Seeing as social action: The interactional accomplishment of sensorial work

William J Gibson
University College London, Institute of Education, UK

Dirk vom Lehn
King's College London, UK

Corresponding Author
William Gibson, University College London, Institute of Education, 20 Bedford Way, London, WC1H 0AL, London, UK.
Email: W.gibson@ucl.ac.uk.
Tel: (0)2076126603

Abstract

In this paper we argue that the growing field of the sociology of the senses has had a strong methodological focus on people's accounts of their sensorial experiences at the expense of studying the practical achievement of sense work as an interactional phenomenon. Recent work has called for more innovative methods in sensorial scholarship and the use of creative approaches to explore the senses. While we applaud this move, this paper shows the importance of a focus on micro-behavioural actions in studying the senses. Drawing on Ethnomethodology and Conversation Analysis, we analyse video recordings of near vision tests in optometry consultations illustrating the highly routinised, but also the embodied and improvised character of the actions through which the vision is made available for scrutiny. We argue that sensorial scholarship has side-lined the study of social context as a lived-order and we demonstrate the importance of treating sensorial actions as routinised, embodied and improvisatory. We agree that using more creative methods would be valuable but caution against relying exclusively on methods that do not sufficiently contextualise the senses as a lived and practical social accomplishment.

Keywords

Sociology of the senses; Ethnomethodology; Conversation analysis; social interaction, vision, optometry

Funding Acknowledgement

The research for this paper was conducted as part of an ESRC funded research project 'Assessing Eye Sight and Ocular Health: The Practical Work of Optometrists' (January 2009 – April 2011): Grant Reference number: RES-062-23-1391

Introduction

Visual studies and sensorial scholarship

Sight is often described as the dominant of the human senses and *looking*/*seeing* as the principal mode of human perception (Ingold, 2000; Vannini et al., 2012). For social interaction, vision is a critical resource for establishing shared meaning, as gaze, gestures, body postures, and the ways that people use material artefacts are all central to achieving social interaction (Cooperrider, 2011; Goodwin, 1986; Heath, 1992; Kendon & Müller, 2001) and are all available to others through acts of *seeing*. The field of visual methods is a cross interdisciplinary set of interests related to the analysis of visual materials which has an established basis in anthropology (Collier and Collier 1986) (and, more generally, in ethnographic methods (Pink 2013)), sociology (D. Harper 2012), human and physical geography (Thornes 2004), tourism studies (Rakić & Chambers, 2011), and library and information sciences (Pollak 2017). Because of this breadth, there is an incredible methodological and theoretical diversity in this area (Pauwels 2012; Scott 2018; Stanczak 2007) that draws on varied forms of data, including 'found' artefacts from the social world, materials produced by research participants (diaries, audio recordings, videos, photographs), as well as researcher produced items (such as video recordings or photos) (Pauwels, 2012). However, one of the unifying features of research in this field is that researchers "prioritize sight and the meaning making of imagery" (Scott 2018: 721) and the functioning of 'visual discourses' (Traue, Blanc, & Cambre 2019).

In the last decade in particular, researchers from across the social sciences began to take an interest in a more holistic approach to sensorial action. This 'sensorial revolution' as

Howes (2006) has termed it, looks at how groupings of people share knowledge about how to see, hear, feel, taste, smell, move in the world; how 'sensorial experiences' are defined 'for' people by particular institutions; how specific types of 'sense work' become enshrined in particular cultural orders and conventions of practice; how sensory categories are themselves cultural constructs that need to be subject to a close sociological analysis. These sorts of topics are at the heart of the recent sociological interest in 'somatic work' (Vannini et al., 2012) – i.e. the role of language, culture, and knowledge in defining our experiences of the senses, in making the world meaningful, recognizable, and 'operable' and as something that we can participate within in producing its social forms.

Within this body of work there is a strong interest in people's experience of sense work: be it the experience of sunlight in Denmark (Hauge, 2015), of 'bitterness' and 'sweetness' in a South American community (Mclachlan, 2011), of eating after gastric bypass surgery (Hillersdal, Christensen, & Holm, 2017), or of weather (Allen-Collinson, 2018), the focus frequently is on individuals' articulation of their sensorial worlds. For instance, Low's (2005; 2013) phenomenological study of people's smell experience looked at how people articulated smells and used them to construct memories, 'sensory meta narratives' and a sense of self. In this work, smell is seen as a discursive resource to the construction of memory that can tell us something about societal norms as well as people's use and experience of these norms.

