listening, puzzle/task solving to creating<br>Usability-technology: ease to challenge<br>Usability-navigation: ease to challenge |
| ***Relations to perceptual objects***<br><br>Recorded and local sounds: difference to intermixing to replacement | Narrative style: detail to ellipsis<br>Narrative plot: dramatic to uneventful<br>Sound representation: simulation – symbolism of perceptual cues<br>Sound identification: indistinguishable – distinction between recorded and 'local' sounds<br>Sound style: distaste to pleasure<br>Role in narrative: observer to protagonist<br>Narrative, interest and volition: *acting 'as-if'* to disengaged |
| ***Relations to imaginary objects***<br><br>*Acting 'as-if'* to disengagement | Narrative plot: dramatic to uneventful<br>Narrative style: detail to ellipsis<br>Role in narrative: observer to protagonist<br>Narrative-taste: enjoyment to displeasure of genre<br>Narrative, interest and volition: *acting 'as-if'* to disengaged<br>Sound representation: simulation to symbolism of perceptual cues<br>Sound: environmental similarity to disparity between real-world and the story world<br>Sound representation: simulation to symbolism of perceptual cues<br>Sound/narrative/interface representation of relations between the narrative and location: identification to non-recognition<br>Usability-technology: ease to challenge<br>Usability-navigation: ease to challenge |

**The temporal structure of experience of the locative narrative case studies: *relations to belief***

This description is an aggregate of the the different ways that participants behaved over the duration of a locative narrative case study, in relation to range of beliefs adopted.

Temporal description:

1. Prior to experience

1. Going to location

(downloading app, before or after arrival)

1. Launching app

1. Putting on headphones

1. Reading instructions

1. Listening to opening 'scene'

2. Beginning to walk

2. Try to make sense of what to do

2. Multiple elements occurring concurrently:

recorded sounds, voices, unscripted events,

people and sounds in the location

3a. Accepting the premise/rejecting the premise
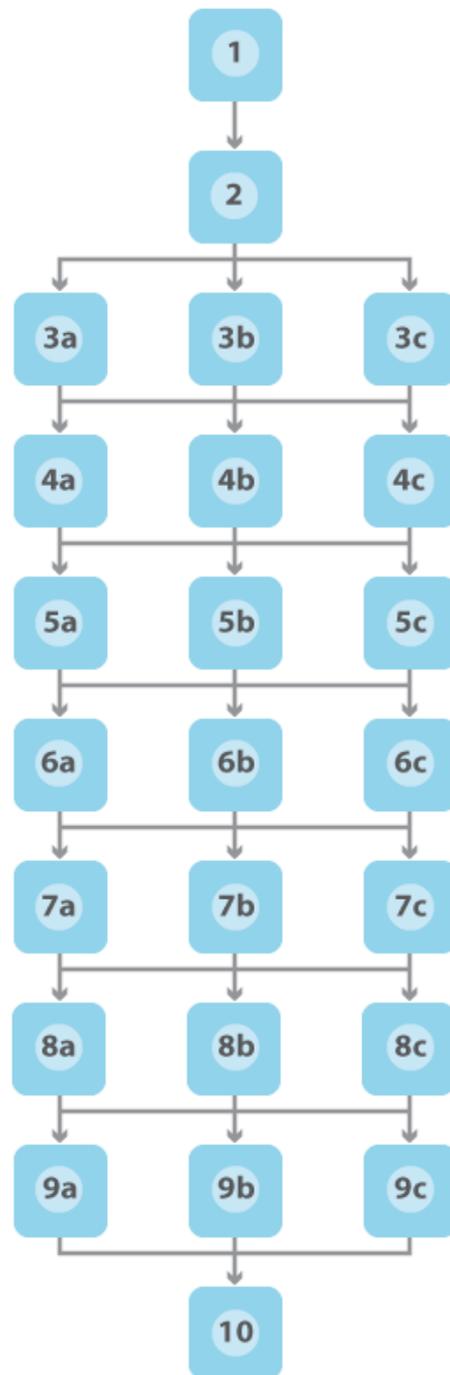


**Fig 4.** Diagram of locative narrative temporal structure of experience: *relations to belief*.

3b. Acting *as if* the narrative premise is occurring as it purports

3c. Acting *as if* the narrative premise is not occurring as it purports – adopting a meta-relationship to the experience – the perspective of 'participant as critic'

4a. Engaging in the tasks *as if* the narrative premise is occurring as it purports, from the perspective of named or unnamed character or as themselves in the situation represented by the narrative.

4b. Engaging in the tasks from the perspective of 'participant as critic' – observing relationship to the experience

4c. Not engaging in listening or tasks, thinking about other things.

5a. Attention primarily focused on the story or the tasks and acting *as if* the narrative premise is occurring as it purports

5b. Attention intermittently focused on the story or the tasks and acting *as if* the narrative premise is occurring as it purports, alternating with the perspective of 'participant as critic'

5b. Attention predominantly focused on the perspective of 'participant as critic' while listening and engaging in the tasks.

6a. 'Forgetting', if temporally, the perspective of 'acting *as if*', a single perspective of engaging in experience.

6b. Continuing to 'act *as if*' the narrative premise is occurring as it purports.

6c. Moving from the perspective of 'participant as critic', to 'acting *as if*' the narrative premise is occurring as it purports.

6.d Maintaining the perspective of the 'participant as critic.'

7a. Noticing perceptual ambiguity, in the role of 'acting *'as-if'*'

7b. Noticing perceptual ambiguity, from the single perspective of engaging in experience

7c. Noticing perceptual ambiguity, from the perspective of 'participant as critic'

7d. No experience of perceptual ambiguity

8a. Questioning the experience of perceptual ambiguity, from the single perspective of engaging in the experience

8b. Questioning the experience of perceptual ambiguity 'in character'

8c. Questioning the experience of perceptual ambiguity in the role of the 'participant as critic', (the experience draws attention to its mediation)

9a. Behaving in response to narrative events from the 'single perspective' of engaging in experience

9b. Behaving in response to narrative events 'in character'

9c. Behaving in response to narrative events from the perspective of the 'participant as critic.'

10a end of experience

11a Reflecting upon the experience and stances adopted

**Summary of locative narrative strategies for evoking the affect of the *metaphor of multi-stability*: starting points for further speculative practice**

In chapter two, antecedents of locative narrative, I made a case for the experiential and formal complexity of the form of locative narrative, on five interconnected grounds: *(1) the authorial intention is to situate-integrate the story world within an existent location; (2) the structure of the narrative is linked with the mode of interaction; (3) media is experienced in relation to surroundings; (4) the reader-audience becomes a participant whose actions take place within the fictional world and the existent environment; (5) the spatial-temporal complexity of partaking.* I went on to add two further arguments, the subject of which are the particular focus of the case studies: *(6) ontological ambiguity may result when perceptual cues are not*

*readily attributable to the existent place or the fictional world of the story; and (7) the prompting of experiential and epistemological questions, 'what does it feel like to be a participant in a story?' and 'what is the truth-value we attach to our experience when our actions take place in narrative worlds?'* Drawing upon the locative narrative case studies, these points are discussed below, together with additional observations in support of arguments (1-5).

I argue that prompting the affect of multi-stability in participants of locative narrative is concerned with their relations to perceptual and imaginary objects: (1) changing the relations between objects in time and space (strategies of representation and composing the context); (2) influencing the value of belief (suggestion, attention focusing, misdirection); (3) changing the relations to the experiences of perception and misperception (through enjoyment and/or interest, promoting volition, imagining and acting in response to imaginings and beliefs); and (4) Influencing the *values of fiction and representation* of perceptual objects (representation/simulation of sensory cues)
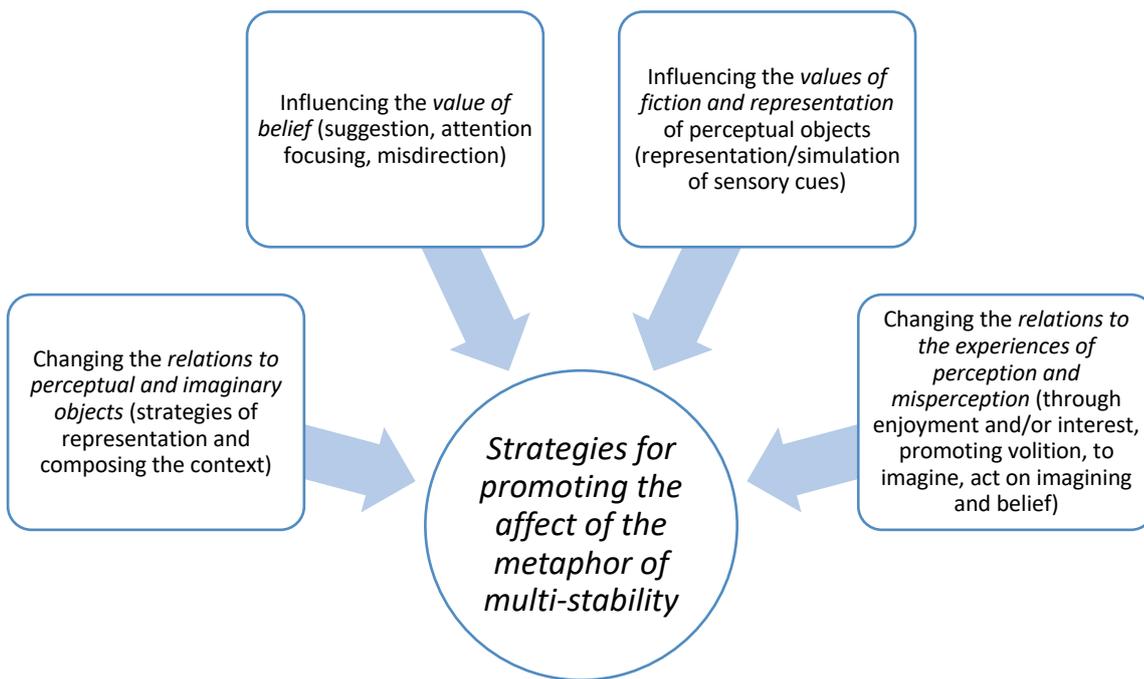
**Fig 5.** Diagram, *strategies for promoting the affect of the metaphor of multi-stability.*

## The affect of multi-stability involves creating contexts for beliefs

(1) Narrative form, sentence structure; (2) the placement of spatial locations depicted within the narrative (or parts of) within the physical surroundings of the participation; and (3) directly inviting acts of belief: the supposition *'as-if'.*

The primary contexts for *creating* relations between the participant and *perceptual and imaginary objects* with locative narrative is the participant, the narrative and the existent environment. The material form of the narrative, as text or voice, may be internal or external to the content of the narrative. If the narrative is self referential, the content of the locative narrative may take the form of a provocation or thought experiment. If the narrative is framed as transparent, the participant either agrees to ignore the narrative's mediation, or adopt a

meta relation to their act of reading-participating. The form of locative narrative makes many of the givens of fictional and non-fiction texts contingent: the participant may not be silent, they're probably not static, their attention may only be directed towards the text intermittently and the narrative is happening in relation to the participant's environment. *(1) The content of the locative narrative defines the relationship of the participant to the text, as material object and (2) and between the participant to the story; (3) it also sets up the logic for the relation of the participant to the environment, and (4) the conceptual rational for the existence of the narrative, (5) how the narrative comes into existence for the participant; (6) the narrative structure.* The form of the narrative, I argue, is contingent on these elements. In locative narrative the *Lost Index: NATMUS,* for example, the relations of the participant to the narrative and the environment are:

(1) The narrative as material object: is transparent, it is not self-referential.

(2) The participant is: a gallery visitor who is responds to a cry for help from a captive (internal to the narrative).

(3) The participant's environment: is synonymous with the world of the story that takes place in Copenhagen and the museums.

(4) The logic of the existence of the narrative: it is *happening* to the participant because they received a phone call.

(5) The narrative comes into existence: delivered to the participant via phone calls to the participant,

(6) The narrative structure: in sections that fit into of 1-2-minute phone calls.

A locative narrative participant is not necessarily that of a protagonist, their role may be oblique, they may be inside the head of a character, as in *Missing Voice* (Cardiff 1999)

experiencing their internal monologue or have an 'over the shoulder' role as a 'friend', *Ship Aground* (Interactive Places 2010). Both these locative narratives are continuous and (predominantly) structurally linear. The narrative form sets the frame for how participants should regard their surroundings, recommending the viewpoint they should adopt.

The sentence structure, first second or third person sets up the relations between the text and participant, offering another opportunity to shape the perception of the surroundings:

1) "The woman in the white shirt has recognised me" (Inside character's head)

2) "You have been spotted by the woman in the white shirt" (Directly addressed from the narrator or another character (as a recorded voice/phone call/SMS/letter etc.)

3) "They look nervous, as the woman in the white shirt sees them." (The participant is separate from the action. However, the third person may also be used if the participant is in the role of an omnificent observer, or a listener overhearing another character's conversation)

The fictional environment within the story world may be synonymous with the participants' surroundings, as in *The Lost Index* apps, or the existent place may be the means of accessing the parts of the story world (within the narrative frame) as *LociOscope, The Letters.* Another approach is to present fictional events as happening in the participants 'ordinary existence', as in the pervasive game *Majestic* (Electronic Arts 2001) (Montola et al 2009: 11) where the narrative and game play occurred across participants' devices in their everyday lives. In the locative narrative *Journeyer's Guidebook* (Whittaker & Brocklehurst 2016), there is the narrativisation of 'ordinary reality'.

