Introspection as institutional practice: reflections on the attempt to capture conscious experience

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Abstract

This paper is concerned with the renewed interest in introspection in mainstream psychology. This has been stimulated by developments such as the interest in the study of consciousnesses itself, the emergence of transpersonal psychology and the realisation that the development of sophisticated machinery to study brain function and brain states invites consideration of experiences that seem to correlate with them. While there have been numerous considerations of kinds of introspective data, and the methodological advantages and problems associated with studying reports of inner experience, there has been little consideration of the linguistic and pragmatic features of introspective reports. In this paper we present an analysis of verbal introspective data produced during an experiment to test for parapsychological abilities, data that constitute examples of 'reporting out loud' introspective data. We examine these data from the perspective of Conversation Analysis and Discursive Psychology, which seeks to identify recurrent and robust properties of the activity of describing. We identify a number of analytic themes that invite further analysis, and conclude by reflecting on the implications of viewing introspective data as pragmatic and socially organised reports for their use as data in the study of consciousness and phenomenological reality.

Introduction: the fall and rise of introspection

Introspective research has a long history in psychological science. In the late 1800s and early 1900s, Wundt and colleagues at the University of Leipzig, and, two of his past students, Külpe and colleagues at the University of Würzburg and Titchener and colleagues at Cornell, trained introspectors to report uninterpreted sensations of immediate experience. The goals of this research effort were, broadly put, to determine the basic elements and structure of thought (Adams, 2000; Boring, 1929; Titchener,

1898; Wundt, 1907). But the project was best by difficulties. There were inconsistent results: Titchener's laboratory identified three times as many 'sensations' as Külpe's laboratory; and it was apparent that different training methods developed by individual researchers, and the attentional stances they cultivated in their introspectors, led to diverse observations on conscious experience. Indeed, the training methods themselves were regarded with suspicion. Thus Depraz observes that 'During Titchener's time, his Cornell colleagues and students were looked on as a 'sect' organized around him, as if the whole idea of a mandatory training was unacceptable and could easily be ridiculed as an 'esoteric' activity' (Depraz, 2003: 108). Experimental psychologists soon concluded that introspection was not a reliable tool for psychological investigations. And then the emergence of behaviourism cast further doubt on the validity of attempts to develop formal methods for the exploration of consciousness and mental life. Thus, in 1913 Watson was able to declare with confidence that 'the time has come when psychology must... no longer delude itself into thinking that it is making mental states the object of observation' (Watson, 1913: 163).

The conventional story - that is, the one found in introductory texts on the psychology aimed at the undergraduate market - is that introspection all but disappeared from experimental psychology's methodological canon. This is despite the fact that - arguably - it has remained a key feature of psychoanalysis, and other kinds of 'talking' therapies (Binswanger, 1958; Rogers, 1951); that it was central to the use of focused interviews in a range of social psychological research; that it was mobilised in psychological research techniques such as protocol analysis (Ericsson and Simon, 1993); and that introspection remains an important tool in the study of attitudes and evaluations in consumer and market research (Gould, 1995; Wallendorf and Brucks, 1993; Woodside, 2004).

In the past decade, however, there has been renewed interest in introspection in mainstream psychology. This has been stimulated, in part, by the interest in the study of consciousnesses itself (for example, see the *Journal of Consciousness Studies*, which was founded in 1994; see the special editions edited by Jack and Roepstorff, 2003, 2004). But it also reflects other intellectual developments. The emergence of transpersonal psychology (Braud & Anderson, 1998; Tart, 1975), for example, has also invigorated interest in the use of introspection to explore the nature of lived experience. And the development of sophisticated machinery to study brain function and brain states, such as the fMRI scanner, invites consideration of experiences that seem to correlate with them (Vermersch, 1999). Despite the discipline's overriding experimental and scientific orientation, then, there is a growing argument that it is important that psychologists pay attention to the lived experience of a mental life; and that this in turn behoves us to examine people's accounts of their subjective states: 'introspection is the *sine qua non* of consciousness. Without introspection, we simply wouldn't know about the existence of experience' (Jack and Roepstorff , 2003: xv).

In a recent review, Cardeña (2004) identifies various methods for the collection of introspective data. There are retrospective reports, such as life histories; there is introspective inquiry by trained observers (usually the researcher) (Varela, 1999); there are 'third person' strategies, such as open-ended interviews to understand how

phenomenal consciousness is perceived (Giorgi & Giorgi, 2003); there are 'thinking out loud' procedures, in which research participants provide a verbal commentary of ongoing experience (Ericsson & Simon, 1993); there is event recording, in which participants make a note every time a particular kind of thought, sensation or experience occurs; and there is the use of experience sampling methodologies, in which participants are provided with electronic prompt/paging devices, and are asked to note what they were thinking or experiencing just before random assigned prompts (for example, Hektner, Schmidt and Csikszentmihalyi, 2006. Hulburt and Heavey, 2006).

He also identifies some of the methodological problems associated with the use of introspective data. Some of these are common to a range of social science methods: for example, in both introspective research and in research interviews, the analyst has to deal with the possibility that research participants forget, or that knowledge, belief and expectations can lead to distortion of recollections, or that people may exaggerate, or may self-censor their experiences, or exhibit social desirability, and thereby provide the kind of responses they think the researcher is looking for (Cardeña, 2004; Fielding and Thomas, 2008). He also observes that demand characteristics (Orne, 1962) of the experimental setting may impact on the collection and character of introspective data. Demand characteristics are 'the totality of cues and mutual expectations which inhere in a social context (e.g., a psychological experiment or therapy situation), which serve to influence the behavior and/or self reported experience of the research receiver or patient' (Orne and Whitehouse, 2000: 469). The concept directs our attention to how a research participant may come to conclusions about the experimenter's motives or intentions in asking them to perform certain tasks, and will therefore consciously or unconsciously behave accordingly, thus producing experimental results which, though robust, are not related to the variables the experiment was designed to study (for example, see AuBuchon and Calhoun, 1985; Berkowitz and Troccoli, 1986; Bjorkland, Cassel, Bjorklund, Brown, Park, Ernst and Owen, 2000; Fernandez and Turk, 1994; Lampinen, Neuschatz and Payne, 1999; MacLeod, 1999; Orne and Bauer-Manley, 1991; Wooffitt, 2007).