Conceptually, this focus involves concentrating on the 'cultural meanings' of the senses but not on their role in the *achievement* of social action and the production of social worlds and practices. Methodologically, a common trend is to rely on interviews and

observations for such study. Sensorial researchers are by and large highly reflexive over the nature of interviews as contexts of data construction, and we do not by any means claim there to be a naïve empiricism here. For example, Low (2013) draws attention to this problem in relation to the study of the senses when he notes that gaining a fully 'embodied' understanding of the senses is difficult through interviews because 'sense' is always translated into *talk*.

Indeed, it is the difficulties of articulating sense work that has led scholars to call for greater creativity in the producing knowledge about the senses (Pink 2010; Vannini, Waskul, & Gottschalk, 2012). Emerging from the crisis of representation in social research (Denzin and Lincoln 2005), this creativity involves using new forms of representation and data construction to leverage different kinds of knowledge about the world. Of particular importance for the study of the senses is the ways we can come to terms with issues such as affect (i.e. 'a push, an intensity of feeling' a sensation, a passion, an atmosphere, an urge, a mood, a drive' (Vannini 2015: 8-9), the interrelationship between the senses; the interconnection between sensorial bodies and the spaces and places that they find themselves in; and the relationship between sensorial experience and making meaning of those experiences (Reynolds & Wiseman, 2018).

There is a body of scholarship emerging in the domain of sensory work which has taken up this challenge of producing innovative research and which uses combinations of methods to try to get at some of these issues (Howes et al., 2018; Mason & Davies, 2009; Pink, 2011). However, we have found very few cases that situate this work within a detailed study of how the settings work as *socially organised sets of practices*. To put

it another way, the examination of the interactional practices in which the senses operate is missing. Our paper illustrates the importance of understanding the social organisation of sensorial action as an interactional accomplishment. While we applaud the move to produce innovative scholarship, we suggest that this should not be at the expense of understanding the ways that people produce social contexts as reflexive spaces.

Vision as an interactional accomplishment

In Sociology, the 'visual turn' has a long history with particular links to symbolic interactionism (Becker, 1995; D. Harper, 1998), and has involved a focus on many sociological topics (Brennan & Jay, 1996). Woodiwiss (2005) uses the term 'visuality' to describe the interest in the social conditions, practices, dialogues, and modes that act on how and what we see (Brighenti, 2007), while Styhre (2010b) makes a useful distinction between 'epistemologies of the eye' and 'practices of seeing', where the former refers to theories about the relationship between seeing and knowing, and the latter to theories and empirical work that explores the practical use of vision in everyday life. Theories that deal with epistemologies of the eye argue that 'seeing is always that which is representative of a particular regime of vision which is predominant in a local setting' (Styhre, 2010b: 365). However, these theories typically do not involve a close look at the operations of seeing as an activity or practice.

A different approach to exploring seeing as practice is taken by research that draws on EMCA. For example, Nishikaza (2000) explains that, for EMCA, 'vision belongs within the public and normative order of activity, rather than taking place under an

individual's skin' (ibid.: 106). Furthermore, vision is an 'interactional resource for coordinating actions' (ibid.), a component of communicative action and a key aspect of how people make meaning *for* and *of* each other in social contexts. As Alač (2008: 504) notes in her study of MRI imaging, '[S]eeing is tied to actions that arise out of experiences with the manipulation of objects and everyday practical dealings'. So, sight is a situational accomplishment that intersects with the material and social world of particular settings. The EMCA perspective attempts to unpack the nuances of taken for granted sequential actions that comprise any given action.

There is now a well-established body of work that draws heavily on EMCA to explore empirically the ways that visuality is achieved in social action as a set of working practices (Broth et al., 2014; Heath and Luff, 2000; Heinemann, 2016; Hindmarsh and Heath, 2000). Methodologically, in this tradition the empirical exploration of vision as action relies substantially on video as a means of analysing the ways that people make the social world accountable through vision, and the complexity of resources, such as gesture, gaze, physical objects, and talk, through which 'seeing' is performed, made, and made possible (Ball & Smith, 2012). For instance, Heath and Luff's (1992) study of interaction in London Underground control-rooms looked at how minute glances of fellow colleagues' actions and of information resources such as a fixed display of train service activity were part of the management of collaborative work. In other words, *gazing* and *seeing at a glance* are critical to how work is achieved as a collaborative practice.