The possibilities for the spatial proximity of the environment and narrative locations offers further opportunities to influence the *participant's relations to perceptual and imaginary objects:*

1) If story locations and the environment are synonymous, existent objects, places and people all have potential significance for the narrative. The participant's relations to the environment has both the *value of reality* and the *value of fiction.*

2) If story locations are happening elsewhere or in parallel with the environment. Then environment has *the value of reality.*

3) If fictional events are occurring in the environment, the environment has *the value of reality*

4) If fictional locations are nested within the environment, such as those inferred from the background sounds of phone calls, the fictional locations have *possible value of reality.*

Each, or a combination, of these treatments of the surroundings offer different opportunities for framing beliefs that are in part contingent on the participant's *relations to volition.* In option one, the participant is required to temporally adopt the belief that their world has been transformed. They are on the 'inside' of the world of the story and truths and fictions happen within this frame, in which they are asked to act; as 'robbing' a bank in *Machine to See With* (Blast Theory 2010) or rather, acting *as-if* you are robbing a bank. However, the locative narrative is stilling happening within the broader frame of social and cultural norms, and while robbing a bank is unlikely to be ascribed the *value of reality,* some imagined and fictionalised existent objects do have that potential.

In chapter 1, I argued that multi-stability of language supervenes on the normative function of language. In chapter 4, I discussed the well known cognitive phenomena of perceptual multistability; two similar objects in close spatial or temporal proximity can result in the switching between interpretations of the object perceived. I argued that the that misinterpretations of perceptual objects may take place, or the *value of reality* may be given to an imaginary object, if the belief is congruous with the 'experienceable environment', such as the (recorded) vehicles and (recorded) footsteps but not (recorded) bird calls in the context of the museum.

In '*NATMUS*' the story world extends into the city of Copenhagen, with narrative events centered in two museums that are linked by participants' real-time journeys. Participants have a *relation to their experiences of perception*, they feel themselves moving through the locations represented in the story. The *value of reality* is assigned to the act of walking through the city, the narrative rationale piggy backs on the feeling of movements happening to 'me'.

**Suggestion**

Strategies of suggestion: (1) linguistic and auditory suggestions that state the target emotions, i.e. the qualities and values you wish participants to experience; (2) the narrative can draw participants' attention towards existent and represented sensory cues; (3) statements that guide imagining that may come from outside or inside of a narrative depiction of a world of the story; (4) assigning that which is taken as existent objects with different meanings; the

mobile devise has new (fictional) capabilities, for example, the app that allows the phone to 'detect emotional resonance'.

In '*NATMUS*' the status of 'you' is important. It turns fictional statements into declarative performative utterances, "You are observed", "The entrance is just ahead", and priming the participant for emotional responses, "You are feeling a little anxious", or directing attention away or towards perceptual or imaginary objects, "Look towards the stairs", "You notice a figure in the distance". In *The Lost Index, No.2: Landscape with Figures,* attention focusing techniques were used first to promote concentration, prior to guiding the participants' thoughts through an imaginative journey. Addressing the participant in the second person, directly brings them into the story. Simple sentence structures, with a limited use of adjectives creates ellipses for 'filling in gaps' with participants' own experiences. The tension and release that the metaphor of multi-stability sets up comes into play again here; guiding, leading and suggesting, while leaving the detail and precise nature of the imaging open. Acting *'as-if'* you are on a journey, can '*tip over'* into belief, *"I did see something in the box"*. Belief has, after James (VRE 1902: 56-58), a 'reality-feeling'*.* That reality *is,* on the one hand existent, but on the other, reality is a value that we ascribe to experience. A 'reality-feeling' is *like,* but not identical with the existent world.

Existent 'bystanders' or objects can be incorporated into fictional scenarios as Cardiff did in *Missing Voice* (1999). Labelling people or objects within the narrative, 'a man in the gift shop is a spy' or 'the marks on the tree are a sign', has the potential to extend the narrative into the environment.

**Misdirection**

Strategies for misdirection: (1) engagement in a tasks that are related to the narrative; (2) attention directed towards an existent, or apparently existent objects in the environment; (3) directing attention towards story events; and (4) playing with causal relations between story fragments and narrative structure.

Tasks embedded within the narrative, such as walking to a location and searching for people or objects can keep the participant focused on the world of the narrative, actively cementing fictional premises to existent objects and locations. However, there is the potential that value of successfully completing a challenge takes on greater relevance to the participant than the story.

Alternative interpretations applied to functioning objects in the world, such as in '*The Lost Index'* the participant's phone is a 'volatility metre', co-opting the object's quality of liveness; the *value of reality* is hijacked for fictional purposes. The 'volatility metre' detects proximity to objects[169]. While it's an object in a fiction, the app does *really* perform the fictional function, detecting objects, however the actual cause of its functionality (the proximity to Bluetooth beacons), is suppressed. Its *value of reality* is metaphorically multi-stable, moving between the factual and the fictional.

Existent and fictional objects are subject to the *logic* of the story world, its social norms, physical laws, histories and geography, etc. What is given the *value of reality* inside the world

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[169] We could relate this to Roland Barthes (1957) sematic function of "myth".

of the story may not be the same as outside. If participants are motivated to adopt

suppositions, there can be consequences for how they act. Actions may result from the belief

that a sound has the *value of reality*, tuning around to see if someone is following you when

you hear footsteps. Actions may also be motivated by other factors such as, *relations to*

*emotions*, if it is a pleasurable to imagine a particular scenario, and *relations to volition,* the

desire to successfully complete a task, set within the narrative. Rational interpretation

involves logical reasoning but also aesthetics and sentiment, we *feel* our rational

interpretation to be true, it fits satisfactorily with our existing ideas.

**Relations to representations**

The use of recorded sound to represent fictional objects or events and the attribution within

the narrative of to alternative interpretations to existent sounds, are strategies that can

suggest the presence of fictional places. Recorded sound may be given the *value of reality,*

particularly if the sound sources are occluded or there no possibility of verifying sound

source, or it may be falsely attributed to an existent object. Recorded sounds of seagulls are

potentially attributed to seagulls flying overhead. In accounts of '*LociOscope, The Letters*',

participants' classifications of the existent, the represented and the imagined was often

'unsettled'. *"I heard footsteps coming up behind me and thought there was someone there"*,

"*There were a few moments where I jumped, I couldn't distinguish between which sounds were*

*and weren't recorded, like the birds and the motorbike".* Listening to locative narrative on

headphones in the context of the existent location has the potential to heighten sensory cues,

create a sense of 'strangeness' and misperceptions. The composition can employ techniques

from simulation of perceptual cues to symbolic representation. Recorded and synthesized

binaural sound can give the illusion that sound sources are spatially situated in the environment around the participant. A dog's padding feet on a boardwalk audibly in *LociOscope, The Letters'* seemed to be few metres away, evoking the sonic qualities of the fictional place, however the dog was invisible, drawing attention to its mediation.

Recorded sounds don't necessarily need to simulate all the qualities of existent objects for them to be described as having a 'reality feeling'. Using familiar film or radio representational conventions, recorded sounds function symbolically as "sound marks" (Schafer's (1994 [1977]: 6) signifying the type of environment while apparently transparent. Other sounds such as voices talking in the background or the vibrate sound on the mobile phone ringing in the app, create the illusion that the call is non-fictional, can add detail and specificity to the world of the story.

The context of the particular environment can affect the perception of sounds; the same recording can be interpreted differently depending upon its congruence with the listening situation. The recorded sound of the blackbird heard on the headphones appears to be issuing from a blackbird on a nearby branch but the *value of reality* was not given to the same recording in the city environment. Recorded sounds may exist concurrently, sequentially, blend or mask existent sound in the location.

**Summary**

The metaphor of multi-stability describes a potential quality of expanded narrative practices, and in particular, I argue captures an aspect of the experiential and formal narrative

complexity of locative narrative. We generally accept the phenomenal presentation of our surroundings, however *ontological ambiguity may result when perceptual cues are not readily attributable to the existent place or the fictional world of the story; the prompting of experiential and epistemological questions, 'what does it feel like to be a participant in a story?' and; 'what is the truth-value we attach to our experience when our actions take place in narrative worlds?'*

# Conclusion

In this thesis I have argued for the new field of expanded narrative on the grounds that it represents practices not captured by single disciplinary categories, such as 'art', or 'game studies', or by media-specific labels such as 'digital' or 'interactive'. Expanded narrative is defined those practices that present a *challenge their particular form of storytelling, fiction or nonfiction*. Whether that challenge is to spectatorship, made by promenade theatre, or locative narrative's challenge to the site of reading, the potential affect is that of experientially *unsettling the ontological status of what* the participant takes *to be 'real', represented or imagined.* This affect I have expressed with the *metaphor of multi-stability.*

The *metaphor of multi-stability* is analogous with the term perceptual multistability, that refers to switching between interpretations that we may experience when we look at an ambiguous figure like the Necker cube or the duck-rabbit illustration.[170] Extending and elaborating upon this term, and descriptions of ambiguity, the *metaphor of multi-stability* has three parts: perception, language and belief. I have argued that giving an account of the affect of the metaphor of multi-stability, rests upon the framing of experience. The Jamesian experiential framework, introduced here, delineates four intersecting thematics to describe the environmentally situated *relations* between thoughts and things: (1) Action, habit, thinking-perceiving; (2) The intentional content of thoughts; (3) Truth and believing; (4) Feeling, affect and sentiment.

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[170] Denham and Winker (2015: 601) multi-stability is described as taking place in perceptual processes within and beneath the level of awareness, discussed further in chapter 4 of this thesis.

Experience, for James, is *being happening*. Being requires an "experienceable environment…a vehicle or medium connecting knower with known and yielding the cognitive *relation*;" (James 1909, 41). It is the context in which its and other entities' qualities can be individuated and identifiable (James 1909, 18-19). In our experiential awareness, the meanings attributed to perceptions and conceptions are what they are *known-as*. They are constructed and context dependent, spatial, temporal, social, personal relations to ourselves. While an idea or perception is not contradicted, it is *potentially or virtually* true (1909, 115-11). Our beliefs about how the world *is* may seem to have a rational basis, perhaps supported by evidence, but they are first a hypothesis, our faith or hope in which is driven by feelings or sentiment (1897, 62). The truth of an idea is determined by the *actions* (1907, 45), conceptual or physical, that follow from it, leading to further thoughts or physical activities. Beliefs *become* true when they are *verified* (1907, 206) as such.

In diagramming the field of expanded narrative, locative narrative is situated as one of its genera. I define locative narrative in terms of its experiential and formal complexity, that results from the active participation of the audience within the location in which the narrative is situated, that has the potential to prompt the *affect* of *multi-stability*. This thesis has put forward a collection of speculative strategies for evoking the affect of the *metaphor of multi-stability*. Participant introspective accounts of experience have been central to the process of serial hypothesis forming and the iterative development of prototypes and locative narrative case studies. While these accounts are highly variable, the use of the relational analysis to code accounts has created speculative descriptions, informing on-going hypotheses.

The Jamesian relational analysis, developed in this thesis, sets out a taxonomy of relations and values. It articulates, (1) relations between the participant, their responses and the actions that result from partaking in the narrative in the particular context or 'experienceable environment'; (2) modes of engagement with the narrative form or individual work, and (3) the interpreter-critic, the narrative and the contexts of analyses (secondary analyses). Producing an account of the ratio of relations between thoughts and things and 'playing' with these variables has been be used to develop the collection of speculative strategies for creating the *affect of multi-stability* in locative narratives. Their value and significance is as starting points for situated narratives and for the wider field of expanded narrative practices.

Locative narratives can be interrogated as a site where the fallibility of perception becomes evident. The introduction of conflicting sensory stimuli and suggestions may prompt misperceptions and a belief that the represented or the imagined has occurred in the surrounding world. The malleability of our beliefs is what I argue, narratives, fiction or otherwise, trade on; *creating contexts for supposition* and directing us to *adopt suppositions, as-if* narrated events are existent. We '*see-as-if*' the imagined place was existent, at least while our attention is focused on that world. When representations have the "reality-feeling" (James 1902, 58) our doubts may 'tip-over' into belief.