In this paper we present an analysis of verbal introspective data produced during an experiment to test for parapsychological abilities. This analysis is not motivated by a concern with the existence or not of parapsychological phenomena; as we explain below, for the purposes of this analysis, our interest in this kind of experiment is opportunistic, in that the procedure requires research participants to provide concurrent reports on the phenomena of their own consciousness. These are introspective reports of the 'thinking out loud' variety *par excellence*.

Our concern is solely to examine these data to explore the production of introspective data in relation to the context of its production. That is, we wish to explore how ostensibly neutral reports of inner states are discursive vehicles by which research participants deal pragmatically and publicly with contingencies of the setting, thereby displaying their orientation to, and understanding of, the requirements of the institutional context of a formal (para)psychological experiment. In this, our analysis explores issues which parallel the kinds of interpersonal dynamics and their consequence identified by

the concept of demand characteristics, in that we treat the introspective narratives not as mere expressions of private inner experience, but as artefacts of the context of their production.

Empirically, the analysis draws from conversation analysis and discursive psychology. Conversation analysis (CA) examines the tacit knowledge that informs verbal social interaction, and through which participants establish intelligible, meaningful conduct. As such, it sits at the intersection of linguistics, psychology and sociology. One task of CA is to show how utterances or turns at talk are designed to address interactional or interpersonal contingencies (Hutchby and Wooffitt, 1998; Sacks, 1992; Schegloff, 2007). Despite its name, CA techniques may be applied to any form of naturally occurring interaction, including interaction in formal institutional or work related settings (Boden and Zimmerman, 1991; Drew and Heritage, 1992) Indeed, one of the key targets of this strand of CA research is to show how everyday communicative practices may be adapted to the specific requirements of the context, thereby 'bringing off' or realising through discourse practices the institutional character of the interaction (Heritage 1997; Heritage and Greatbatch, 1991). Discursive psychology offers both a trenchant critique of experimental methods and cognitivist assumptions in psychology (which we will not address in detail here) and a radical empirical programme in which psychological topics are re-cast as features of verbal and textual activities. So, discursive psychologists investigate the ways in which psychological terms are used to perform work in discourse, and the ways in which discourse is used to manage implied psychological themes or states (Barnes and Moss, 2007; Edwards, 1995, 1997; Edwards and Potter, 1992; Hepburn and Wiggins, 2007). This broad set of concerns has been explored in relation to (amongst other topics) food preferences and evaluations in mealtimes (Wiggins, 2001, 2002), how recollections and rememberings may be produced to perform a range inferential tasks (Middleton and Edwards, 1990; Potter and Edwards, 1990; Wooffitt, 1994), how personal responsibility is managed in police interrogations Edwards, 2008; (Stokoe and Edwards, 2008) in neighbourhood disputes (Stokoe and Edwards, 2007; Stokoe and Hepburn, 2005), and in studies of the ways by which the relevance of social identities may be established in talk (Antaki and Widdicombe, 1998; Edwards, 1991; Widdicombe, 1993; Widdicombe and Wooffitt, 1995). A recent development of discourse psychological research has been the attempt to investigate the ways in which ostensibly inner psychological and emotional states may be displayed in talk to anticipate or address expectations and requirements of particular institutional settings, such as in calls to a publicly available child protection telephone helpline (Hepburn 2005; Potter and Hepburn, 2003). This development mirrors the long-standing conversation analytic interest in institutional discourse, and is further evidence of the significant degree of methodological and substantive overlap between conversation analysis and discursive psychology (Wooffitt, 2005).

To summarise: our analysis of introspective data draws from conversation analysis and discursive psychology in that it concerns not the workings of mind, but the workings of language use as a socially ordered set of communicative practices. We are interested in the way that reports of what is going on in the head may be designed pragmatically to address practical and social contingencies in the context in and for which they are

produced. Of course, these analyses will have implications for our view of attempts to identify the workings of mind, and we return to these methodological issues later.

Data and methodological issues

The data for this study are transcripts and audio recordings of 24 ganzfeld ESP experiments conducted during the mid 1990s at the Koestler Parapsychology Unit in the Department of Psychology at the University of Edinburgh (Morris ref). In the Edinburgh ganzfeld procedure, research participants are in a highly relaxed state induced by listening to a relaxation tape prior to the start of the experiment. Sensory input is minimised via headphones that play white noise, and opaque semi spheres, taped over the eyes, ensure even light distribution over the retinal field. During an early part of the experiment, a sender in another room (either an experimenter or another volunteer) tries mentally to project features of a moving visual stimulus (in this case, a short video clip, chosen randomly by specifically modified software from a large database, and shown repeatedly) 1. During this stage of the procedure, which lasts approximately thirty minutes, the participant is asked to report verbally whatever images or sensations they are experiencing; to describe everything that comes to mind 2. This descriptive narrative is called the mentation, and, like all the stages of the procedure, is audio recorded. As the mentation is produced, the experimenter can hear the participant through headphones but, the participant cannot hear the experimenter unless he or she activates a switch which enables two way communication. The overhearing experimenter also takes notes of the mentation as it is produced. This is to allow a subsequent review of the mentation. The mentation is reviewed to in part to ensure that the participant has chance to expand upon their experiences and provide more detail and correct the errors' in the experimenter's written record. The mentation narrative is the focus of so much attention because, potentially, it is of great parapsychological significance, as the participant's imagery and snesations may contain clues about the ways in which anomalous information transfer such as extra sensory perception may interact with known cognitive processes. As we are focused only on the mentation narratives, we will not here describe the other stages in the ganzfeld procedure. (For a full discussion of the procedure and its development, see Bem and Honorton, 1994; for a discussion of the effectiveness of the ganzfeld in eliciting ostensibly parapsychological phenomena, see also: Hyman, 1985, Honorton, 1985; Hyman and Honorton, 1986; Milton, 1999; Schmiedler, and Edge, 1999; Utts, 1995).