Similar studies have been carried out in very diverse settings, including air traffic control rooms (R. Harper & Hughes, 1993), recreational cycling (McIlvenny, 2013),

emergency care (Bjørn & Rødje, 2008), medical surgery (Bezemer et al., 2011), archaeology (Goodwin, 1994) and brain scanning (Alač, 2008). As these examples show, much of this work focuses strongly on interaction in institutions of work and concerns the relationship between visuality and 'epistemic communities' (Styhre, 2010a). Through EMCA, these studies reveal that vision, as a sensorial activity, is experienced, performed and made as part of a context and a set of practical social actions. In the analysis section of this paper we show how clients' vision was made intersubjectively available through body posture, gaze, gesture and other micro-actions. In the concluding section we illustrate why this form of analysis is important to a sociological study of the senses and the role it can play in the 'creative turn' of sensorial scholarship.

Methods and Data

The analysis presented here is drawn from an ESRC funded project that explored the practical work of optometry. The project involved ethnographic observations in optometry clinics in and around the south east of England, and video recording of 62 consultations of between 29 and 59 minutes, recorded in seven different clinics with nine different optometrists. The researchers were not in the consultation room while the recordings were made and only entered the room between consultations to change batteries and tapes or memory cards. While video recording often creates a level of intrusion within any context and can impact on people's behaviour (Heath, Hindmarsh, & Luff, 2010), by extracting ourselves from the research domain while the action was recorded we have reduced the participants' reactivity to the data collection. The project was explained in detail verbally and in written form to all optometrists and clients, and recordings were only made where consent was provided.

The video-data were examined using analytic and methodological resources developed within ethnomethodology (Garfinkel, 1967) and conversation analysis (Sacks, 1992). Over the past two decades, these approaches have increasingly been used to study the organisation of action and interaction (Gibson et al., 2011; Heath et al., 2010; Gibson & vom Lehn, 2018). When using EMCA to analyse video, researchers typically create collections of fragments of interaction where the phenomenon under investigation is present. The fragments are examined with the help of transcripts of talk and bodily action that highlight the sequential orders through which the phenomenon under investigation is produced. For the purposes of this article, we transcribed and analysed 30 near visions tests drawn from our collection. The selection of fragments for transcription was made to include a range of optometrists and optometric practices, including community practices and commercial opticians as well as variation across the age and gender demographics of the participants. Consistent with practices of saturation in this type of approach (Heath, Hindmarsh & Luff, 2010) we stopped transcribing fragments when their analysis did not reveal any new phenomena. In this article we present a small selection of fragments that illustrate the standardised institutional processes and individual variations that occur within near vision tests.

Whilst there is a convention for the transcription of talk (Jefferson, 1984) depicted by Figure 1 there is no such system for the transcription of bodily and material action. For the use of transcripts of vocal and non-vocal action in the article we draw on Heath, Hindmarsh and Luff (2010) in order to characterise the micro actions that are of interest here. We have structured our analysis of these fragments in a way that eschews some of the more technical vocabulary associated with EMCA, and with the use of simplified

transcripts. This is because we aim to make our analysis available to a more general sociological audience, but also because our aim is to illustrate how the attention to micro-action in general (and not just through EMCA) aids the analysis of sensorial action.

Figure 1. Overview of transcription symbols used in our data fragments.

(.)	Untimed micro-pause
[ ]	Square brackets are used to indicate overlapping speech
(0.5)	A number in brackets indicates the time of a pause in tenths of a second.
:	Extended speech sound. Multiple colons indicate further extension
__	Underlined text is used to indicate emphasis
( )	Text in brackets is used to show speech that is difficult to hear for the researcher
><	Text between inward pointing chevrons is noticeably faster than surrounding talk

Analysis

An overview of optometric sight tests

Generally speaking, people attend optometry consultations either because they need replacement glasses or contact lenses, because they have noticed a change in their vision, or because they have been asked by the practice to attend a regular check-up. Whatever the reason for the visit, optometry consultations are structured in a very routinised way and provide what one of the optometrists in our study described as a 'journey through an eye examination'[1]. The consultations begin by taking the client's visual health history after which the optometrist moves on to test the client's sight and to examine the health of their eyes. It is common practice to begin with the distance