The pen he picked up on the bridge now lies on the table in the next room. It does not mark my paper. Thoughts or movements towards it are 'ambulatory' ([1878] 1920: 60) relations; they occur in-action, in the space and time that separates my concept from its terminus, the existent pen I pick up. My perception 'hangs' off my concept in 'a concatenated or continuous structure' (1909: xii–xiii) of concrete transitions. Picking it up and pressing down, it functions

for me. In the domain of my daydream, I tip the Eiffel Tower pen I once owned and tiny snow falls slowly in its miniature snowglobe world. Scooping up the snow and hurling it against the glass. Looking down, the page is blank. Many times our thoughts do not make contact with the objects to which they refer; they remain in transit, flowing towards their next affects…

# Appendices

# Appendix 1

## Locative narrative case studies design process tables

**Fig. 1,** *The Letters,* for Dartington Hall Gardens, version 1 ('scattered voice points)

| Narrative Design Table | |
|---|---|
| ***The Letters,* for Dartington Hall Gardens, version 1: scattered voice points.** | |
| *What is the narrative content and structure?* | *The related questions/issues.* |
| The correspondence is transcribed from original letters in the Dartington Hall Trust archive. | Which parts of the letters should be selected? |
| The letters are coded by reoccurring themes: names, places, friends, dates and 'the experiment'. | How should the story be constructed (writer, date, travel destination, topic)? |
| The letters are divided into voices, and reoccurring themes are ordered by the date letters were sent. A partially linear story emerges that at times goes out of chronological sequence because of actual delays in the receipt of the post by the recipients. The story can be divided into sections with separate sound files heard in particular points within the location. | In what order should the participant encounter elements of the story?<br><br>See participation design table fig. 2 for concurrent discussion ➔<br><br>See sound design table fig. 3 for concurrent discussion ➔ |
| The story can be developed using a branching path mechanism punctuated by questions such as, "what were Dorothy's friends in Rome saying…?" | What is the effect of the requirement to press multiple-buttons on the engagement with the narrative?<br>See participation design table fig. 2 for concurrent discussion➔<br>Using questions to motivate the selection of narrative sections requires a rationale that is integrated into the story. What is the participant's role in the story? How does their role relate to the genre of the story? 'Who' within the narrative is generating the questions?<br>What are the implications for the choices made? How does the selection this affect the narrative? |
| Alternative mechanisms for triggering story sections can be tested:<br>• Rules can define how the story world operates.<br>• Descriptions of the story-world, environment, characteristics and occupants.<br>• Vignettes of situations or characters, lifted from the letters.<br>• Stories framed within stories.<br>• The narrative structure can be organized into zones associated with the different travel locations, to create a story world. | See participation design table fig. 2 for concurrent discussion.<br><br>How are the different locations communicated to the participant? |

| | |
|---|---|
| The locations can simulate the actual places where the letters where written or that they describe. | How can the destinations be simulated? See sound design table fig. 2 for concurrent discussion. What is the role of the participant in the story? |
| The destinations can be simulated in spatial sound using historically accurate sounds. | See sound design table fig. 2 for concurrent discussion ➔ |
| The order of the narrative is determined by the order that the different zones are encountered. The zones can be liked to entering a re-enactment of an historical location. The participant has accidently discovered this access to the past. | How do the participant's make sense of the story? |
| The story is fragmentary, reflecting the experience of the recipients of the letters. Participants can wander freely or work out themes or the chronology of the letters and visit the zones accordingly. | How do participants know where to walk? See participation design table fig. 2 for concurrent discussion |
| How are the relationships between the voices and the travel destinations established? | See sound design table fig.3 for concurrent discussion➔ |
| What are the relationships between the real-world locations and zones? | See participation design table fig. 2 for concurrent discussion ➔ |

**Fig. 2** *The Letters,* for Dartington Hall Gardens, version 1 'scattered voice points': Participation Design Table

| *The Letters,* for Dartington Hall Gardens, version 1: scattered voice points. | |
|---|---|
| **Participation Design** | |
| *How can participation be developed?* | *The related questions/issues.* |
| Dartington Hall Gardens will be the initial location for the story because of its factual basis for part of the story. | How does the participation with the story relate to participation in the location? |
| The story could be heard on headphones as a single sound file while walking in the location. | Should the sound file have an accompanying map? What are the implications for the route?  See narrative design table fig. 1 for concurrent discussion of the implications for the narrative structure ➔ |
| In order to bring the story world into the real world, story locations could make visual and auditory connections with points within the garden. | A predefined route can be fairly prescriptive and passive experience. How can the participant be given more agency within the story and the experience? |
| The story can be divided into sections with separate sound files heard in particular points within the location. | In what order should the sections be heard? What participation mechanism could determine how the files are heard? What is the relationship of the points with the separate sound files?  See sound design table fig. 3 for concurrent discussion ➔ |
| The story can be developed using a branching path mechanism punctuated by questions – "do you want to hear letter from Rome or discover | What is the effect of the requirement to press multiple-buttons on the engagement with the narrative? |

| | |
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| who…?" Choices are correlated with a point in space in locative narrative. Using GPS sufficient space between 'choices' is required or multiple triggering occurs. | See narrative design table fig. 1 for concurrent discussion ➔ |
| Using questions to motivate the selection of narrative sections requires a rationale that is integrated into the story. This can lead to many potential choices that require a rationale within the story. | See narrative design table fig. 1 for concurrent discussion ➔ |
| Alternative mechanisms for triggering story sections tested. Story sections, heard as sound files, can be 'discovered' - triggered by the participant's physical position via GPS. | How does the participant discover the sound files?<br><br>How does the discovery affect the narrative structure? See narrative design table fig. 1 for concurrent discussion ➔ |
| A model of a story world a predefined world with its own logic, rules and attributes could be an appropriate model to explore. The narrative structure can be organized into zones associated with the different travel locations. The locations can simulate the actual places where the letters where written or that they describe. | How does the participant know where the fictional places are? |
| The app can include a map that overlays the garden with the fictional places. Areas of the garden become, the San Franciscan Hills, New York, Yosemite National Park, Dartington, San Francisco Harbour and Rome of 1925. The participant uses the map to find the fictional place. | Where are the edges of the zones? How are the voices and locations heard together? See sound design table fig. 3 for concurrent discussion ➔ |
| GPS data has been collected for 58 voice point locations within the fictional places. 'Narrative voice points' identified with the zones that utilize the existing features of the garden design, such as benches, sculptures, focal points etc. Basic prototype made that triggers generic sounds that identify the zones. The aim is that these fictional places are experienced as soundscapes and voice (exerts from the letters). At the edges of zones adjacent zones can be heard faintly, this could be an interesting in terms of hearing the distance sounds of a town as you approach. | Multiple zones and voices are erroneously triggering at the same time. This makes the voices repetitive and confusing. How can the affects of 'drifting' GPS points be overcome? |
| The sound sources can appear to issue from sources in the location. The veridicality could be increased by the sounds responding dynamically to the participant's position, in terms of volume and intensity. Experimentation with combining the hardware of the smartphone: the gyroscope and accelerometer. Sufficient accuracy could not be achieved to binaurally synthesize the files dynamically because of the variation in the GPS accuracy. There are also issues surrounding the direction | How could this be achieved using the hardware of the smartphone without external sensors or head-mounted devices? |

| | |
|---|---|
| of the head that cannot necessarily be equated with the direction that the phone is held. | |
| Participants' speed of walking can effect the alignment of the sound files (voices and represented environments) with the specific points in the garden. A zone can be walked through and into another while the first sound file is still playing? | How can the sound environments and associated letter fragments be 'tethered' to specific areas of the garden though participation and/or by sound design? How does a participant know when they have entered or exited a zone?<br><br>See sound design table fig.3 for concurrent discussion ➔<br>How do participants interact and make sense of the fragments? |
| As the participant walks the GPS that is used to trigger the sounds in the sound zones drift around, turning on and off. Zones also drift into each other and are heard simultaneously making them incomprehensible. Zones trigger multiple times, making the experience incomprehensible and irritating. | EW suggests different preconditions, such as, zones not triggering for 10 minutes after they have initially triggered. When zones retrigger, the question emerges should they start from the beginning or resume where they the participant exited the sound. JB implements zones resuming where they last left off unless completed after 10 min and then they start from the beginning.<br>This alleviates some problems but does not stop zones overlapping. EW suggests precondition that no zones can play simultaneously and zones play to the end even if the participant is no longer in the zone. |
| There are long gaps between zones and voices that suggest that the software has stopped working and disrupt the experience. | EW suggests a background track that plays throughout the experience. JB suggests treating the background a large zone with a GPS radius that sits behind the other zones. |
| The map can indicate when the participant has entered or exited the zone. Discussion with James Brocklehurst regarding changing the colour or texture of the zone on the map? | How should the map be designed? How can the real world and the represented travel destinations be overlaid? What colour scheme, icons, landmarks should be included? |
| A simplistic map that uses a plan with shaded colour areas overlaid to indicate the fictional places. | Should the fictional places be labeled? When should the label appear, before or after it has been found? How can the map indicate that a fictional place has been visited or that the participant is in the fictional place when they revisit it? Should there be a change of colour to indicate the two different states? |
| Participants could choose different sense making approaches, such as, walking within a specified area, following particular characters, or subjects. Each mode of participation reveals different narrative configurations of the letter fragments. | |

**Fig. 3** *The Letters,* for Dartington Hall Gardens, version 1 - 'scattered voice points': Sound Design Table

| *The Letters,* **for Dartington Hall Gardens, version 1, scattered voice points.** | |
|---|---|
| **Sound Design Table** | |
| *How can the sound be designed?* | *The related questions/issues.* |
| How can the letters be communicated in sound? The letters are divided into voices of the writers, Dorothy and Leonard (referred to as Jerry) and soundscapes of seven of the travel destinations featured in the letters during January to end of March. | What tone should the voices take? How should participants relate to the characters?<br><br>In what order should the participant encounter elements of the story? See participation design table fig. 2 for concurrent discussion ➔<br><br>What is the role of the participant in the story? See narrative design table fig.1 for concurrent discussion ➔ |
| Initial voice recordings of thirty exerts from the letters. Experiments with whispered fragments and voices overheard, stumbled across. The voices need to be clearer enough to covey the story elements. | Which voice actors should record the voices?<br><br>How should the voices be heard in the location? See participation design table fig. 2 for concurrent discussion ➔ |
| The locations can simulate the actual places where the letters where written or that they describe using spatial sound recorded binaurally and synthesized in postproduction. | Should the soundscapes be made with historically accurate material? |
| Historically accurate sounds may make the represented environments more believable. Development of an inventory of sounds of the period pertaining to each of the represented environments. Films of the period provide a source of information about the types of sounds hear the cityscapes of the period – regarding London, Rome and New York and the quality of the voices. *Jack Benny in Taxi Tangle* (1925) | How can the recorded sounds appear to be naturalistic? |
| Historically accurate sounds can be used as key sounds or Soundmarks (Schafer 1994 [1977]: 6) to evoke the locations of 1925, in compositions with ahistorical sounds. | How many sounds make up a sound zone? Can stereo and binaural sounds be combined? |
| The fictional places are in effect are short films without the visuals that require Soundmarks (Schafer) and layers of sound that are appropriate to the environments of 1925.<br><br>The veridicality of sounds could be increased by the sounds responding dynamically to the participant's position, in terms of volume and intensity. | How could this be achieved using the hardware of the smartphone without external sensors or head-mounted devices? See participation design table fig.1 for concurrent discussion ➔ |
| The order of the narrative is determined by the order that the different zones are encountered. | How do the participant's make sense of the story? See narrative design table fig.1 for concurrent discussion ➔ |

| | |
|---|---|
| The zones can be liked to entering a re-enactment of an historical location. The participant has accidently discovered this access to the past. | How do participants know where to walk? See participation design table fig.2 for concurrent discussion ➔ |
| How are the relationships between the voices and the travel destinations established? | See sound design table fig.3 for concurrent discussion ➔ |
| What are the relationships between the real-world locations and zones? | See participation design table fig.2 for concurrent discussion ➔ |
| The spatial sound has been created using in-ear binaural mics that encodes my morphology into the recordings. Binaural sounds produced in post-production use averaged head related transfer function (HRTF) data. | Is it necessary to use HRTF data, create a different version for different head sizes (as used in *Papa Sangre* (2010) smartphone game)? |
| While HRTF tailored more to individual participants would offer a more precise spatial rendering of the sounds, it seems there is sufficient information in the two types of binaural sounds incorporated into the soundscapes for many of the sounds to seem like they occupy space. | How can the interactive be experienced by moving body in space with as little sense of mediation as possible to encourage immersion in story worlds and the suspension of disbelief? See participation design table fig.2 for concurrent discussion ➔<br><br>What are the effects of listening to spatial sound on headphones in a real-world environment? |

Fig. 4, *The Letters,* for Dartington Hall Gardens, version 2 'button selection': Narrative Design Table

| *The Letters,* for Dartington Hall Gardens, version 2, 'button selection' | |
|---|---|
| **Narrative Design Table** | |
| *What is the narrative content and structure?* | *The related questions/issues.* |
| The narrative is constructed from letter fragments that need to be aurally distinct yet still relate meaningfully to one another. Grouping fragments together that come from a particular letter seems necessary for the story to hold together. Mixing letters fragments from different letters together reduces sense. | How can the voice exerts be experienced in ways that maintain narrative coherence despite the effects of drift? See participation design table fig. 5 for concurrent discussion➔ |
| Maintaining the link between the travel locations and the letter fragments helps to develop the narrative diegesis. | How can the letter fragments be aligned with the soundscapes despite the effects of drift? See participation design table fig. 5 for concurrent discussion ➔<br><br>See sound design table fig. 6 for concurrent discussion ➔ |
| Narrative conventions have the potential for imaginative construction of the story world. | In what ways can the story world seem to occupy the real world environment? Jo Reid et al (Ref) suggest integrating physical attributes of the real world into the script. |

Fig. 5, *The Letters,* for Dartington Hall Gardens, version 2, 'button selection': Participation Design Table

| *The Letters,* for Dartington Hall Gardens, version 2: button selection' |
|---|

| Participation Design Table | |
|---|---|
| *How can the participation be designed?* | *The related questions/issues.* |
| Participation developed that turns the map into buttons that trigger sound files of fictional places and the letter fragments. Participants can walk to the areas of the fictional places press the map to manually trigger the voices and soundscapes.<br><br>This loads another screen with an historical image that depicts the actual travel destination of the writer. The participant can then press the screen and play the sound files, pause and listen again, as required. | The new participation design generally functions as designed but it is not successful in terms of the aims of developing an immersive experience.<br>The sound zones now seem disconnected from the voices. A precondition is introduced that the soundscapes can only be heard with the associated voices but the experience seems more like an audio guide because of the focus on pressing buttons.<br><br>There is little connection between the participant's movement and the soundscape. The sounds continue even if you walk into another zone and therefore little connection is made between the environment, movements and sounds. |
| Environmental sounds used to indicate that the application was still working, even when a zone was not triggered, linking together the zones and situating the zones within the gardens. | How does the participant know the app is still working if nothing is happening between pressing the buttons? |
| The on-screen map to use stylistic characteristics of the period 1925 to make further connections between the geographic location and the past. Photographs from the period found of all the locations can be integrated into the interface. James Brocklehurst to develop some initial designs. | How will the participant's presence in a fictional place be indicated? |
| The onscreen map first indicates that there is a fictional place by using a dashed graphic that changes colour when participants have visited the area. | Participants interpret the shaded map areas and labels as buttons, resulting in pressing the screen. Participants also confused about where they are in relation to the shaded areas. |