Mentation narratives, then, are (potentially lengthy) introspective reports produced in isolation, and in the absence of interaction with the experimenter, unless a difficulty arises in the procedure which requires the experimenter's intervention. Extract 1 is a section taken from typical mentation narrative, and is taken from the start of the mentation. (This is transcribed according to the conventions of Conversation Analysis, which are explained in the Appendix.)

(1) (01-18) (The numbers in brackets identify the number of trial; 'P' refers to 'research participant'.)

P: anima:ls: °it's° a- (.) a dogs a horse
(5.4)
white noise is making me think've (.) trains and planes:, °but uh(h)° .hh (0.6)
°(hh)=>I c'n see-< u::=I c'n see° a book
(6.6)
OLD lady passing (2.8) >>'s a<< walking stick (2.3) 'er's an indian dancer
(6.7)
>>there's a<< old lady walking towards me now
(6.9)
song::, called tw(r)igs and see:ds,
(14.0)
a song called (pink=pig slats)
(6.6)
°>I c'n<° see things (.) pa:ssing >sort've< (2.4) patterns in the dogs 'n co:nes,
(33.0)
.hh there's a river (0.6) a waterfall (4.5) th's a big <like a:: (.) >nuclear explosion reflected,< .hh in the wat°er.°
(93.0)
>something< on the white noise:,=sounds like a ban::d .h (.) play:ed backwards.
(14.0)
balloon >I fell like< (.) hh (2.5) .h feel like I'm inside a big balloo:n
(33.5)
.hh feel like I'm >wobbling< from side to si::de
(4.4)
cycling (0.5) >cycling< down north bridge
(6.1)
the big issue.
(2.0)
cold, (.) wind,
((continues))

A common feature of mentation narratives is that participants order their imagery into discrete descriptive units, the reports of which may be punctuated by periods of (often lengthy) silence. Even in the short stretch of narrative in Extract 1, there is a period of silence lasting 93 seconds, and two others lasting over 30 seconds. Sometimes it is difficult to identity the boundaries of descriptive units. For example, the final sequence of the extract, 'big issue. (2.0) cold, (.) wind,' could refer to two discrete sets of imagery. But, there may be a connection: the *Big Issue* is a magazine sold by homeless people on the streets of major cities in the UK, and the imagery of cold wind may well be associated with observations of people selling the magazine in the open air, especially in an often chilly northern UK city such as Edinburgh.

This uncertainty raises a more generic methodological problem: in the analysis of dialogue, the turn by turn development of interaction affords the analyst a 'foot hold' into the data, and proof procedure for checking his or her claims (Sacks, Schegloff and Jefferson, 1974). This is because a turn's design will display its producer's understanding of the action accomplished by the prior turn to which it is a response. So, to paraphrase data from Terasaki's (2005) study, the utterance 'Who?' displays that its producer interpreted the prior turn 'Do you know who's going to that meeting?' as a *pre announcement* of news, and not as a *request for information* about attendees. The analytic leverage available by virtue of the turn by turn unfolding of interaction is not available in the analysis of essentially monologic materials such as the mentation narratives. Warranting analytic claims, therefore, presents distinctive problems, and the authors hope that readers will exercise a degree of latitude in their evaluation of the strength of the analytic claims that follow.

Analysis

In this paper we focus our analysis on two forms of what we call perceptual markers: phrases that portray how conscious imagery comes to the attention of the participant as they concurrently monitor their inner phenomenal experience. Specifically we focus on visual markers, such as 'I see...', 'I can see...', and 'I'm seeing...', and cognitive markers, such as 'I think...', I'm thinking...' and 'I thought'.

We focus on perceptual markers because they are massively common throughout the corpus. In the corpus used in this analysis, there is only one mentation narrative in which no perceptual markers occur. However, it is important to stress that our use of the term 'perceptual markers' should not be interpreted as a commitment to some ontological position on the existence of inner mental processes. In keeping with conversation analytic and discursive psychological traditions, we ask: what kinds of work do these imagery formulations do? We begin by examining references to 'sight', 'seeing', and 'looking'.

Visual perceptual markers

The most commonly used perceptual marker within the corpus relates to visual imagery, with participants often stating that they can see something. An initial examination of the data appears to indicate that the use of such markers is not linked to any specific type of imagery, such as specifically seeing figures or colours. However, the prevalence of perceptual markers relating to sight certainly indicates that participants are prone to formulating imagery descriptions in visual terms.

As in ordinary conversational interaction, perceptual markers are often formed as part of the participant's personal experience, as can be seen in the following two extracts. In both cases, the participant locate themselves in the first person position, stating 'I see and 'I'm seeing'.

(2) (01-69)

((*Mentation starts*))
P: u::m (8.3) I see a::: (.) a=man? in a:: (2) yello:w (.5) ma:cintosh? (.) and a:: (4.1) a lighthou:se (.8) s::sorta thi:ng ˙hhh (.5) e- on a::: (1.2) a (.4) pier? (.5) of (.3) made=o:f (.) s:: (.4) stone?

(3) (01-25)

((*Mentation starts*))
P: I:'m seeing::, (.) eagles: °(h)a° a little=bit hh (5.6) but they're:: <they're very, (.) vague
(11.4)
°bur:° ((swallows)) just kinda birds

The first person nature of the mentation narrative during these extracts is highlighted by the verb tense of 'see' and 'seeing', which position the imagery as being a 'live' or concurrent experience. Both subjects thereby present themselves as delivering a commentary on cognitive/perceptual events that are presented as having only just happened. It is also worth noting that in both cases, the combination of explicitly marked first person perspective, and the visual nature of the mentation experience, takes place during the delivery of the first imagery item in the mentation. The 'live' on going character of the experiences is established at the outset. This acts as a normative interpretative frame through which the status of subsequent imagery can be interpreted, much in the same way in which the initial components of other kinds of largely monologic accounts have been found to circumscribe a range of inferential possibilities for the hearing or reading of subsequent components (Smith, 1978; Wooffitt, 1992; Woolgar, 1980).