[1] This characterisation was given by optometrist Rakhi Shah in describing the aims of the optometric consultation. (Interview as part of ethnographic component of study).

vision test, which determines the client's visual acuity score, a quantitative measure of how clearly the client can see in the distance (vom Lehn et al., 2013). It is conventionally followed by the test of the client's ability to see in the near distance. In contrast to the distance vision test, only rarely does this test *measure* the near visual acuity: its result is not a near visual acuity score but a confirmation that the client 'can see well enough for their everyday needs at their preferred near working distance(s)' (Elliott, 2003). For the purpose of the test clients are asked to read out loud from vision cards that show paragraphs of words or sentences in truncated format and in different sizes. Optometrists sometimes use a tape measure to determine the client's working distance and note it in the client record form.

In this paper we will focus on near vision tests and investigate how the client's ability to see in near distance is determined in interaction between optometrist and client. We focus on these tests because they have not been previously studied through EMCA and because, as we shall show, they have important interactional features relating to the production of vision as an interactionally observable phenomena.

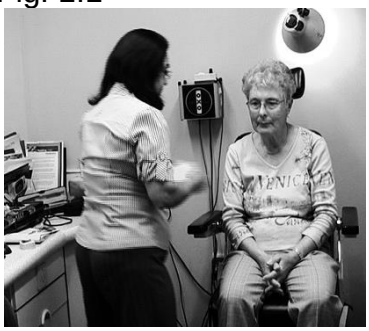
The reading proxy

If clients have not reported particular problems with seeing in the near distance optometrists will conduct the near vision test (NVT) relatively quickly. In the consultations in our data corpus the NVT rarely takes longer than a minute, and often much less; for example, in Fragment 1 the NVT lasts around 10 seconds. The optometrist is able to undertake the NVT this quickly because, based on the client history and the distance vision test, they already have a good idea about the client's ability to see and whether or not they should expect problems in this test.

To begin our analysis, in Fragment 1 the optometrists gives the client the visual acuity card and asks her to read a short line of text from it.

Fragment 1: near vision test by reading

Fig. 1.1



1 O: (And for) rea:ding

2 (2.3)

Fig. 1.2 Fig. 1.3

3 C: sense of breaking new ground by [actual ex]perience

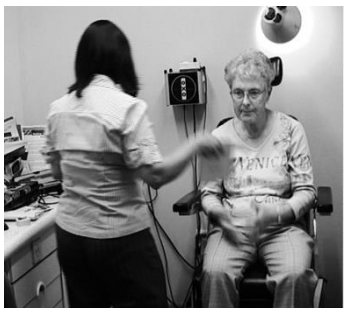


Fig. 1.4 Fig. 1.5

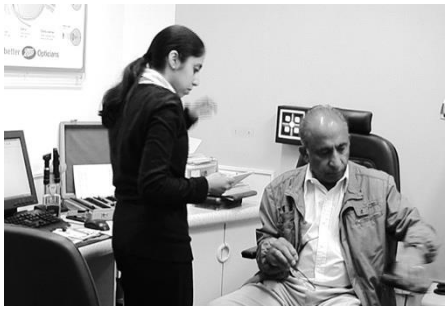
4 O: [excellent]

The test begins with the fashioning of a situation in which the client comes to hold the near vision card and attends to the optometrist's actions. The optometrist has been standing in front of her desk and then turns, saying 'and for reading' (line 1) retrieving the reading card from the desk (Fig. 1.1). With no further instructions, she hands the card to the client (Fig. 1.2). The client takes the card in both hands, looks at it, and the optometrist guides her right forefinger along the line she wants the client to read (Fig. 1.3). Following this, the client immediately begins to read from the card evenly and swiftly without pause or interruption, 'sense of breaking new ground by actual experience' (line 3). By reading the suggested line without displaying any difficulty the client displays or rather *performs* her vision to the optometrist. The optometrist responds to this by saying 'excellent' (line 4) and by taking the card from the client (Fig. 1.4.) as she finishes reading the words 'actual experience' (line 3). The optometrist's strongly evaluative utterance 'excellent', and the way in which she begins to take the card from the client even before she has finished reading suggests that the optometrist treats this very short reading performance as sufficient for the purposes of the test. The *performance* of reading serves as a proxy for the ability to see, making available to the optometrist 'what can be seen' as a fluid action of reading out loud.