**Fig. 6,** *The Letters,* for Dartington Hall Gardens, version 2: 'button selection': Sound Design Table

| *The Letters,* for Dartington Hall Gardens, version 2: button selection' | |
|---|---|
| **Sound Design Table** | |
| *How can the sound be designed?* | *The related questions/issues.* |
| In response to the issues of the fictional places and voice points drifting of alignment with plotted positions due to GPS inaccuracy a static binaural Rome and San Francisco habour zones have been made by placing the sound sources along a timeline as a soundscape and layering the associated voices at specific points. This enables control over when voices are heard and how they sit within the fictional place. | Do static sound locations make the experience predictable? |
| There seem to be sufficient variables in the location so that the static sound files do not | |

| | |
|---|---|
| seem too contrived and also mitigate issues of drift. | |
| A number of sounds were first thought to issue from the real-world. Some commented that they still did not know which of these sounds were recorded. | The simulation of sensory cues has potential for creating illusions and misperceptions. |
| There have been four sets of recordings for each character in order to find the most appropriate voice. Feedback from people who knew the people, actual recordings of their voices (although much older) and recordings of actors from the 1920's with relevant nationalities and backgrounds have been used to inform the last voice recordings. | Jane Grant asks how will the weight of the body be in the character? Previous work has used footsteps or rustling of clothing/keys but there are difficulties here as these sounds can become repetitive and draw attention to the artifice of the work. Further experimentation is required to understand to what degree it is necessary to directly signify the physicality of the character as occupying the physical space. See sound design table fig.12 for further development of how the characters become present. |

Fig. 7 *The Letters,* for Dartington Hall Gardens, version 3, Text Messages: Narrative Design Table

| *The Letters,* for Dartington Hall Gardens, version 3, Text Messages. | |
|---|---|
| **Narrative Design Table** | |
| *What is the narrative content and structure?* | *The related questions/issues.* |
| A new story is written in response to the archive that contextualizes the letters as secret encoded documents. A friend sends you a message about finding some mysterious GPS coordinates. They ask you to track them down and they lead you to the gardens at Dartington Hall. By aligning the GPS coordinates you discover the secret messages encoded as historic letters. Was this a genuine discovery or are you being used for a covert mission? Are they friendly or enemy forces? | See participation design table fig.8 for concurrent discussion➔ |

Fig. 8 *The Letters,* for Dartington Hall Gardens, version 3, Text Messages: Participation Design Table

| *The Letters,* for Dartington Hall Gardens, version 3, Text Messages. | |
|---|---|
| **Participation Design Table** | |
| *How can the participation be designed* | *The related questions/issues.* |
| The story creates a new rationale for discovering the letters and a mystery to solve. A series of clues lead you to find more coordinates and ask the participant to solve the mystery. | |
| The new narrative seeks to overcome issues of GPS drift and contexualises the letters differently and allowing for a new participation mechanism. It works by the participant receiving a series of apparently real text messages that suggest that secret | This mechanism works but the relationship with the letters is complicated and requires further integration into the experience, how can this be done? |

| organization has hidden data in the cloud as audio files, disguised as voice recordings. Going to a location specified by GPS coordinates allows you to pick the secret messages encoded in the audio letters. Rather that pressing buttons or waiting for the participant's position to be recognized the participant actively hunts for the GPS co-ordinates. James Brocklehurst has coded the participation mechanism and with the text message screen. | |
|---|---|

**Fig. 9** *The Letters,* for Dartington Hall Gardens, version 3, Text Message: Sound Design Table

| *The Letters,* **for Dartington Hall Gardens, version 3, Text Message.** | |
|---|---|
| **Sound Design Table** | |
| *How can the sound be designed* | *The related questions/issues.* |
| Using text messaging sounds and the vibrate function adds realism to the premise that the participant is really receiving a text. | The recordings of the existing letters make sense within the new narrative framework but the soundscapes lose their original rationale. |

**Fig. 10** *The Letters,* for Dartington Hall Gardens, version 4, LociOscope: Narrative Design Table

| *The Letters,* **for Dartington Hall Gardens, version 4, Locioscope, Published. iTunes. iTunes.** | |
|---|---|
| **Narrative Design Table** | |
| *What is the narrative content and structure?* | *The related questions/issues.* |
| GPS drift cannot be overcome technically but it could be integrated into the experience. The phone becomes a device for 'tuning' into the past. This also gives a rationale for why participants are engaging in the activity. | How can this idea be communicated? |
| The instructions at the beginning of the experience can contextualise the app as tuning/time travel device, via an instruction manual. The instructions also provide more of the back story of the app. | Some participants said they would like more historical information and the ability to access more of the archive. There are issues here for the app to have multiple purposes that potentially dilute each other.<br><br>See participation design table fig.11 for concurrent discussion ➔ |

**Fig. 11** *The Letters,* for Dartington Hall Gardens, version 4, LociOscope: Participation Design Table

| *The Letters,* **for Dartington Hall Gardens, version 4, LociOscope, Published. iTunes. iTunes** | |
|---|---|
| **Participation Design Table** | |
| *How can the participation be designed* | *The related questions/issues.* |
| Participants expect the same kind of functionality as Google maps, such their position appearing on the map and zooming in for more detail. | Some participants, especially those unfamiliar with the location get lost in the garden or can not place themselves on the map, how can this be overcome? |

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| Including landmarks on the map that can be zoomed in on, such as sculptures and architectural features may help navigation. The map requires greater colour contrast in order to overcome issues of sunlight on the screen. | |
| Indicating the participant's position with a symbol/avatar would help to indicate the position. | |
| GPS drift is still an issue. Represented environments do not necessarily appear where they are depicted on the map, affected by weather and weak coverage. | How can the issues of drift be overcome? |
| Drift cannot be overcome technically but it could be integrated into the experience as a feature. Participants have to 'tune' into the zones, using their device. | How can 'tuning' be integrated into the narrative and the sound design? See narrative design table fig.10 for concurrent discussion ➔ See sound design table fig.12 for concurrent discussion ➔ |
| The 'tuning' participation mechanism can also be used to stop people walking through the fictional places. Parameters can be introduced that mean the tuning sounds occur if they move out of zone. | See sound design table fig.12 for concurrent discussion ➔ See narrative design table fig.10 for concurrent discussion ➔ |
| Unseen tuning clouds (not on the participant's map) can be sit between the fictional places so the tuning sounds can be 'picked-up' without always finding a fictional place, to create more game play. | Even while standing still listening can still occasionally be affected by drift and the fictional places 'tune out'. Some participants commented negatively about this. Although it can be annoying it is still congruent with the narrative rationale of the tuning device. |
| JB implemented the agreed fixes to the last iteration. The preconditions for retriggering work and mean that zones do not overlap or retrigger before specified time and restart from the point last listened to. If the participant leaves the zone, then they only listen to some of the letters. The other option is that the sound file continues playing to the end but then as the participant continues to walk it is not aligned with correct location. Possible solutions include that the participant is instructed to listen to the end. | |
| Participants' say they require more detailed instructions. | How can the instructions be integrated into the experience? |
| The styling of the app can maintain the 1920's aesthetic of machinery from the era. Explanation and instructions can be contained within a manual. | Do these detailed instructions now seem too long? Should there be the potential to skip or for summaries while playing? |
| Participants would like a restart button in the event that they receive a phone call, text or any other interruptions to their experience. | However engaged in the experience, make believe seems always couched within the prosaic requirements of real-life |

**Fig.12** *The Letters,* for Dartington Hall Gardens, version 4, LociOscope:  Sound Design Table

| The Letters, for Dartington Hall Gardens, version 4, Locioscope, Published. iTunes. iTunes | |
| --- | --- |
| **Sound Design Table** | |
| *How can the participation be designed* | *The related questions/issues.* |
| The sounds of radio tuning are introduced at the ends of soundscapes to indicate that the link with the past has been broken. Tuning in of the radio is a device for allowing access to the past but it also allows the listener to witness the transformation of signification between sound as static that fills and flattens space and static that becomes a recognizable object. We enter the revolving door and arrive in another place. | How can the effect of tuning-in be created, rather than just signaling the beginning or end of fictional places? <br><br> See participation design table fig.11 for concurrent discussion ➔ |
| Clouds of 'tuning' sounds of various radio frequencies sit in between the fictional places and voices. These clouds blend with the fictional places that have similar sounds at the beginning and ends of the files. | See participation design table fig.11 for concurrent discussion ➔ |
| The soundscapes provide the spatial dimensions and characteristics of the story world through the depicted sound sources. The visual is augmented with binaural sounds that may begin to become indistinct from sounds in the surrounding world. Certain sounds may also seem incongruous or impossible. This addition of spatial cues can unsettle the relationship of the body in the environment. It brings into question that which exists just between your ears and which exists outside. There is ambiguity. | Both the recorded binaural sound and that occurring in the environment offer perceptual cues. Recorded sound does not escape the materiality required for its propagation. But how does interpretation occur? |
| Although fully dynamic binaural sound is not possible without other hardware some dynamic elements have been implemented. | Developed with JB aligning proximity of the participant to a point with volume of the sound node. |

**Fig. 13** *The Letters,* for Plymouth University, version 4, LociOscope: Narrative Design Table

| The Letters, for Plymouth University, version 5, LociOscope | |
| --- | --- |
| **Narrative Design Table** | |
| *What is the narrative content and structure?* | *The related questions/issues.* |
| Re-situating the existing narrative structure into an urban environment. There are no direct connections between the story and the location. Arguably the act of 'tuning into' the past could conceivably occur anywhere. | How is the story's interpretation affected participation by this location? <br> See participation design table fig.14 for concurrent discussion ➔ <br><br> How is the story's interpretation affected by sounds in the location? <br> See sound design table fig.15 for concurrent discussion ➔ |

**Fig. 14** *The Letters,* for Plymouth University, version 5, LociOscope: Participation Design Table

| *The Letters,* **for Plymouth University, version 5, Locioscope** | |
|---|---|
| **Participation Design Table** | |
| *How can the participation be designed* | *The related questions/issues.* |
| The participation mechanism of 'tuning into' voices and locations from the past is situated over the campus in places that have a visual connection with the soundscapes such as by water or in the park or streets with Victorian buildings. City zones are situated where there are crowds and traffic. | How is the participation mechanism affected by sounds in the location? See sound design table fig.15 for concurrent discussion ➜ |
| The acts of stopping standing and listening can seem unusual in this environment and can make participants feel self-conscious. In the garden this was not seen to be out of the ordinary. | What participations feel permissible depends on the environment. Breaking with conventions is possible but more acceptable to some user groups than others. See participation design table fig.23 for subsequent discussion in museum setting |

**Fig. 15** *The Letters,* for Plymouth University, version 5, LociOscope: Sound Design Table

| *The Letters,* **for Plymouth University, version 5, Locioscope** | |
|---|---|
| **Sound Design Table** | |
| *How can the participation be designed* | *The related questions/issues.* |
| Ambient sounds in this location have a markedly different affect on the perception of soundscapes and voices.  Volume and proximity of ambient sounds can mask recorded sounds. The veridicality and spatial qualities of recorded binaural sounds can also be enhanced having visual and/or auditory connections with the real-world location. | |
| Recorded sounds can have symbolic visual or auditory connections with the location but the real-world location as a conduit for a conducive atmosphere for imagining is perhaps more important. | What are the properties of conducive atmosphere of imagining? |
| The presence of many people in the location can mask recorded sounds and affect participation in the space. | See participation design table fig.14 for concurrent discussion ➜ |

**Fig. 16** *The Letters,* for Plymouth City Museum and Art Gallery (test) version: Narrative Design

| *The Letters,* **for Plymouth City Museum and Art Gallery (tested with EW & JB)** | |
|---|---|
| **Narrative Design Table** | |
| *What is the narrative content and structure?* | *The related questions/issues.* |
| Experimentation in the museum was designed to experiment with the sound environmentss and indoor navigation for a forthcoming Dartington exhibition. | What are the affects of the layering of sound in the museum that was designed for the gardens? What are the affects on the listening experience? See sound design table fig.18 for concurrent discussion ➜ |

| | What are the affects on the participation? See participation design table fig.17 for concurrent discussion ➜ |
|---|---|
| The fictional places are places in rooms that have a thematic connection with the space. San Francisco harbour is located in the maritime section, Rome in the neo-classical entrance hall. | Some zones have a closer connection than others with the fictional places. This could be problematic in terms of making sense of the narrative. How can these issues be overcome? |

Fig. 17 *The Letters,* for Plymouth City Museum and Art Gallery (test) version: Participation Design Table

| ***The Letters,* for Plymouth City Museum and Art Gallery version (tested with EW & JB)** | |
|---|---|
| **Participation Design Table** | |
| *How can the participation be designed* | *The related questions/issues.* |
| The fictional places are plotted over the building plan of the museum. Each room becomes a fictional place. | How can the sound files be triggered in the museum? What is the listening experience of the fictional places in the museum? See sound design table fig.18 for concurrent discussion ➜  How can the participant's position be monitored? |
| Experimentation with indoor navigation techniques for plotting the participant's position. Trialing the NavIndoors API, developed by SenionLabs | Insufficient Wi-Fi strength for accuracy of the NavIndoors API. The Wi-Fi SLAM agreed to use of their application but was bought shortly after by Apple and became unavailable. |
| A button room selection version possible but logical integration into the narrative and sound is required to avoid previous issues of button selection. | See participation design table fig.5 for previous discussion ➜ |

Fig. 18 *The Letters,* for Plymouth City Museum and Art Gallery (test) version: Sound Design Table

| ***The Letters,* for Plymouth City Museum and Art Gallery (tested with EW & JB)** | |
|---|---|
| **Sound Design Table** | |
| *How can the sound be designed?* | *The related questions/issues.* |
| How are *The Letters* soundscapes experienced in the museum? | Visitors, groups and individuals speaking, audio playing within the galleries (mostly in temporary exhibitions) and music instruments available for visitors to play in the world histories room are the main sounds that can mask recorded sound.  Each room has different sonic qualities, in terms of reverb, flooring, room height, hard surfaces and heating system. |
| How can soundscape compositions be developed in response to the findings from the campus version? | Perception of recorded sounds varies according to the listening environment. |
| | How can soundscapes be developed that have greater relevance to the museum? |