The on going live nature of the experience can be further underlined via turn components that reinforce the immediacy of the events being reported.

(4) (01-91)

(11.9) 3
P: >I suddenly see a< rocket (.) (n)hh (1.5) like=that bit at the=E:nd (2.3) which shoots out fire as=it- (.2) (n)HHh (.)˙Hhh (.4) >°°s'rt've°° goes u:p< (4.4) like a jet ca:r
(10.4)

(5) (01-94)

(12.7)
P; ↑flying °like° (2.7) >no:w what I see: are< sha:pes like (2.5) TRIangle:s (.) or (2.4) ˙hh (.) as if the ↑shape of a ba::t but it ver::y >tis very< (.8) stylisti:c hhh (4) like POI:nts

(7.2)

In extracts 4 and 5, the use of 'suddenly' and 'now' depict the participants as capturing their conscious experiences 'in flight', an inference which is supported by the increase in the speed of delivery of that part of the description in which the participants establish how it is they come to be aware of the imagery.

Participants may orient to and exploit different kinds of sight based perceptual markers in extending an initial imagery description. However, the shift between ostensibly synonymous terms may initiate and constitute subtle changes in the very nature of what it is that is being reported.

(6) (01-80)

((*Mentation starts*))
S: °I° see=a bridge (7.5) I'm looking down on=a bri:dge (5) large (6) silver (5.4) bri:dge

In this descriptive unit, the participant's initial turn component is 'I see a bridge'; and in the same way as in the previous two extracts, implies the participant's first person perspective and live nature of the imagery. Having established in such a straightforward way what is being experienced and how the imagery is being obtained (that is, through some form of 'inner eye') during his next turn at talk, the participant shifts from using a direct perceptual marker to a more activity based one: 'I'm looking down'. In itself this is hearable as an upgrade from the original report, since the participant is now providing more information about how exactly he is currently 'seeing' the bridge. But it also highlights the wholly different emphasis that such lexical changes can bring about, since the upgraded description of the bridge imagery place the participant into a very specific relationship physically with what is being visually apprehended in consciousness. So, from simply stating that he can see the bridge, the participant now establishes that his point of view places him above the focus of the imagery.

The use of 'looking' does similar work in the following extracts. In each case, it is produced as a subsequent commentary on the imagery, and it establishes the participants' perspective, thereby subtly shaping the nature of what the imagery is.

(7) 01-05

(17.6)
P: h(h)uh, .hh a t- (.) a foot (0.3) can see the toe::s (1.4) °'s° a big foot* (2.2) got white toenail:s (3.3) I'm looking down on it like it was my, foot* .hh but it's no::t (0.4) °'s too b(h)ig°

(8) (01-82)

(19.2)

P: I=can see: some u::m (.) I'm looking at=the whee:ls='ve and it seems to=be: (.) ˙hhh (0.3) that- it's going=along some sort've concrete tra:ck

(9) (01-52)

(1)
P: an um::: (1.5) an a bus? (2.7) looking at (.4) travelling alo:ng (1.2) on=a bu:s
(9)

In 7, the participant initially reports the appearance of a foot, which is the verified by the report of seeing toes. After more detail on the nature of the imagery the perceptual marker 'looking' establishes a perspective on the imagery, which in turn subtly constitutes how the imagery is being experienced, and indeed, what it consists of. In 8, the participant initiates a turn with an 'I see' component. This is self repaired (Schegloff, Jefferson and Sacks, 1977) and the subsequent formulation uses 'looking' to introduce the focus of the imagery. Finally, in 9, 'a looking' formulation extend a description of imagery which is initially not reported via a perceptual marker, but is simply announced with a questioning intonation.

Perceptual markers can also be used to depict the participants' agency in the experimental procedure. This is apparent from extracts 6 to 9: in three of these, the production of 'I see' formulations or variants depict the participants' passive recipiency of imagery, whereas 'I'm looking markers constitute an activity. This activity may either be a formulation of how the participant is attending to the imagery, or is indeed a component of the imagery itself. But there are other ways visual perceptual markers may be employed by participants' to address issues of agency. In extract 10 below, following the report of the imagery of an eye opening, a subsequent item is reported as being 'in the centre of my vision', a formulation which is very similar to one which is produced in the last line of the extract. We can also see, in the arrowed line, a change in the way the participant marks the imagery as a 'live' experience.

(10) (01-41)

((Mentation starts))
P: hhh (.4) I see:: an ey::e (.2) open↑ing (1.5) °'s° ye:llo:w (2.7) it's flickeri:ng (3.8) >the:re's a< la:rge: oval *sh↑ape (1.3) in the centre >>of my visio:n<< (9.1) ˙hh (.3) >in the< ce:ntre: >there's a< smaller ob*je:ct
(12)
→ >I=do:n't< see anything right ↑now
(22)
˙hh >I-=can see< various obje:cts (.5) moving acro:ss my visions more li::nes °I guess°

An interesting aspect of this change in format when reporting the various mentation images is the way in which the invocation of 'my vision', as well as the objects that are described as passing in front of it, implies a different type of first person. Here the visual

perceptual markers work to position the participant as being akin to an audience relative to the mentation imagery. The purely subjective cognitive experience of describing whatever imagery comes to mind can be set against the lack of agency in terms of how, and indeed what, is being experienced.

The way in which reports of imagery address participant agency evidences an orientation to the institutional properties of the context in which the mentation narrative is produced. All participants were briefed before the experiment as to the design and objectives of the procedure. All were aware, then, that there may have been someone actively projecting thoughts into their minds. For any imagery experienced during the mentation period then, its provenance was potentially at issue, because it could either have been generated by their own minds, or by someone else's. It is therefore unsurprising that issues of agency, ownership and origin of experiences are matters bubbling close to the surface in numerous mentation narratives. (And in relation to this, it is interesting to note that the use of turn components which draw attention to the sudden or immediate appearance of imagery in consciousness, as illustrated in extracts 5 and 6, work, at last in part, to project a degree of surprise, or at least unanticipated recipiency, in the participants' 'coming to awareness' of their experiences.)