The observation that in the near vision test the reading activity is taken as a visual proxy is important as it signals the way that vision is produced as a behavioural act. Fragment 2 shows a further example that begins with the optometrist writing information on the client record.

Fragment 2: a closely directed reading test

Fig. 2.1



1 O: can you hold that where you li[ke to read?

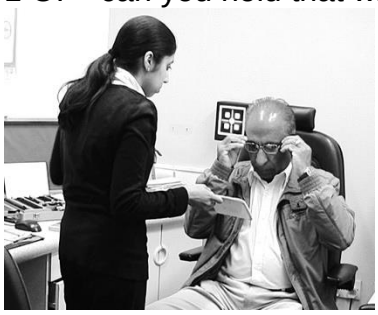


Fig. 2.2

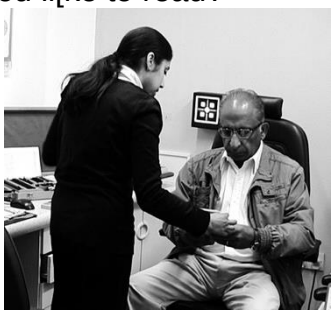


Fig. 2.3

2 C: [yah=

3 O: can you see the second paragraph ther::e?

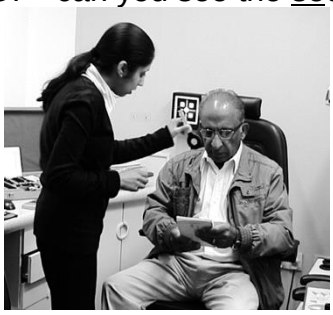


Fig. 2.4

4 C: (0.5) yah I can see:

5 O: can you read it for me:?

Fig. 2.5

6 C: yes sense of breaking new ground by actual

Fig. 2.6   Fig. 2.7

7 experience is st[ill more apparent
8 O: [(good) (.) [well done (.)
9 P: [mmm
9 O: very [good
10 P: [mmm

The optometrist picks up the reading card from the desk and turns to the client (Fig. 2.1), waiting for him to put on his glasses (Fig. 2.2) before placing the card in front of him saying 'can you hold this where you like to read' (Fig. 2.3; line 1). The client takes the card in both hands and then moves his gaze to the card (Fig. 2.2 – 2.4). In setting up the test in this way the optometrist and client establish the context of the text as a 'normal reading activity'. This contrasts with the previous fragment where the 'normalcy' of the reading in the test was not made explicit. In Fragment 1, the optometrist did not provide instructions for the client to adjust her position, and the client reads from the card at the same position that the optometrist presented it.

Continuing with fragment 2, as the client is lowering the card into position the optometrist asks 'can you see the second paragraph ther::e?' (line 4; Fig. 2.1) pointing with her finger to a particular part of the card. There is a brief pause before the client says, 'yah I can see' (line 4; Fig. 2.4). This response is treated as insufficient for the optometrist and she says 'can you read it for me' (line 5). As she brings her request to a close she places an occluder in front of the client's right eye (Fig. 2.5 – 2.6) and the client responds 'yes' (line 6) and begins to read out the suggested paragraph from the

card, vocalising ‘sense of breaking new ground…’ (line 6). As the client begins to read out the word ‘ground’ (line 6) the optometrist moves the occluder from his right to his left eye (Fig. 2.7). The client does not react to this movement and continues reading in an even and monotone voice. When he arrives at the word ‘still’ (line 7) the optometrist removes the occluder and says ‘good’ in overlap with the client’s reading and, once he stops, says ‘well done’ (line 8) and then ‘very good’.

As with fragment 1, in fragment 2 the optometrist treats the reading activity as a visual proxy. The reading of the text from the card in an even and monotone voice is taken as an indication of the client’s ability to see. However, in fragment 2 the optometrist makes explicit that it is the performance of the reading and not the reported ability to read that is important for her assessment. In situations outside of optometric consultations an answer like ‘yes I can see’ to the question ‘can you see the second paragraph there’ would in most cases be sufficient. In our data corpus, however, when this report was given optometrists probed the client’s to display their ability to see by asking them to read out text.