**Fig. 19** *The Lost Index – Landscape with Figures,* version 1 – Suggestion. Published. iTunes: Narrative Design Table

| *The Lost Index – Landscape with Figures,* version 1: Suggestion. Published. iTunes. | |
|---|---|
| **Narrative Design Table** | |
| *What is the narrative content and structure?* | *The related questions/issues.* |
| Further experimentation with integrating the real world into the story. In this experiment the museum becomes the setting for the story and a painting as a visual connection between the real and the imaginary. | There are different layers of representation – the story taking place within the museum, that of the painting and the imagined story world. How can the participant bring these together? <br><br> See sound design table fig.21 for concurrent discussion ➔ |
| Using conventions from familiar genre can potentially prompt an attitude of make-believe. | How can the sci-fi genre be utilized in the real-world environment? |
| Initial testing with museum staff indicated a general enthusiasm for the novelty of introducing the sci-fi premise into the museum but also some dislike. | This seems to be a matter of taste rather than cogency. One person mentioned that they thought the wording and premise of the human hard-drives required more clarification. |
| How can a feeling of presence in the story world be evoked? The participant can be the protagonist in the narrative. Developing on the findings of *The Letters*, physical movement in the story world can occur concurrently with movement in the story world. | How can participation be integrated into the narrative? <br> See participation design table fig.20 for concurrent discussion ➔ |
| The language used in hypnotic inductions is generalized in order that the participant can fill in the 'gaps' with their own particular experience, *"Whatever you see is all right"* (Weitzenhoffer, Hilgard & Kihlstrom 1996:8) and encouraging participants to "*think of*" feeling relaxed or "*Imagine that you are holding something heavy in your hand*" (1996:21). <br><br> The app will not be used to hypnotise participants but prompt focused attention so that suggestion can be used enhance imagining and potentially affect the perception of recorded sounds as a real world sounds. | |
| Looking at the painting can be used as a structure for the narrative. | Participants commented that it was easier to imagine the more distinct elements in the foreground than inside the church that is a minor element of the picture in the foreground. Does asking participants to image what can't be seen in the image while also asking to imagine what can be seen in the painting highlight the potential discrepancy between the different types of engagement? |
| The initial introduction introduces narrative tension in terms of the museum being under threat but this is not maintained during the imaginative engagement with the painting. How can the narrative tension be reestablished in the final part of the game? | The game completed screen relates to the narrative at the beginning but more narrative tension could be reintroduced in the number entering section if the game is not completed. |

**Fig. 20** *The Lost Index – Landscape with Figures,* version 1 – Suggestion. Published. iTunes: Participation Design Table

| *The Lost Index – Landscape with Figures,* **version 1: Suggestion. Published. iTunes. iTunes.** | |
|---|---|
| **Participation Design Table** | |
| *How can the participation be designed?* | *The related questions/issues.* |
| A simple mechanism that integrates the phone into the narrative is required. | The narrative delivered via a phone call. See narrative design table fig.19 for concurrent discussion ➜<br><br>See sound design table fig.21 for concurrent discussion ➜ |
| How can navigating between rooms and triggering sound files be integrated into the story? | In response to instructions in the phone call participation with the phone, for example, pressing buttons can indicate that the participant is in a particular room. How can you stop participants just clicking through? |
| Moving to particular rooms needs to be integral to the story. | See narrative design table fig.19 for concurrent discussion ➜ |
| In what ways can focused attention on the painting and imaginative engagement be achieved? | Techniques from hypnotic induction can be used to encourage focused attention and imagining. See narrative design table fig.19 for concurrent discussion ➜<br><br>See sound design table fig.21 for concurrent discussion ➜ |
| The participant's reflection becoming the drawing of a face on the screen was too faint to be really effective and perhaps a moving or blinking face or eye may have focused attention more successfully. | Redesign of the face on the screen may make this more effective. |
| How can attention be maintained? | Introducing a game element while engaging with the painting could further engage participants. |
| Participants commented that they liked the game but most found the memory task either confusing, not sufficiently explained or too difficult. Participants wanted more to happen in relation to the data that they input. | Simplifying the memory task and developing the conclusion to the narrative would potentially make the experience engaging. |
| Participants commented that they required a pause button for when they were interrupted. | Interruptions, predominantly in the form of other visitors, presents a problem for the general premise of using focused attention to evoke a sense of presence in imagined environments within the museum. Ideally these techniques are most effective when there is one person participating at a time or if a group is taking part they do not converse with one another. This kind of behaviour would need to be integrated into the narrative and participation mechanism, as museum engagement is often a social activity. |

| | |
|---|---|
| Some participants found it difficult to concentrate on the painting for almost ten minutes, while others did not find the length a difficulty. | The experience continuing across different paintings in the room was suggested by participants. Further testing is required to explore these issues further. |
| There is an error with the replay button at the end, triggering two sounds at once. | |

**Fig. 21** *The Lost Index – Landscape with Figures,* version 1, Suggestion. Published. iTunes: Sound Design Table

| *The Lost Index – Landscape with Figures,* **version 1: Suggestion. Published. iTunes. iTunes** | |
|---|---|
| **Sound Design Table** | |
| *How can the participation be designed* | *The related questions/issues.* |
| Building on the findings of *The Letters,* binaural recordings of museum rooms were where layered with the fictional soundscapes to acoustically integrate the narrative with the 'real world' experience. | Acoustic integration was coupled with the participant's movement.<br><br>See participation design table fig.20 for concurrent discussion ➔ |
| A spatial soundscape of the painting was created using techniques developed in *The Letters,* using key sounds plotted at various distances from the imagined position of the participant on the depicted path, as indicated by the narrative. | This technique seems to be fairly affective with participant's commenting that the sounds surrounded them.<br>See participation design table fig.20 for concurrent discussion ➔<br><br>There is some contradiction as the sounds surround the participant but the visual correlate only extends in front of the participant, this however was not commented upon and does not seem to be a distraction to the experience. |
| The sounds of walking up stone steps were omitted in the first version of the app as the inclusion of continuous footsteps can seem incongruous when the participant is standing still. | One participant commented that the lack of footsteps going up the tower spoiled the realism of the sound. A number of participants found imagining inside the church move difficult because the sounds did not correlate with the picture as only the church's spire is depicted in the painting. Basing the narrative and sound purely on what is depicted in the painting may be more effective in terms of evoking a sense of presence in the hybrid environment.<br>See narrative design table fig.19 for concurrent discussion ➔ |
| The use of the phone ring tone and hang-up sounds added realism to receiving the phone call. | Sounds which move between the real-world and the story world can help to evoke a sense of presence in the environment.<br>See narrative design table fig.19 for concurrent discussion ➔ |

**Fig. 22** *The Lost Index – The Turning* (version 1, treasure hunt with buttons) Narrative Design Table

| *The Lost Index – The Turning* **(version 1, treasure hunt, with buttons)** | |
|---|---|
| **Narrative Design Table** | |
| *What is the narrative content and structure?* | *The related questions/issues.* |
| The narrative concept extends the first *Lost Index* plot. Now the effects can be felt in the museum building, as it begins to turn inside out. The threat must be stopped but unseen enemy spies are following you and sometimes prevent from completing your task, will you be able to stop the turning? | How will the narrative be communicated? |
| In the first iterations the narrative was given in the beginning phone call. Participants commented that they found the introduction too long and wanted more narrative development during the game. | The subsequent iterations additional phone calls introduced more narrative content during the game and less at the beginning. |
| Initially the museum guards were framed as imposters to be avoided. The museum rejected this premise and the imposters become unseen with the museum guards' whistling used to signal that danger was present. | How can obstacles and narrative threats be introduced? See participation design table fig.23 for concurrent discussion ➔ |
| How can narrative tension be increased and how can the participant experience the effects of the lost index? | See sound design table fig.24 for concurrent discussion ➔ |

**Fig. 23** *The Lost Index – The Turning* (version 1, treasure hunt with buttons) Participation Design Table

| *The Lost Index – The Turning* **(version 1, treasure hunt, with buttons)** | |
|---|---|
| **Participation Design Table** | |
| *How can the participation be designed* | *The related questions/issues.* |
| The participation takes the form of a 'treasure hunt'. Initial iterations had one set of objects to find. | How can re-playability be introduced? |
| Twenty-five objects were assigned different categories and a random selection of five was generated. James Brocklehurst implemented the code. | Looking for the objects took considerable time in the initial iterations, particularly if participants were not familiar with the museum. |
| In the next iteration a message on screen indicated if an object from the list was present in a particular room, in order to reduce the time searching for objects. | Participants often worked out that they could press the room buttons without actually going to the room in order to work out more quickly where to search. As a result, incorrect soundscapes trigger that are not related to where participants are standing.<br><br>See sound design table fig.24 for concurrent discussion ➔ |
| An on screen message reminds participants to press the room button | Participants often forget to press the room button.<br><br>Alternative navigation mechanisms are required to identify the location of the participant and trigger the audio. Bluetooth will be used in the next prototype. |

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| The third iteration was tested with a range of age groups, some found the objects easy to find, others very difficult. A range of difficulty of objects was introduced in terms of the obscurity of the objects, introducing confusion with identical objects, and numbers that are not self evident as they may be dates or index numbers.<br><br>Familiarity with the museum may be a factor in the level difficulty experienced. | How does the level of difficultly affect the experience of engagement with the narrative?<br><br>Participants said that they could not remember the objects. An inventory was implemented that could be accessed from a link from the main screen. |
| Randomly generated whistling was used to signal that danger was present. This was accompanied by an onscreen message requesting that the participant returns to the entrance hall. Some chose to ignore the message and concentrate on finding the objects. | See narrative design table fig.22 for concurrent discussion ➜<br><br>How can the participants be compelled to acknowledge the obstacles that make the game less straightforward? |
| Introducing narrative content via further phone calls can also be combined with game obstacles. | See narrative design table fig.22 for concurrent discussion ➜ |
| The initial phone call uses suggestion to attempt to influence the user's perception of the environment as moving. | What are the boundaries between pretending to see something move and actually perceiving movement? |
| Some participants in the older age group requested clearer instructions and an indication that playing again would be a new experience. | There was a significant disparity in understanding of the game and the narrative between participants who were familiar with playing screen-based games and those who were not.<br><br>Some participants from the 35- 55 age group found the experience stressful and did not wish to engage in the behaviours prescribed by the narrative (looking out for impostors, not drawing attention to yourself, etc.) |

**Fig. 24** *The Lost Index – The Turning* (version 1, treasure hunt with buttons) Sound Design Table

| ***The Lost Index – The Turning,*** **version 1 (treasure hunt, with buttons)** | |
|---|---|
| **Sound Design Table** | |
| *How can the participation be designed* | *The related questions/issues.* |
| Creating represented environments by audibly transforming the ambient sound in the location. | What is the phenomenal experience of incrementally transforming the environment? |
| The aims of the composition for the 'encroaching' store were not to superimpose its spatial qualities but its atmosphere. Key sounds were overlaid (shelving, lights, heating system, packaging, boxes, etc.) | In order that a sense of presence in a story world may be experienced, to what extent do the physical particulars of an environment need to be phenomenally available, either through simulation or suggestion? |
| The store sounds are increasingly audible but they do not have the effect of superimposing a different environment but add another layer and subtly changing how the real-world environment is perceived. | What are the relationships between the phenomenal experience of a story world altering, adding to or becoming superimposing on a real-world location? |

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|---|---|
| The time limit for completion of the task and the emphasis on game play become participant's main focus. | How does game play affect perception of sound?<br>See participation design table fig.23 for concurrent discussion ➔ |
| Participants commented that they found that the recorded sounds often blended into real-world sounds whereby they could not tell which was recorded. | If a recorded sound blends seamlessly with the 'real-world' location they may not be attributed to the story world. Is a sense of difference or acknowledgment of the particulars of the story world necessary for a sense of presence? |
| Participants commented, *"the sound made the game seem more real"*. Some participants, unfamiliar with playing screen-based games, said that they found the sound stressful. | When the game mechanism is the main focus of participants' attention does the sound function more to augment the real-world? Does acting in particular ways bring the story world into the real-world location? |

### Developing the ninth prototype, The Turning, version 2, treasure hunt, with Bluetooth

In order negate the link between triggering sounds with pressing buttons an optimally positioned Bluetooth beacon was positioned in each of the rooms to automatically trigger the soundscapes. This meant that soundscapes could only be heard in the rooms they were designed for and simplified the game mechanism.