This sense of the participant being a passive non agentic recipient of ever changing images is further underlined by the statement ' >I=do:n't< see anything right ↑now', the added temporal element of which ('right now') implies that the participant is orienting towards the mentation section of the ganzfeld procedure as a sequence of linear events.

Here is further evidence that an orientation to the institutional context of the mentation narrative informs the participant's report of his experience. The disclosure that, at that moment, he sees nothing, exhibits an understanding that the role of a 'good' participant is to monitor for conscious imagery, and to report even if there is nothing to report. But it also exhibits the assumption that the absence of imagery may itself be of parapsychological significance, and therefore be interesting to the experimenter. Recall that the participants in the ganzfeld are aware that during their mentation, there is elsewhere in the building a target video clip, playing repeatedly, and that the idea is that they may be able to use extrasensory perception to 'tune in', or 'detect' or 'receive' or somehow gain knowledge of the content of this clip. So they know that the stimulus materials are concurrent and recurrent, and not intermittent. For participants who believe in the existence of ESP, or who are even open to the idea that it may exist, the absence of imagery would be a noticeable and potentially accountable matter. So if ESP is working to produce some forms of imagery at some points of the mentation period, periods when imagery is absent may reveal something about how (and when) the mechanisms that underpin anomalous information transfer work (or don't work). The claim not to 'see anything right ↑now' thereby evidences a relatively sophisticated appreciation of the design and purpose of the experimental context.

The timing of the report that there is nothing to report also displays an orientation to procedural requirements of being a participant. It comes after a nine second period of silence, and, subsequently, there follows a period of silence of 22 seconds before the next

descriptive unit. Although it is not possible to document it here, the periods of silence between discrete descriptive units in this participant's mentation ranges predominantly from eight to 14 seconds, with some outliers of approximately 20 seconds, with the longest being 24 seconds. If the participant had remained silent when he said there was nothing to report (which would have been the most effective way of demonstrating 'nothing to say'), then the total period of silence would have been in the range of 33-35 seconds. This is far longer than other periods in which there is an absence of participation. The production of a report that there is nothing to report at this time ensures that a silence which could have stretched beyond the norm for this participant is broken into two periods of silence, both of which fall within the normal range found in this mentation narrative. This suggests that, underpinning the temporal distribution of descriptive units of conscious imagery, there is the operation of a 'personal metric' (as opposed to a socially organised and publicly demonstrated metric, such as that identified by Jefferson [1987] in her study of silence in conversational interaction). And this constitutes further evidence that there is a tacit sensitivity as to what counts as personally appropriate (or 'regular', or 'non-accountable') participation in this kind of experiment.

Cognitive markers

Given the parapsychological nature of the experiment, it is not surprising that references to 'thought and 'thinking' occur regularly in the way that participants frame how they come to awareness of imagery. On occasions, 'I think' formulations do seem to function as they do in everyday talk-in-interaction, to mark doubt or circumspection in the speaker's confidence in their imagery (REF). For example:

(11) (01-18)

(16.2)
P: hh >some bit a trumpet music< <I think it's louis armstrong
(4.9)

(12) (01-69)

(6.8)
P: train °agai:n° (2.7) >I think it's< (.) tha- japane:se (.7) bulle:t- (.2) °trai:n°
(8.6)

In these cases, the initial components of the descriptive units offer unmarked reports of imagery. In the subsequent expansion of these images, both participants try to flesh out their sensation by offering specification of its character. The use of 'I think' formulations as prefaces to these specifications displays a degree of circumspection about their confidence in the accuracy or adequacy of these explanatory components.

Cognitive markers may also be used in turns that are designed to invite caution about the imagery. In extract 13, the initial component of the descriptive unit is 'I thought', thus framing what follows in such a way as to invite circumspection about its reliability or usefulness to the experiment, a quality which is underlined by the rising and 'self-

questioning' intonation on the word 'face'. (See also Sacks, 1984, and Jefferson, 2005, on the production of incorrect 'first thought' assessments.)

(13) (01-42)

(4.1)
P: >I=thou:ght- I sa:w=a< face?
(24.9)

In the light of this, it is interesting to note that 'thinking' formulations often occur when participants report mentation imagery that is highly unlikely to be related to the stimulus materials they are meant to be parapsychologically sensing. For example in extract 14, the mentation sequence begins with a report of gaseous and changing imagery, This report is unmarked, in that there is no perceptual marker in their production. There is a silence of 17.2 seconds (which is commensurate with other silences between descriptive units in this participant's narrative), and then the participant speaks again.

(14) (01-91)

(16.7)
it's=like lo:t's=of smoke (1.4) °like a cross between° sMOke and cLOUds (1.2) >kind've< continually changing shape
(17.2)
→ I'm thi:nking >that=I< don't feel as relaxed as I ought t- be
(13.7)
→ thinking about my degree resu:lt (.7) >whether I get- a< two one or a two=two:
(25.1)
(>ma:king of<) my ha:nds feel like I ca:n't mo:ve them

The two arrowed lines identify discrete units in the narrative. In the first, the participant refers to her bodily sensations at the time. This seems to be straightforward report of her ongoing experience or state of mind, as opposed to parapsychologically deprived information about the target video clip. In the second, the participant (clearly a student volunteer) reports that she is contemplating her likely final degree classification. Again, it is highly improbable that any of the video clips in the data base would refer to such a specifically personal and immediately relevant issue. Both these issues, then, seem to be personal matters, and likely to have a mundane and non-parapsychological provenance: how she feels right now given that she is meant to be in a relaxed state, everyday concerns and preoccupations of an undergraduate, and so on. These reports are framed by 'I'm thinking' formulations.

Similar issue are at play in the following extract. Throughout the earlier part of this mentation, prior to this sequence, the participant reports a number of discrete images connected to vehicles that fly, specifically, kites, hang gliders, and aeroplanes.