In both fragments the optometrist inspects the client’s reading activity, which in the second case involves impeding the reading by covering the eyes in order to see if this impacted on the performance. This inspection of the reading and altering of the reading conditions shows further that the performance itself is under evaluation and that *how* the client enacts the reading is the critical indicator of vision. However, it also shows an important variation in an otherwise ‘standardised’ test, and that even in this highly institutionalised context substantial differences are present in what clients are asked to do. In fragment 2 the optometrist briefly asks if the client can see a particular paragraph

before occluding first his right and then his left eye to test the near vision acuity of the other eye. This procedure is more closely aligned with the guidelines given in optometry textbooks (Elliott, 2003) than the procedure applied by the optometrist in fragment 1.

Moving between objectivity and subjectivity

After the completion of the distance and near vision tests the optometrist undertakes a series of tests that can be described as examinations of 'subjective refraction' (Elliott, 2003). For the purpose of these tests the optometrist uses either an instrument called phoropter or, as in the fragment discussed here, a trial frame. The trial frame is an instrument that sits like a pair of glasses on the client's nose, and the optometrist feeds in different lenses to progressively alter the state of the client's vision. Fragment 3(a) shows the interaction between an optometrist and a client at the end of subjective refraction. At this stage of the assessment the optometrist is very close to determining the kinds of lenses that the client will need in order to have her vision corrected. Based on previous tests, he has identified which lenses she will need in order to have clear vision in the distance and now begins to test which further lenses are required to allow her to read in the near distance. The optometrist retrieves the near vision card and asks the client if she can see 'that paragraph the:re' (Fig. 3.1, line 1).

Fragment 3(a): testing without verbalised reading

1 O: can you see that paragraph the:re

Fig. 3.1

2 (1.6)

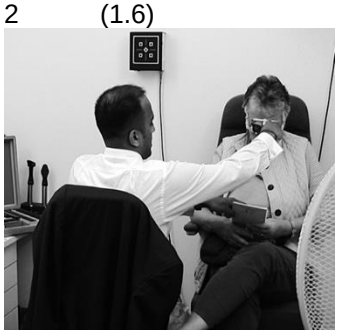


Fig. 3.2

3 C: er::: (.) yes:
4 O: (and there)?

Fig. 3.3

5 (2.1)
6 C: yea but (.) it's: (.) not (.) >it's not as good as<
7 that one

Fig. 3.4

8 O: you can read it though?
9 (2.5)
10 C: yes:: I can read it

Importantly, the optometrist is not soliciting a performance of reading but merely enquiring into the client's ability to *see* the card. As with fragment 2, the optometrist then impedes the client's vision, in this case covering up the client's left eye with the extended fingers of his hand (Fig. 3.2). The client does not adjust the height of the card and holds it in place at the level that it had been passed to her. Having given the card to the client a pause of 1.6 seconds follows that the optometrist himself attends to by moving his gaze between the text he is still pointing to and up to her eyes. He then removes his hand from the card, and the client vocalises an extended 'er:::' and then 'yes' (line 3). The optometrist does not attend to what could be characterised as a display of hesitancy (and therefore projecting uncertainty) and instead moves his right hand to cover the client's other (right) eye and asks if she can still read it '(and there)' (Fig. 3.3, line 4). The pause between his encouragement to read (line 4) and her response (line 6) is more than two seconds. With an abbreviated 'yeah', the client then confirms that she is able to read the text, but this is latched to 'but not as good as that one' (line 6) which she vocalises while moving her left hand up to point to the eye that the optometrist is still covering (Fig. 3.4). Still covering the eye, the optometrist asks 'you can read it though?' (line 8) and keeps his hand in place during another long pause of more than two seconds after which the client utters an extended 'yess:' and then 'can read it' (line 9). The optometrist says 'okay' (line 10) and removes his hand from in front of her eye and begins to swivel his chair around.

This extract contrasts with the previous two as, in this case, the client is not asked to perform the reading, but merely to confirm whether or not she can see. Further, the optometrist does not attend to the client's hesitancy as a display of problems in reading, or to the patient's report that the reading in her left eye is 'not as good' as the other.

Instead, he seeks confirmation that she 'can read it', with no pickup of the comparative 'quality' of the reading that the client is raising. Importantly, the optometrist phrases his interest in terms of an implied category binary (can read/can't read), which contrasts with the client's category distinction (better/worse).