**Fig.25** *The Lost Index – The Turning* (version 2, treasure hunt, with Bluetooth) Narrative Design Table

| *The Lost Index – The Turning* **(version 2, treasure hunt, with Bluetooth)** | |
|---|---|
| **Narrative Design Table** | |
| *What is the narrative content and structure?* | *The related questions/issues.* |
| *The Lost Index – The Turning,* used with Bluetooth beacons. | |
| Script changes made to the instructions reflect the development of the interface that indicates if the participant is in a particular room. Participants are told that the app is picking up environmental volatility readings and encouraged to check if there are any objects in range. | |

**Fig. 26** *The Lost Index – The Turning* (version 2, treasure hunt, with Bluetooth) Participation Design Table

| *The Lost Index – The Turning* **(version 2, treasure hunt, with Bluetooth)** | |
|---|---|
| **Participation Design Table** | |
| *How can the participation be designed* | *The related questions/issues.* |
| Bluetooth beacons are situated in the centre of each room. The sensitivity fluctuates so they cannot be used in the museum environment as sensors for dynamically responsive sound. They can be used to indicate if a participant is in the room or not, switching the soundscapes on and off. | How soundscapes triggered by these Bluetooth beacons stop soundscapes repeating if a participant re-enters a room? |
| Drawing from the navigation experiments of *The Letters* the soundscapes should continue from the point where the participant left the | |

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|---|---|
| room rather than restarting each time they enter, to avoid repetition. | |
| | |

Fig. 27 *The Lost Index – The Turning* (version 1, treasure hunt, with Bluetooth) Sound Design Table

| ***The Lost Index – The Turning*** **(version 2, treasure hunt, with Bluetooth)** | |
|---|---|
| **Sound Design Table** | |
| *How can the participation be designed* | *The related questions/issues.* |
| A crossfade of 10 seconds is used to minimize between room soundscapes to minimize the participant's awareness of an abrupt change in the recordings | |

**Appendix 2**


**Peirce's Pragmatism in Five Papers**


This supplement considers James' pragmatism in relation to that of Charles Sanders Peirce, particularly focusing upon five of Peirce's published articles[171] that identify a number of points of divergence with James. The ideas of truth and doubt, rational thought and the feeling of rational thought, time and presence and introspection will be considered here. Peirce focuses on the idea of *general* terms that emphasizes the normative function of language that takes place within a community of uses. Peirce also formalizes a modal conception of the applicability of beliefs, that he refers to as the "Modality of the possible" (1905b: 494) and the nature of thought as linguistic sign.

James (1898)[172] attributed the term pragmatism to Charles Sanders Peirce's article 'How to Make Our Ideas Clear' (1878). However, as John Dewey (1916: 709) later commented, the word itself does not appear in this essay. Peirce notes, in a letter[173] to his former student and mathematician at Harvard, Christine Ladd-Franklin, he makes no mention of the term pragmatism itself until the entry in *Baldwin's Dictionary of Philosophy and Psychology* (1902) Vol. 2. It is here that Peirce, citing his seminal article 'How to Make Our Ideas Clear', defines pragmatism.

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[171] Peirce, C. S. (1877)'The Fixation of Belief
Peirce, C. S. (1878) 'How to Make Our Ideas Clear'
Peirce, C. S. (1905) 'What Pragmatism Is'
Peirce, C. S. (1905b) ''Issues of Pragmaticism'
Peirce, C. S. (1906) Prolegomena to an Apology for Pragmaticism'

[172] As described in chapter 1, the word pragmatism was given its first public expression by James at the California Union address[172] given in New York in 1898.

[173] In an article by Christine Ladd-Franklin, a former student of Peirce, 'Charles S. Peirce at the Johns Hopkins' *Journal of Philosophy, Psychology and Scientific Methods* (1916) Vol.13, No.26, p.715-722, Ladd-Franklin cites a letter from Peirce to herself, circa 1902. Peirce's letter describes that he introduced his doctrine of pragmatism, at 'The Metaphysical Club' he claims he initiated in the 1860's with members including Chauncey Wright, Nicholas St. John Green, William James, and others, usually with half a dozen members present at a time. "It was there that the name and the doctrine of pragmatism saw the light."(1916: 719) Peirce says a paper he had written "was much admired" by the members. It was later written up and printed as, 'The Fixation of Belief ' and printed in (1877) *Popular Science Monthly*, November.

> "I should say that the word pragmatism does not appear in that article, nor did I insert it in the Century Dictionary or ever use it in print previous to the article in Baldwin's Dictionary [1902: 322]." (1916: 719)
> "Pragmatism is one of the results of my study of the formal laws of signs, a study guided by mathematics and by the familiar facts of every-day experience and by no other science whatever. It is a maxim of logic from which issues a metaphysics very easily. It solves almost all problems of metaphysics in short metre and it solves them in such a way as never to bar the way of any positive inquiry. It also has the gratifying effect of encouraging the simplest ideas of religion and anthropomorphic conceptions of the Absolute." (1916: 720)

"The opinion that metaphysics is to be largely cleared up by the application of the following maxim for attaining clearness of apprehension: 'Consider what effects, that might conceivably have practical bearings, conceive the object of our conception to have. Then, our conception of these effects is the whole of our conception of the object.'" (1902:321)

Peirce's pragmatism[174] is an approach to establishing the truth of an idea. Ideas express beliefs. Peirce puts forward that thought is one system of relations[175] whose sole function is to resolve doubt and to produce belief; "belief is a rule for action" (1923 [1878]: 41). Peirce (1923 [1887]: 41) defines three properties of belief: first there is awareness; then there is doubt (caused by something sensibly external or by an abstract system such as mathematics); then belief assuages doubt. Belief becomes established as a rule for action or habit[176]. Peirce illustrates the idea with a simple example: a man with various coins in his pocket could pay for his fare with a five-cent nickel or five coppers; there is a moment of doubt (unless already decided by a previous habit) before he fixes upon a belief about the coins he will select – the action that shall follow. Thought "melting" (1923 [1887]: 39) from doubt to belief, belief determines our actions.

Doubt, for Perice, may arise from an irritation or a question but it can also be "feigned" (1923 [1887]: 39) and plays an essential role in the production of scientific enquiry. Doubt can be "feigned" in the sense of thinking about possible outcomes to a theoretical problem, such as considering the advantages of different routes while in a station waiting room and working out how we *should* act, he suggests. A comparison, although not one that Peirce would draw himself, would be with James' idea of a 'will to believe', our choice to assert beliefs.

For Peirce the same belief can be expressed in different ways, however, if the distinction does not appease a different *doubt* and produce a different "rule for action", then there is no difference in belief[177]. A tune played in a different key is still the same tune, analogizes Peirce

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[174] Peirce announces his renaming pragmatism to pragmaticism in his essay 'What Pragmatism Is' (1905a: 165) in order to distinguish his doctrine from ideas that pragmatisim had become associated with, as expressed by James, Schiller and unspecified others that were at variance with his own theory.

[175] Thought is one system of relations, sensations are another. (1923 [1878]: 40).

[176] Scottish empirical philosopher and psychologist Alexander Bain's writings on habit, in *Emotions and the Will* (1876) and *Senses and the Intellect* (1879) influenced both Peirce and James (1890a: 122-123). James (1890b: 6, 12) cites Bain's view that sensations do not have knowledge of things and that as concurring with his own view. James (1890a: 245) praises Bain's notion of the stream of thought in *Emotions and the Will* with reference to his own formulation of the stream of thought. He critiques Bain's limited account of the self (1890a: 306, 313, 330, 345) and is highly critical of his account of the association of thoughts (1890a: 2, 569, 589, 593, 598, 600-601). James critiques Bain's accounts of attention (1890a: 402) discrimination and comparison (1890a: 485, 530), memory (1890a: 653) and imagination (1890b: 69) perception of space (1890b: 186, 271-272, 281) reality (1890b: 295-296, 319, 322-323) reasoning (1890b: 348, 361), movement (1890b: 372 -373) instinct (1890b: 406, 411, 419, 429, 432) emotions (1890b: 458, 463, 466, 472, 474, 476, 484-485, 681) and criticism of his views on the will (1890b: 493, 525, 551-555, 580)

[177] This view is expressed by James in *Baldwin's Dictionary of Philosophy and Psychology* (1902) Vol. 2, p.321 and again in James' discussion of the pragmatic method in his *Pragmatism.* (1907:45)

(1923 [1887]: 41-42). Belief is a rule for action that results in the exercise of "volition". It is a "stopping-place" and also a "starting-place" for further thought and further doubt (1923 [1887]: 41). Beliefs are also subject to deception, for example, perceptual illusions, or our unclear thinking may cause us to attribute subjective appearances to objective characteristics of an object. Grammatical structure (1923 [1887]: 43) may also cause us to erroneously suppose that a word is expressing two different ideas, he says.

In *Baldwin's Dictionary of Philosophy and Psychology*, Vol. 2 (1902: 322) James' description of pragmatism puts that a concept expresses practical consequences, if the concept's meaning is "recommended or expected" to be true. Peirce in the same entry critiques[178] and seeks to distinguish his maxim from that of William James, by saying that the truth of a concept directs us to practical facts that "contribute" to reasoned thought, and the meaning of thought essentially does not privilege an *individual's* particular reaction but directs us towards *general* ideas.

> "If it be admitted, on the contrary, that action wants an end, and that that end must be something of a general description, then the spirit of the maxim itself, which is that we must look to the upshot of our concepts in order rightly to apprehend them, would direct us towards something different from practical facts, namely, to general ideas, as the true interpreters of our thought… the only ultimate good which the practical facts to which it directs attention can subserve is to further the development of concrete reasonableness; so that the meaning of the concept does not lie in any individual reaction at all, but in the manner in which those reactions contribute to that development." (1902: 322)

In contrast James' emphasis is upon determining the meaning of proposition in terms of its *particular* future experience[179].

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[178] Peirce rejects what he sees as James' interpretation of pragmatism expressed in *Will to Believe* (1896) (although the word pragmatism is not mentioned in this book) and *Philosophical Conceptions and Practical Results* (1898). Peirce's criticism is that James' expression of the maxim, taken as the end of belief is action, has the potential idealist implications (1902:322). Peirce's later pragmaticism (1905a: 174-176) emphasizes "*generals*" (truths) rather than "conduct" as outcomes to of clear idea ideas. The Peirce's aforementioned letter (circa 1902) to Christine Ladd-Franklin, later published *Journal of Philosophy, Psychology and Scientific Methods* Peirce continues to outlines his views on the differences between William James' formulation of pragmatism and his own. Exerts from the letter cited in the 1916 article:
"Although James calls himself a pragmatist, and no doubt he derived his ideas on the subject from me, yet there is a most essential difference between his pragmatism and mine. My point is that the meaning of a *concept*...lies in the manner in which it could *conceivably* modify purposive action, and *in this alone*. James, on the contrary, whose natural turn of mind is away from generals, and who is besides so soaked in ultra-sensationalist psychology that like most modern psychologists he has almost lost the power of regarding matters from the logical point of view, in defining pragmatism, speaks of it as referring ideas to *experiences,* meaning evidently the sensational side of experience, while I regard *concepts* as affairs of habit or disposition, and of how we should react." (1916: 718) Peirce's argument "…*concepts* as affairs of habit…" dovetails with Brandom's (2011) linguistic pragmatic account of rationality.

[179] John Dewey (1916: 711) makes the point that a key difference between Peirce's doctrine of pragmatism (later re-

In the 1905 article in *The Monist*, 'What Pragmatism Is' Peirce develops his explanation of doubt and *general* ideas. He asserts that philosophy should be based on the experimental method and refines his definition of pragmatism as method of testing the truth of propositions. The rational meaning of a word or other expression has "a conceivable bearing on life" (1905a: 162-164). Only practical outcomes can result from experiment, therefore if phenomena are defined accurately, experiment can affirm or deny of the meaning of a word or concept.

> "… a conception, that is, the rational purport of a word or other
> expression, lies exclusively in its conceivable bearing upon the conduct of
> life; so that, since obviously nothing that might not result from experiment
> can have any direct bearing upon conduct, if one can define accurately all
> the conceivable experimental phenomena which the affirmation or denial
> of a concept could imply, one will have therein a complete definition of the
> concept, *and there is absolutely nothing more in it*. For this doctrine he[180]
> invented the name pragmatism." (1905a: 162-164)

When Peirce refers to experiment he is using the language and method of empirical science and applying it to thought and practical engagement with the world. In rational life "…an experiment shall be an operation of thought" (1905a: 170). This is an idea that James (1909b: 59) also concurs with taking our engagement with the world as serial hypothesis testing.

Peirce (1905a: 167-68) says there are many things that you do not doubt, that "you must regard as absolutely truth", at least until something causes you to believe otherwise. While you may think that some of your beliefs[181] may not be true this only shows that doubt is a "*limen*" (a threshold or boundary) that is only activated by a "finite stimulus".[182] Through the course of experience you *tend* towards belief or certainty that persists overtime as habit, the opposite of which is doubt.

> "Belief is not a momentary mode of consciousness; it is a habit of mind
> essentially enduring for some time, and mostly (at least) unconscious; and
> like other habits, it is, (until it meets with some surprise that begins its
> dissolution,) perfectly self-satisfied. Doubt is of an altogether contrary genus.
> It is not a habit, but the privation of a habit." (1905a: 168)

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named as Pragmaticism) and James' principle of pragmatism is James' emphasis in determining the meaning of proposition in terms of its *particular* future experience and Peirce's emphasis on future conduct (action) *generally.*

[180] Peirce is writing about himself in the third person here (1905a: 162-164). Here Peirce seems to be distancing himself from the provisional value of truth asserted by James, although Peirce (1905a: 177) says that while ultimate truth is attainable we would probably not recognise it to be so.

[181] Peirce (1905a: 168 foot notes) makes clear he is using the word truth in opposition to the word doubt and not to qualify degrees of truth.

[182] Peirce (1905a: 167-68) does not define here exactly what he means by "finite stimulus", we can perhaps infer that doubting my belief that there will be bad weather this summer, is produced by my conception of weather as unpredictable.

Peirce emphasizes that an important aspect of rational thought is "self-control" (1905a: 169). The rational person is not controlled by habits but can exert some self-control over future actions. It should not be inferred that any arbitrary characteristics could be assigned to a concept but that "a process of self-preparation" will tend towards an action. Self-control can be measured by the absence of self-reproach, or a slight feeling of self-reproach, that comes with reflection upon the act. If actions are repeated many times they become a tendency, where self-control is more difficult to exert. Peirce describes tendency as a lack of reflection or habit. For Peirce an aspect of rational thought is "self-control" suggesting that without which, habits or feelings may guide us. James (1897: 63) gives a different emphasis saying the basis of rational thought may not necessarily be logical, however ideally framed, and what we take to be rational is identified by "subjective marks", an aesthetic sense by which we recognize rationality.