(15) (01-69)

(7.5)
P: °m:::° (.5) °°m:°°= °dark° (.) °flickerin- li:ght in the ba:ck° (2) °candle°
(19.9)
→ °uh::::° thinking- I feel high as=a ki:te- (1.7) °very-=rela*xed °
(9.5)
clou::ds (2.1) °in=a:° (.2) a re:d sky?

In the arrowed turn, the participant reports that she feels 'high as a kite'. Given the predominance in her earlier mentation of objects which fly and sensations of flight, this could be taken as more of that imagery. However, she does two things to mark this as a report of her bodily and/or psychological state at the time. First, is in the previous extract, the participant frames this experience by reporting it as something she is thinking. Subsequently she adds that she is very relaxed, which explicitly indexes a current psychological state, and which thereby clearly disambiguates this reference to 'kite' from the other (more literal) uses throughout the mentation to refer to sensations of flight.

A final use of 'thinking' formulations: in the next extract, the participant is describing imagery connected to the work of a blacksmith, which then develops to the activity of shoeing a horse. These images are unmarked But then the participant identifies a book he has read which was about someone who was a blacksmith. The content of the book - and not the content of the target clip - could be the source of the imagery he has been reporting.

(16) (01-52)

(2.1)
P: an=a::: an=a hammer? (.8) and=an anvil? (2.3) *((tutting sound))*(.2) someone beating=a hamme:r (1.1) an- shoe:ing a ho:rse (4.4) same sort've thi:ng (.9) thinking=of (1) A BOOK that I read thass (.) that's an idea (.)°that I'm thinking of° (.9) abou*t (.) someone who: (2.6) °°was a bla::cksmi:th°°

The report of the book is marked in two ways. The word 'book' is produced at a volume noticeably greater than surrounding talk. In addition, the participant states twice that he is thinking of this book. Participants can thus use cognitive formulations either as explicit doubt implicative markers, or more subtly, to frame and imply the non-parapsychological origin of a particular experience

In may cases, though 'thinking' is generally positioned as an activity in its own right, and participants can draw a distinction between cognitive and perceptual markers.

(12) (01-91)

S: I:'m just seeing like=a ball of fire in front of me >I'm not really thinking< anything (.3) ˙hhhh
(9)

i*t looks like whe:n (1.3) the bomb went off at hiroshima (1.7) °like° all=of=th- (.9) a:ll the smoke going=in=the=ai:r all=the fire=in=the=air

This degree of distinction between 'seeing' and 'thinking' may occur even when the participant's account implies a blurring of these two modalities. In the following extract, for example, the participant initiates a descriptive unit via an explicit report that he is unable to see anything, but then goes on to formulate a report of imagery framed in terms of 'thinking', but which clearly presupposes or implies a vivid visual component.

(14) (01-52)

(14.8)
P: ca:n't really=see anythi:n- I'm (.) >s'rt've< (.5) 'hh I'm thinki::n- (.) about viki:ngs (1.2) an-=uh:: (.2) battles? (1) people cha:rging at each othe:r (1.1) on horse:s? (.) a:n-=ah::: (1.1) a black ho:rse (1.3) with lots=and=lots of hai:r (1.2) charging across the field (2.1) AN-=um::=hhhh lots of tree:s (.) gree:n tree:s (1.3) an- fie:lds (1.9) >s'rt've with< cloudy sky:.

So while the report of 'thinki::n- (.) about viki:ngs (1.2) an-=uh:: (.2) battles?' represents generic categories of people and activities, as the imagery report id developed, it contains stronger and stronger visual components, culmination in a report of the qualities of a specific horse and a description of a setting which clearly presuppose perceptual acuity.

This is further illustrated by the longer sequence of mentation narrative from which the descriptive unit in extract 13 is drawn.

(15) (01-42)

1 (7)
2 P: I see: (1) °loo:ks=*like si-° ah:: STArs >or separate< do:ts
3 (2.9)
4 ((*gulping sound*))
5 (4.7)
6 ((*'lip smacking' sound, as in preparation about to speak*))
7 (1)
8 everythi:ngs:: (.7) too >va:gue<
9 (3.4)
10 t'blAck: (5) >it's=a< big ↑bla:ck obje:ct (3.3) °°°i's:: s:: s:: su: °°° fIlling out=the
11 ↑red (3.2) >see:ms to=be=a: bi:g< black ma:ss
12 (6.6)
13 >>I=do:n't seem=to=ha:ve<< any particula:r (.2) thoughts or feelings? (3.6)
14 >nothing that=I: can pick up o:n<
15 (11.4)
16 >there's=something< at=the left hand s↑ide (2.1) >mo:ving=a↑long< (5.9) u-
17 hAhU (.) u-=HHH (.3) just an amorphou:s (1.5) °mass=of sha:pes°
18 (4.1)

19 >I=thou:ght- I sa:w=a< face?
20 (24.9)
21 still *no >parti:cula:r< thou:ghts
22 (4.8)

At line 2, the participant can be heard to frame the mentation imagery purely in terms of visual perceptual markers, stating that he can ' see: (1) °loo:ks=*like si-° ah:: STArs >or separate< do:ts'. Whilst the next few items across lines 8 to 11 are also framed in terms of visually experienced imagery, despite the lack of any direct perceptual markers indicating sight, at lines 13 to 14 the participant delineates a different level of perceptual experience. In noting the absence of any cognitive and indeed, emotional experience ('>>I=do:n't seem=to=ha:ve<< any particula:r (.2) thoughts or feelings? (3.6) >nothing that=I: can pick up o:n< ') he indicates how he is categorising these varied perceptual experiences in different ways. Indeed, he specifically locates them as separate elements in his overall emotional experiences, since he subsequently goes on to imply visual movement across lines 16 to 17, explicit visual imagery at 12 (albeit qualified by the use of 'thought' in its more everyday use as a doubt implicative marker), before finally stating again that he is experiencing an absence of any specific cognitive imagery.

A sensitivity to the institutional context of the introspective report surfaces in a number of places in this extract. In lines 13 and 21 there are reports that the participant is experiencing no imagery (or no imagery striking enough to report at that moment). As we argued with respect to extract 10, reporting 'nothing to report' indexes its the producer's understanding as to what counts as 'participating appropriately' in this kind of experiment. The claim in line 8 that 'everythi:ngs:: (.7) too >va:gue<' offers an account for the absence of firm or detailed imagery; and as accounts occur when there is a departure from expected or projected actions, further supports the argument that the participant is operating with a normative understanding of his role in the experiment.

A speculative point: the design of the talk across lines 13 and 14 may also display the participant's orientation to the wider context of his introspective account. A culturally available and 'common sense' account of the operation of psychic or parapsychological communication is that it is like a signal which the brain can detect in certain circumstances. Indeed, the development of the ganzfeld methodology, with its emphasis on mild sensory deprivation, was informed by anecdotal and experimental evidence that when brain activity is quietened, weak and otherwise unnoticeable psychic transmissions can be detected. (This understanding of how parapsychological communication might work is also enshrined in the title of one of the key early texts in parapsychology, Upton Sinclair's *Mental Radio* [1930]). The participant's use of the metaphorical phrase 'nothing that=I: can pick up o:n' depicts himself as a potential receiver of signals and thereby seems exquisitely designed to invoke wider publicly available assumptions about the likely mechanisms which underpin extransensorimotor information transfer.

An even more speculative point: by identifying his failure to 'pick up on' signals, the participant provides an implicit account for possible failings in the experimental procedure which, at the same time, preserves the in-principle possibility of

parapsychological communication: his difficulty in identifying imagery is a consequence of *his* inability to detect it, and not because it simply does not exist.

Discussion

In this analysis we have examined 'talk out loud' introspective data on conscious experiences that were collected as part oaf ganzfeld experiment on extrasensory perception. We focused our analysis on two forms of perceptual marker: references to the ostensibly visual and cognitive manner by which experience in consciousness came to the awareness of the participant. The empirical analysis was informed by the assumption in conversation analysis and discursive psychology that utterances are not mere reflections of inner psychological realities, but are formulated with respect to specific range of interpersonal or inferential tasks, We explored the how perceptual markers may be used to address pragmatic and inferential tasks relevant to the institutional setting of a parapsychology experiment. Our findings are three fold

First, perceptual markers can be used to perform a range of activities: they exhibit a constructive property, in that they are constitutive of the nature of the experience for which they stand as (ostensibly neutral) reports. For example, they can be used to an depict the on going live nature of the imagery reported during the mentation narrative, or to amend descriptions so that new information is made available. They are vehicles via which participants can display or disavow personal agency in relation to the appearance of the imagery; and they can be used to mark circumspection about the participants' confidence in the imagery, or indeed, its likely origin, which in turn bears on the parapsychological significance of the imagery being reported.

Second, perceptual markers can be mobilised to allow participants to display their understanding of the requirements of 'appropriate' or 'helpful' behaviour in this kind of setting. Thus reports of 'not seeing anything' are not mere reports of the absence of imagery: they index awareness that, for example, participants should continuously attend to their consciousness, as requested by the experimenter. They can also be used to point to a sophisticated awareness of the broader concerns of the ganzfeld methodology, in that they exhibit sensitivity to the potential parapsychological significance of the absence of imagery.

Finally, there is evidence of the operation of personal metrics by which participants temporally distribute discrete descriptive units through the mentation period. Perceptual sight markers - specifically, reports of 'nothing to see' - may be vehicles by which personal metrics can be maintained at points when a period of silence is otherwise likely to exceed the norm for the individual participant.

In various ways then, the production of the mentation narrative can exhibit the participants' tacit appreciation of the institutional or work-related goals of the setting, common sense or culturally available understandings of the way that parapsychological cognition may work, and the behavioural expectations incumbent upon volunteers in

(para)psychological experiments. In this discussion we explore the implications of these findings for three issues: the goals of the ganzfeld procedure, the concept of demand characteristics, and the broader attempt to study consciousness via introspective reports.

After the mentation review, and then the review of the mentation undertaken by the experimenter on the basis of his or her notes, the participant in a ganzfeld moves to the judging phase. During this, they are shown the target clip and three decoy clips. On the basis of their imagery, reported as the mentation, they are asked to judge which of the four clips is the likely target (this can be done in various ways: for example, identifying one clip and rejecting the other three, ranking the clips in order of probability, and so on). What they actually report during the mentation, then, will in some sense frame and inform their assessment of the clips. The accuracy and completeness of the narrative is thus important, and that's why experimenter and participant review the former's notes of the mentation prior to the judging phase. But the analyses presented here suggest that mentation narratives are not merely neutral verbal expressions of inner mental phenomena that, more or less capture conscious experience in flight. They are a series of discursive acts through which participants pragmatically address institutional, interpersonal and inferential contingencies of the setting. What counts as inside the head, then, is a product of the discursive management of the social outside.

This does not invalidate the parapsychological integrity of the procedure, as these issues will have been relevant to a whole range of ganzfeld experiments conducted since the 1970s, and there are highly suggestive meta analyses which reveal a statistically significant parapsychological effect (Bem and Honorton, 1994; Utts, 1996; Honorton, 1985; Radin, 1997). Even sceptics accept that the consistency of the ganzfeld results points to a robust anomaly, but assume that non-parapsychological explanations will eventually come to light (Hyman, 19xx). What it does mean, though, is that the parapsychologists' job just got that little bit harder, as they may have to recognise and take account of the socially-organised and discursive properties of what were taken hitherto to be essentially private phenomenological events. In experimental parapsychological terms, there is another set of variables to consider when trying to explain when, why and how parapsychological communication may work.

In Orne's (1962) terms, the discursive constitution of conscious imagery is a demand characteristic of the setting, in that what counts as a participant's report of conscious experience orients to interpersonal and institutional properties of the context in and for which it is produced.