> "The only answer can be that he will recognize its rationality as he recognizes everything else, by certain subjective marks with which it affects him. When he gets the marks, he may know that he has got the rationality…A strong feeling of ease, peace, rest, is one of them. The transition from a state of puzzle and perplexity to rational comprehension is full of lively relief and pleasure." (James 1897: 63)

The relief of moving from a state of perplexity to rational comprehension can be said to be the *feeling* of rationality. James (1897: 64) seeks to naturalize his claims, reporting that recent psychological speculations suggest that physical conditions occur not only when "nerve-currents" are discharged, but also when there is resistance. James makes the analogy with physical conditions: we feel no particular pleasure in breathing normally but distress if we find ourselves unable to breath; when performing an action easily no particular thought seems to accompany it as opposed to when it whereas the physical or mental task proves difficult, "we experience distress."

> "This feeling of the sufficiency of the present moment, of its absoluteness, — this absence of all need to explain it, account for it, or justify it,—is what I call the Sentiment  of Rationality." (James 1897: 64)

How do you distinguish between absolute truth – perfect knowledge, and what you not doubt? Peirce in his essay 'What Pragmatism Is' (1905) asserts that it is possible in two ways: Firstly, rational thought is self-conscious awareness that attempts to persuade the emerging temporal sense of self. The nature of thought is largely that of a linguistic sign. In Peirce's words:

> "His thoughts are what he is "saying to himself," that is, is saying to that other self that is just coming into life in the flow of time…When one reasons, it is that critical self that one is trying to persuade; and all thought whatsoever is a sign, and is mostly of the nature of language." (1905a: 170)

Secondly, "the person is not absolutely an individual"(1905a: 170); the intellectual, societal context[183] of an individual is that is more significant than the particular person,  "…the man's circle of society, (however widely or narrowly this phrase may be understood,) is a sort of loosely compacted person)" (1905a: 170).

These two parts of the individual, the critical self-consciousness and the 'social self' enable the discernment of perfect knowledge from a belief which is not in doubt – through a process of rational thought in relation to sensory experience in the flow of life, and the ideas and beliefs held by others (currently or historically) within social context. Peirce says, when the pragmatist talks of truth resulting from experiment, he means experiments are considered not as events isolated from life but part of "a single collective experiment" (1905a: 172)[184].

However, its is not in the experiment but in "*experimental phenomena"* that rational meaning consists, whose effects are not of the past but in the future.

> "The rational meaning of every proposition lies in the future. How so? The meaning of a proposition is itself a proposition…" (1905a: 173)[185]

Meaning is a translation of a proposition in the forward flow of translations and propositions. But of the many possible meanings, Peirce rhetorically asks, which is the true meaning? From pragmaticist[186] position, it is the meaning most applicable to "human conduct" and subject to rational thought (1905a: 174), not special circumstances but in every situation and purpose[187]. Therefore the true meaning is a *generally* applicable description of phenomena, while allowing that future experiments may replace the current general description[188].

What does it mean to be *general?* Peirce says there are two ways for the pragmaticist of being general. A statue of a solider represents individual men "it is *objectively* general". The word

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[183] Arguably the difference between Peirce's view – the framing of the individual as operating within the context of society – and James' emphasis on the relevance of "the experienceable environment" as the context for meaning in 'The Function of Cognition' [1887] *The Meaning of Truth* (1909: 42-43) is that of terminology.

[184] James uses the idea of hypothesis testing in the context of individual's experience, emphasizing that truth is a relation experience. James (ref) also refers to the value of the empirical method in epistemological inquiry in various disciplines. Peirce identifies how the individual negotiates between these two axes of the individual and societal knowledge.

[185] James (1912) makes the point that the meaning of concepts leads to further concepts.

[186] See previous note 3 regarding Peirce's change in name from pragmatism to Pragmaticism.

[187] This is a key difference between James and Peirce's positions, as John Dewey (1923) has pointed out. James emphasizes the *particular* situation of a propositions occurrence for its meaning, whereas Peirce frames the argument differently saying that signs function because their meaning is that which is shared by the community of users. Comparisons can be drawn with Wittgenstein's notion of language-games on this point.

[188] For James the meaning of truth is not a static relation applicable in every situation. The real difference between Peirce and James' positions here is that Peirce is arguing that the term truth is not empty it has content in itself.

'solider' is general in the same way. While the name "George Washington"[189] is specific and not general. 'Subjective generality' of a spoken or written noun is a *type* or *form* to which externally existent or imagined objects *conform,* "but cannot exactly be." (1905a: 176)

> "...it may be admitted that the very meaning of a word or significant object
> ought to be the very essence of reality of what it signifies." (1905a: 176)

What is real?[190] For the pragmaticist Peirce (1905a: 176) says, ethical beliefs, for example, fix habits of how one should behave, irrespective of individual circumstances. The concept of the 'real' and 'reality' are also *general* in that they are not subject to individual interpretation [the concept of the real can be thought of as benchmark] "That is *real* which has such and such characters, whether anybody thinks it to have those characters or not" (1905a: 176). We "virtually assume" that the truth of every matter taken seriously is that of "the adopted definition of the real" – what is real is the belief that truth will be obtained about matters eventually, "in that the ultimate opinion is real" (1905a: 177). While opinion concerning some ideas may change gradually over generations postponing the ultimate fixing of meaning.[191]

Peirce (1905a: 177) challenges the common assumption that what is relative, such as the properties of an object, cannot be real. When we see an individual object *being* the colour 'red' it is not relative, "...being red is not *itself* relative to sight; it is a real fact" (1905a: 177).[192] Generals can be real and "*physically efficient",* in the commonsense way that for human purposes things function. There is a difference between the idea of 'the real' as a *general* meaning whose ultimate meaning is postponed but toward which humanity is heading, and the categorization of individual instance of objects or properties that are assigned the *general* category of real or not real.[193]

> "Generality is, indeed, an indispensable ingredient of reality; for mere
> individual existence or actuality with out any regularity whatever is a
> nullity. Chaos is pure nothing." (1905a: 178).[194]

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[189] Peirce says, the pragmaticist acknowledges that proper names are common to propositions, but says that rational meaning does not support their individual relation to a particular person, for example. Proper names are not treated as exceptions to the principle of generality, instead 'proper names' are treated as a general category whose function is denotative, to "point-out" the name and what it is equivalent to (1905a: 176).

[190] James' discussion of the perception of reality in *Principles of Psychology Volume 2*: 283 offers a similar analysis with different emphasis.

[191] Peirce's 'adopted consensus' is akin to James' function of belief as satisfactory fitting with existing beliefs, within a particular context, be it within science, mathematics or personal beliefs.

[192] James' view concurs with Peirce's emphasis here on the value of experiential facts.

[193] Peirce makes the point that truths are generally believed more often than falsities and if this wasn't the case every step towards genuine knowledge would seem like a miracle! (1905a: 178).

[194] Chaos is nothing for Peirce in that it is undifferentiated by attention and concepts. For James however 'pure experience' is undifferentiated sensation but it is not empty it is full, poised potential. James says in *Some Problems of Philosophy,*

This categorical distinction between reality and nothing also serves to highlight Peirce's view that there are physically extended objects.[195]

A true proposition asserts what is real regardless of what is thought about it. A general conditional proposition is "*real generally",* in that it "influences" future human conduct. This is the pragmaticist meaning of every concept, says Peirce[196]. However, the pragmaticist does not take exiting forms or established meanings of words to be the only realities in the world (1905a: 179). The essential difference in being between an act in the future and an act in the past "…is the practical attitude of the thinker towards the two is different." (1905a: 178-179). Continuity[197] is an essential part of reality and central to thought[198]. Continuity is an essential part of reality and what *generality* becomes "in the "logic of relatives"[199]. Generality is thought and continuity "is the essence thought" (1905a: 180).

> "…[the] theory involved the recognition that continuity is an indispensable
> element of reality, and that continuity is simply what generality becomes
> in the logic of relatives, and thus, like generality, and more than generality,
> is an affair of thought, and is the essence of thought." (1905a: 180)

Peirce (1905a: 175) makes the qualification that while phenomenalism may be "kind of" pragmatism, the empirical experimentation that pragmaticism puts forward does not privilege phenomenal sensory experience or consider experiential equivalents to words and general ideas but excludes the sensory experience, and pursues meaning through rational propositions. Pragmaticism does not hold that meaning ends in the practical action, even if explained as being the result of a thought process, because this would put an end to rational explanation that follows action. For the (Peircian) *pragmaticist* the highest order is not action but a "process of evolution", where what exists comes to "embody" the general meanings to which they are *destined* and will be arrived at by rational thought. In the "higher stages" of

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"The perceptual flux as such, on the contrary, *means* nothing, and is but what it immediately is. No matter how small a tract of it be taken, it is always a much-at-once, and contains innumerable aspects and characters which conception can pick out, isolate, and thereafter always intend…It shows duration, intensity, complexity or simplicity, interestingness, excitingness, pleasantness or their opposites." (1911:49)
James' explanation of the flux shows the difference between the rationalist approach that is reductive and the experiential approach that includes the thickness of lived experience.

[195] James says he asserts that there is an external reality but ultimately we cannot be sure of this fact.

[196] This is a matter of context for James (1909MT) If someone believed that the world is flat, that may be true for them but it would not make it necessarily true for others.

[197] Peirce's use of the word continuity here seems to be used as a synonym for his term 'synechism' that is briefly mentioned at the beginning of the article: if the doctrine of pragmatism (pragmaticism) is proved true, "…it would essentially involve the establishment of the truth of synechism" (1905a: 167-168).

[198] Peirce's continuity of thought has resonances with James' discussion of what it means for ideas to 'satisfactorily' 'fit' with existing ideas and only modify them slightly in order that may be accepted as true.

[199] The 'logic of relatives' is the subject of an earlier article by Peirce (1887: 162) of the same name. The expression refers to a particular logic of relationships between terms in a proposition when terms fixed to an object become general. Peirce gives the example of the word "slayer" becomes general when fixed to its object – "slayer *of* giants".

evolution this takes place more and more through *"self-control"*, which Peirce says (1905a: 178) is the rationale for calling meaning *general*.

In the essay 'Issues of Pragmaticism' (1905b), Peirce revises and develops his doctrine of pragmatism expressed in his earlier articles. The reiteration of the maxim put forward in *'How To Make Our Ideas Clear'* (cited above) is qualified with an "indicative" example that encapsulates the discussion put forward in 'What Pragmatism Is' (1905a), published in *The Monist* six months earlier. It puts that the meaning of a concept is the practical consequences that would result; that the consequences are rational; they are conditional upon the circumstances and desires that would occur if the concept – "symbol" (standing in for terms and variety of notational systems) – is accepted.

> "The entire intellectual purport of any symbol consists in the total of all general modes of rational conduct which, conditionally upon all the possible different circumstances and desires, would ensue upon the acceptance of the symbol." (1905b: 481)

Peirce further defines belief; there are not only *indubitable* propositions – statements of truth that are not doubted – but there are also *indubitable* inferences (1905b: 481), beliefs that can be rationally inferred[200] from propositions. Peirce says,

> "…the term "reasoning" ought to be confined to such fixation of one belief by another as is reasonable, deliberate, self-controlled." (1905b: 482)

The "ultimate nature"[201] of reasoning is being conscious, not conscious simply in terms immediate consciousness or the awareness of feeling something, but a tendency to respond towards a particular stimulus in a particular way, a habit of thought (1905b: 482).

Rational consciousness cannot be understood in terms of one of its processes but only in "the process of self-control in its *entirety*" (1905b: 482). The operation of rational self-control takes various forms but two parts can be distinguished: the regulation of irrational energy and the free will to choose and avoid the consequences of indecision. Imaginary actions,[202] the analysis of actions that should result if a particular belief should be adopted, is a vital element

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[200] Peirce seems to be referring here to the form of inference he calls Abduction and defined in a following paper in his series on Pragmaticism, 'Prolegomena to an Apology for Pragmaticism' (1906: 511), in where he defines Abduction as, "Abduction, in the sense I give the word, is any reasoning of a large class of which the provisional adoption of an explanatory hypothesis is the type. But it includes processes of thought which lead only to the suggestion of questions to be considered, and includes much besides."
N.B. Peirce had already discussed abduction in earlier papers including, 'Hume on Miracles and Laws of Nature' (1901). In. Peirce, C., & Wiener, Philip P. (1966). *Selected writings: (Values in a Universe of Chance)*. New York: Dover, p. pp. 289-321.

[201] Peirce defines his use of "ultimate nature" here, "meaning in that characteristic element of it that is not reducible to anything simpler" (1905b: 482).

[202] An earlier formulation of this idea by Peirce seems to that of "feigned doubt" (1923 [1887]: 39). See above for discussion. (This idea is close to what contemporary psychology and analytical philosophy would refer to as counterfactual reasoning, Byrne, R. M. J. (2005) *The Rational Imagination*. Mass.: MIT

of both these operations. Peirce differentiates between, "the formation of habits under imaginary action", (1905b: 482) in moral life that are concerned with our motivations, and conduct in applicable situations and imaginary action in intellectual life where thinking is "the vehicle of forms" for possible actions, only limited by its own powers.[203]

Peirce (1905b: 483) says, based on current scientific knowledge consciousness is not something separate from the body. Reasoning is a class of mental operations that if the person is aware, even vaguely, of its principle as well as its conclusion then it is a logical argument, Peirce refers to as '*logical argumentation*'[204]; in cases of reasoning where the principle is accepted but its basis is not known, Peirce calls these *acritical inferences,* and as "*associational suggestions of belief*"[205] where one belief informed by a belief of which the reasoned is unaware.