The implications of the concept of demand characteristics has not been fully explored or embraced in experimental psychology. This is perhaps because its consequences are potentially far reaching and may radically change how we view experimental procedures. Orne argued that demand characteristics were wholly different to experimenter effects: these could be controlled for by double blind methodologies. But demand characteristics are omni present, as they are borne from the participant's interactions with parameters of the context of the experiment: their interpretation of experimenter's instructions, their understanding of the role of the experimental participant, and so on. And all experiments

will take place in some form of context. Every experimental procedure, then, provides the seeds for the emergence of robust artefacts that are independent of the variables and hypotheses the experiment was designed to explore. Taking account of the omni presence of demand characteristics may significantly challenge accepted interpretations of evidence from experimental research, as well forcing a wholesale re-evaluation of the value of the experiment as a research tool in psychological investigations. Orne's work on demand characteristics focused on roles and cues in experimental procedures. But the analyses presented here point to an extension of the concept to include the discursive and interactional procedures which underpin any social setting, including the formal institutional setting of the experimental laboratory (Wooffitt, 2007).

But these issues are not only relevant to the experimental libratory, but will have implications for those recent attempts to develop methods to obtain more naturalistic or ecologically valid introspective data. For example, 'experience sampling' methodologies, such as Descriptive Experience Sampling (Hurlburt and Heavey, 2006) and Experience Sampling Methodology (Hektner, Schmidt and Csikszentmihalyi, 2006) seek to capture 'snapshots of everyday consciousness': regularities in and dynamic fluctuations of the phenomenological content of everyday life. Both propound the value of collecting situated, contextual and ecologically valid, experiential reports – the reported experiences are embedded in natural contexts, as such experience is reported in response to triggers *in vivo*, in interaction with meaningful life events rather than constructed laboratory scenarios or hypothetical questions. Because of this 'embeddedness', experience sampling methods are supposed to enable the analysis of interactions between experience and environment. Recent experience sampling research has utilised available technology such as personal digital assistants (PDAs) and mobile phones to allow participants to record their conscious experiences, often stimulated by a pager or beeper (see Feldman-Barrett & Barrett, 2001, for a review). Proponents of experience sampling methodologies claim to be able to avoid problems which beset other methods of collecting introspective data, such as retrospective fallacies and biases, theory-led recall, misinformation effects or 'imagination inflation'. They argue that they are able to capture and measure *actual* 'online' experience (Conner, Barrett, Tugade, and Tennen, 2007; Hurlburt and Heavey, 2006).

We believe that the upshot of the analysis presented here is that confidence in this claim may be misplaced, if not a wholly unrealisable ambition. The ganzfeld mentation is a very odd situation: the participant is alone, highly relaxed, and knows that they will not communicate with the overhearing experimenter unless an emergency arises. For thirsty minutes, they have one task: to report out loud whatever comes into their mind. The constraints of the setting and requirements of the task, then, should facilitate the production of descriptions of inner experience that are untainted by interpersonal concerns. But even here, in this most controlled of settings, descriptive reports exhibit the use of socially organised communicative competences through which participants deal with matters arising from the inferred sociality of the setting.

This in because any description of conscious experiences that relies on everyday discursive resources and communicative competences will be produced with respect to

wider institutional or task based requirements, and will address interpersonal or inferential matters tacitly understood by the participant to be pragmatically relevant to his or her participation. It is hard to imagine how the elicitation of verbal reports of consciousness in everyday, real life settings - or indeed in *any context*, via *any method* - can sidestep this range of issues.

Wherever and however we may attempt to capture consciousness - to paraphrase William James, to 'catch the snowflake of experience in the warm hand of observation before it becomes a drop of liquid' (James, 1890), socially organised discursive practices will be inextricably implicated in our understanding of the nature of our phenomena.

Notes

1 Although in the experiment from which the current data was taken, the efficacy of the sender was being evaluated, and hence, unbeknownst to the receiver and on a randomised basis, some trials did and did not employ a sender.

2 With the proviso that they have the right to censor sensitive information if they wish.

3 To demonstrate that the talk reproduced in the extracts is produced in discrete clusters, we include in the timing of the silences that precede and follow the targeted section of mentation.

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Appendix: Transcription symbols

The transcription symbols used here are common to conversation analytic research, and were developed by Gail Jefferson. The following symbols are used in the data.

(.5) The number in brackets indicates a time gap in tenths of a second.

(.) A dot enclosed in a bracket indicates pause in the talk less then two tenths of a second.

·hh A dot before an 'h' indicates speaker in-breath. The more h's, the longer the inbreath.

hh An 'h' indicates an out-breath. The more 'h's the longer the breath.

(( )) A description enclosed in a double bracket indicates a non-verbal activity. For example ((banging sound))

- A dash indicates the sharp cut-off of the prior word or sound.

::: Colons indicate that the speaker has stretched the preceding sound or letter. The more colons the greater the extent of the stretching.

( ) Empty parentheses indicate the presence of an unclear fragment on the tape.

(guess) The words within a single bracket indicate the transcriber's best guess at an unclear fragment.

. A full stop indicates a stopping fall in tone. It does not necessarily indicate the end of a sentence.

Under Underlined fragments indicate speaker emphasis.

↑↓ Pointed arrows indicate a marked falling or rising intonational shift. They are placed immediately before the onset of the shift.

, A comma indicates a continuing intonation.

? A question mark indicates a rising inflection. It does not necessarily indicate a question.

CAPITALS With the exception of proper nouns, capital letters indicate a section of speech noticeably louder than that surrounding it.

° ° Degree signs are used to indicate that the talk they encompass is spoken noticeably quieter than the surrounding talk.

°° °° Double degree signs have been used to indicate whispered or extremely quiet talk.

Thaght A 'gh' indicates that word in which it is placed had a guttural pronunciation.

> < More than' and 'less than' signs indicate that the talk they encompass was produced noticeably quicker than the surrounding talk.

= The 'equals' sign indicates contiguous utterances. For example:

[Square brackets between adjacent lines of concurrent speech

] indicate the onset and end of a spate of overlapping talk.

A more detailed description of these transcription symbols can be found in Atkinson and Heritage (1984: ix-xvi).