In matters of science, beliefs are open to reasonable doubt and challenged by experiment. In practical life our beliefs may be dominated by *indubitable* beliefs that are uncritical and can be said to have a resemblance to instincts (1905b: 485). These beliefs are "invariably vague" (1905b: 486) in terms of their principle, however those that are dominated by sentiment, such as a mother's love for a child, rational argument finds difficult to shake.[206] These *indubitable* beliefs can be separated from "paper" beliefs, such as the superiority of the intellect of men, that when exposed to reasoning move from belief to doubt (1905b: 486). Peirce makes a distinction between the *definite* and the *determinate* (1905b: 486). If a belief is *determinate* its characteristics inhere within it or is predicated of it or its negative.

Exertion of self-control over habits requires rational judgment: perceptual judgment, *indubitable beliefs* that are recurrent, *indubitable* beliefs and *indubitable* inferences. Peirce (1905b: 484) says pragmatism "…is a study of that experience of the phenomena of self-control[207] which is common to all grown men and women…" – rational belief that result in deliberate conduct is the basis for symbols. A sign refers to external things and to every kind of thought. Thoughts are objectively indeterminate. A thought is objectively *"general"* in that it is up to the interpreter to carry the interpretation further to another sign (1905b: 486).

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[203] James' discussion of the role of belief in rationality is discussed in 'The Sentiment of Rationality' and 'Will to Believe' in *Will to Believe* (1896)

[204] "…if the reasoner is conscious, even vaguely, of what his guiding principle is, his reasoning should be called a *logical argumentation*" (1905b: 483).

[205] Indirect connections can be made here between Peirce's '*associational suggestions of belief*' between an individual's ideas and James' analysis of hypnotic suggestion by one person to another in *Principles of Psychology* (1890b)

[206] Peirce acknowledges that some beliefs are based on sentiment whereas James seems to suggest that sentiment is the instigator of many of our beliefs, 'The Sentiment of Rationality' *Will to Believe* (1896)

[207] Peirce acknowledges that the criticism could be leveled here concerning a potential infinite regression of causes of effort that precede deliberate conduct but he counters this with a rhetorical response - who seriously considers that effort has infinite beginnings or endings? (1905b: 484).

> "Every utterance naturally leaves the right of further exposition in the utterer; therefore, in so far as a sign is indeterminate, it is vague, unless it is expressly or by a well-understood convention rendered general." (1905b: 487-488).

When an affirmative predication is rendered *general,* every essential character of the predicate is affirmed whereas a negative predication "vaguely denies some essential character" (1905b: 488). Peirce says honest people try to make the meaning of their words determinate, with little room for alternative interpretation. However, unless they are dealing with precise and abstract languages, like mathematics, "their meaning consists in the implications and non-implications of their words" (1905b: 488). Implications are indeterminate.

> "That is to say, the character of their meaning consists in the implications and non-implications of their words; and they intend to fix what is implied and what is not implied." (1905b: 488)

Something is "*general"* as long as the proposition is not *either* true or false and something is "*vague"* as long as the principle of contradiction[208] does not apply to it. Nor can two opposite propositions can be true simultaneously (1905b: 488). A sign is *definite*[209] if it is not vague and has been determined.

The formal conception of propositions Peirce divides into three terms: *determination, generality,* and *vagueness*[210] after Kant's[211] "functions of judgment" (1905b: 490).

> "It is a curious fact that in the logic of relations it is the first and last quantifiers of a proposition that are of chief importance." (1905b: 490)

Peirce offers the example: to affirm that something is a horse is to confirm all the particulars of a horse. To deny that something is a horse is to "vaguely" deny some, or all, particulars of a horse. When a predicate is unanalyzable, for example when knowledge or experience does not permit it (the horse *often frolics*), it does not affect whether the predicate is affirmed or

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[208] Principle of contradiction - an idea cannot be true and not true simultaneously.

[209] Peirce (1905b: 488-489) differentiates between *definite* and *precise*, with precise reserved for signs such as numbers and dates.

[210] In formal logic Peirce says (1905b: 490) these concepts will be referred to as, *singular* (determinate)*, universal* (general)*, particular* (vague or indefinite).

[211] Peirce affirms the basis of Pragmaticism in Kant's *Critique of Reason*, with Peirce's removal of Kant's idea of the *a priori* transcendental basis of knowing things.
"The Kantist has only to abjure [renounce the belief] from the bottom of his heart the proposition that a thing-in-itself can, how ever indirectly, be conceived; and then correct the details of Kant's doctrine accordingly, and he will find himself to have become a Critical Common-sensist." (1905b: 491)
Peirce refers to a "Critical Common-sensist" as one who upholds his the first maxim of Pragmaticism (1905b: 481) - There are not only *indubitable* propositions (unquestionable) but there are also *indubitable* inferences. For James there are not *indubitable* propositions, truth is a value in experience (1909)

denied, except in cases where there is a definite division "or borderline" between the two, and then the concepts of *determination, generality,* and *vagueness,* "re-appear".

"Thus, a point of a surface may be in a region of that surface, or out of it, or on its boundary. This gives us an indirect and vague conception of an intermediary between affirmation and denial in general, and consequently of an intermediate, or nascent state, between determination and indetermination. There must be a similar intermediacy between generality and vagueness... there lies just beneath the surface of what is explicitly said, the idea of an endless series of such intermediaries." [212](1905b: 490-491)

Peirce (1905b: 492) defines pragmaticism as agreeing with the scholastic doctrine of realism, he interprets this as meaning there are real objects that are *general* and among these there are "existent singulars" in whose qualities inhere or are predicated of. But there are also "real *vagues* and possibilities*",* both of which are contradictory terms that reject the *general* meaning. Peirce (1905b: 494) says in order to understand this we need to analyse modality. In the simplest case of a subjective meaning, if someone does not know if it is true it is called "*possible.*" To understand the ultimate nature of meaning you need to understand modality and what it consists. Words used according to their characteristic applicability have the "Modality of the possible" (1905b: 494) in relation to what is known. If something is not known to be false then it is "*possible",* if it is known to be "true" "it is more possible". Merely possible has a *vague* possibility. Direct recollection of the state of things is the most subjective modality, that of the "mode of *Actuality"*. If there is only one meaning that "accords" with alternatives this is the "mode of *"Necessity"* (something has to be the case). If there is indeterminate between possibilities this is the "mode of *Possibility.*"[213]

The proposition that something *can* happen has *objective* Modality, Peirce says. The position, 'I can go to the beach if I like', is not reliant on the act having already have happened. Imaginary objects with imaginary qualities have the "*mode of objective possibility"* (1905b: 495) of the real: an object is imagined whose properties conform to the laws of gravity. The properties of the proposition are real (in that real has a *general* meaning) because they belong to the substance of the proposition*.*

To identify an object is not merely a matter of its name, a diamond is identified as such because of the *real* properties it possesses, "...since the real is that which is such as it is regardless of how it is, at any time, thought to be" (1905b: 495). The property of hardness is a "real relation" between diamonds. However, to determine the diamond's molecular structure certain tests would need to be administered – "exposed to agency of some kind" from which "a

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[212] Thematic connections can be made here with James' description of the edges experience "chromatic fringes" (1890) expressed as a subjective experience, rather than within a formal logical framework.

[213] Peirce (1905b: 493-494) identifies other types of subjective modality that refer to "Signs or Representamen" (Peirce (1906) renames Representamen as the category Sign) where the "Utterer" does not possess total knowledge, such as an act of hypostatic abstraction (the predicate is turned into a relation – wool *is* warm is transformed by an act of hypostatic abstraction to wool *possesses* warmth. The adjective or predicate is transformed into an extra subject from warm to warmth). Peirce gives the example if thinking of the possibility that something *may* happen where there is no evidence, while it may not violate logic it can give the meaning "variableness" and the *appearance* of "Chance". This can make meaning seem as if it is as vague as the person's thought that it reflects. In the opposite case some one may affirm a belief for which there is no evidence or is contrary to the evidence.

*sensible* result *would* ensure" that practical experiment to date has resulted in. The reality of the properties of an object can be considered as "the truth of a general conditional proposition" – The stone is a diamond *if* it has *x* molecular structure. There is no such thing as an isolated fact, therefore, says Peirce, for a pragmaticist, to say an object possesses a particular property is to "subscribe to the doctrine of Modality" where "real": *Actuality, Necessity* or *Possibility* is assigned to the meaning of a proposition. The interaction between a subject and an agency that results in potential or actual behaviours, Peirce says is what is meant an object "possessing" a character (1905b: 496).[214]

For the doctrine of Pragmaticism what is the ultimate nature of meaning is the conceived *hypothetical* consequences[215] of conditional propositions, that are able to be true as a result of sufficient investigation thus far, independent of any other judgment, representation or symbol (1905b: 492-493).


## Time

Time, taken as an objectively real reality, is an accomplishment of facts. The past acts upon us in the same way that existent objects act upon us. Peirce distinguishes between propositions that express "pseudo-beliefs", things that may happen in the future, and real truths (1905b: 496-497). The future is neither "Necessary" or "Possible" and therefore as a "Negation" it cannot change the "Modality" of a proposition. The Present instant is "so inscrutable" (1905b: 497) that its reality is brought into question.

> "It is plainly that Nascent State between the Determinate and the Indeterminate that was noticed above." (1905b: 498)

The Pragmaticist analysis of time asks what bearing does it have on conduct. Whereas our memory of the past, as "our storehouse of knowledge" (1905b: 498) is what we base our actions. Even the results of new experiments only become applicable to conduct when they are reduced to a principle already known. When we say we know the state of something in the

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[214] John Dewey (1935: 703-704) identifies this argument as one of Peirce's most important contributions, "What in my opinion is Peirce's most characteristic philosophical contribution, namely, his original theory of the relation between the existential and the logical, is wholly meaningless if it is not seen that he is speaking of possibility and generality as ways or modes that with respect to actualization are potential and general, being actualized only under individualized conditions of interaction with other things." Dewey's emphasis in own philosophy of the importance of the "situation" for meaning perhaps is reflected in his choice of Peirce's most important contributions. Dewey, D. (1935) 'Peirce's Theory of Quality'. *Journal of Philosophy.* Vol. 32, No.26. (Dec. 19, 1935), pp. 701-708. Stable URL: http://www.jstor.org/stable/2016281 Accessed: 09-03-2015 11:10 UTC

[215] In Peirce's 1878 article 'How to Make Ideas Clear', Peirce critiques his example of the diamond in cotton wool that sought to illustrate the idea that if a diamond was embedded in cotton wool then it could not practically be said to have the qualities of hardness, the quality of hardness being *merely* a question of nomenclature. Peirce says his use of the word *merely* was wrong because the qualities of an object are not just names by which they are known but categories that are either true or false. These *generals* are either real qualities or imaginary qualities. Peirce reminds us that the original maxim of Pragmaticism is based not on what did happen but whether the conclusion reached that the success of future practical or logical conduct *would* lead to that classification, of hardness in this case, based on "…the belief which alone could be the result of investigation carried *sufficiently far."* (1905b: 492).

present, we know how it used to exist, either a few seconds ago or further back, "Thus, from whatever point of view we contemplate the Past, it appears as the Existential Mode of Time." (1905b: 498)

The future has a bearing on our conduct and is the only conduct we can control. Some may argue all future conduct is possible, but with real questions, Peirce (1905b: 498) says, we *shall* or *should* be able to infer certain conduct *if* particular circumstances are favourable. In drawing conclusions or inferring consequences conditionals express the future in propositions, such as, 'I can go to the beach *if* I like'.

The present is a nascent state between Determinate and the Indeterminate states; our knowledge of the present is based on what has past, from which we can or *should,* be able to infer facts. Pragmaticist doctrine says that the meaning of belief in concepts of the past, even of that outside of our memory, exists in terms of how we act in the future (1905b: 498).

## Presence and Introspection

"Introspection is wholly a matter of inference" from what has past. Peirce (1905b: 499) says that we are immediately conscious of feelings in the present moment, however these feelings are not of an ego. We *infer* 'a self' from feelings that have past.[216] The present moment is too fleeting for objective reference to itself therefore the Present is an external object. Peirce (1905b: 499) invites us to suppose that the Attitude of the Present is either perceptive or conative – involving effort-resistance[217] (1905b: 499). As a perception, the Present is known to the percipient immediately, as external[218] – not subject to the perceiver's will. But if the Present moment is known externally, it entails inferring the Present from feelings that are in the past, therefore the consciousness of the present instant from a Pragmaticist perspective, "can only be a conative Attitude"; an effort-resistance of the becoming of the memory of what is about to have happened.

> "The consciousness of the present is then that of a struggle over what shall
> be; and thus we emerge from the study with a confirmed belief that it is
> the Nascent State of the Actual.[219]" (1905b: 499)

Experimental enquiry leading to "characters independent of what anybody may think them to be."

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[216] This conception of the present as retrospective is an argument is central to James' explanation of time self, perception and conception of things in *Principles* (1890a 606)

[217] "since involving effort-resistance" is John Dewey's definition of Peirce's use of the word conative. Dewey, D. (1935) 'Peirce's Theory of Quality'. *Journal of Philosophy.* Vol. 32, No.26. (Dec. 19, 1935), pp. 707

[218] Peirce says known externally in that it is "not a hallucination" (1905b: 499).

[219] 'The Actual' refers to the subjective memory of what has past (1905b: 492).

For James the meaning of truth is the difference a belief makes to action - what works in a particular context. For Peirce, truth is what difference a belief makes to conduct but conduct as a "stopping place" (1923 [1887]: 41) leading to further concepts and beliefs. Belief for Peirce is a rational process. Pierce discusses belief in terms of ideas that are *general* - the focus is upon the shared meaning between communities of users. For James belief (1897 *Will*) in some cases may be rational but if there is a choice between rational decisions the choice comprises aesthetics and sentiment. We feel our rational interpretation to be true but if examined closely will reveal that those reasons are largely unsupported by evidence and rest on feelings and supposition that may be influenced.

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