Fragment 3(b) follows directly on the previous one when the optometrist is swivelling his chair around to write the test result in the client record form (Fig. 3.5). As he picks up his pen the optometrist asks '(how now?) comfortable?' (line 11) and the client responds 'yeah comfortable (.) oh yeah' (Fig. 3.6, line 12). The introduction of this new evaluative category 'comfortable' does refer to the 'quality' of the writing beyond 'ability to read' and in her affirmation the patient affiliates with it. As the optometrist does not display an interest in monitoring the client while he solicits the information, it could be that in contrast to 'ability' the optometrist treats 'comfort' as an epistemic issue that does not require his professional oversight.

Fragment 3(b): optometrist disattending to client's actions during self-report

Fig. 3.5 

Fig.3.6 

11 O: How (now?) comfortable?
12 C: yeah comfortable (.) oh yeah

The action continues in Fragment 3(c), where the optometrist asks the client to look at a particular word on the card, 'look at the word sense there' and points to the word on the card. He then asks the client to move the card closer to the eyes until the vision blurs (line 3). The client holds the card in her right hand and moves back and forth in front

of her face while the optometrist unrolls a tape measure and holds it vertically from the client's eyes toward him (Fig. 3.9). The optometrist monitors the client's actions until she says, 'about there' at which point he looks down at where the tape and the card meet (Figure 3.10), lets the tape snap back into its case and swivels in his chair back to the desk (Fig. 3.11) where he writes on the client record form and brings the consultation to a close (Not shown in transcript).

Fragment 3(c): establishing appropriate reading conditions

1 O: look at the word sense there=

Fig.3.7

2 C: =[mhm

3 O: =[bring it as close as possible to you until it blu:rs

(1.3)

Fig. 3.8

Fig. 3.9

C: about the:re

Fig. 3.10

Fig. 3.11

As with the previous part of the test, the optometrist here does not show a concern for the nature of the performance of the action, but with producing a condition (i.e. the patient holding the card at a distance that she considered to result in blurring letters) that he can then objectively (and literally) *measure*. The measure gives him an indication of the distance at which the state of the client's visual experience changes from clear to blurred.

The analysis in this section reveals how optometrists undertake different kinds of test to obtain knowledge about the client's ability to see at a short distance. In the following final section of this paper we discuss the importance of this analysis for the study of vision as a sensorial action.

Discussion

At the beginning of this paper we showed that the 'creative turn' in sensorial scholarship is an attempt to deal with the problem of how to make the senses available for scrutiny. We strongly support the aim of this line of research but suggest that such creativity must be embedded within a detailed understanding of the social contexts of action in which the senses work. In this concluding section we begin by summarising the key sociological issues that arise from our analysis, and then discuss some of the opportunities and limitations that this micro-sociological approach presents for the analysis of the senses.

Routinisation, embodiment and improvisation in sensorial action

Our analysis suggests that optometrists follow a set of highly standardised and routinised test procedures. Tests happen in a particular order, and the general pattern of individual tests are very regular. These tests define *what* is being looked at (the object of vision); *how* it is oriented to by clients (the practice of *doing seeing*); and the verbal/gestural *accounts* that are required by the client. Optometrists enact (but produce no account of) a position of oversight in evaluating these actions of seeing, and they use various mundane and complex technologies to make the client's sight available to them as a professional object of study. Through all of this, the client's 'seeing' becomes a scripted and choreographed act - their account of what they can see is, in a sense, defined for them in that they are given limited accounting options, often in the form of binary oppositions such as 'can read'/'can't read' and 'blurred'/'not-blurred'. We saw in extract 3 that client and optometrist use different categorical descriptions of the vision ('better'/'worse'; 'can see'/'can't see'), and that while these represent critically different epistemic claims, the differences were treated as irrelevant by the optometrist. These practices function as an embodied set of institutionalised practices for producing visual testing; for *regulating* the ways that vision is *achieved* as a measurable and accountable phenomena.

However, we also saw variation within the testing practices. The tests involved moving between 'objective' and 'subjective' assessment, where clients are sometimes subjected to forms of measurement and at other times are asked for their (quite minimal and highly specific) report on their vision. On occasions reading was used as a proxy for vision while on others, clients were asked to simply report that they could read the text. Additionally, there are variations in how the tests were constructed as the two reading

tests (fragments 1 and 2) were different in the instructions given to the client (were to hold the card) and in the optometrist's role (covering or not covering the eyes).

We see through this that the normative institutional practices of testing are contextually configured. This configuration happens in relation to the optometrist's knowledge about the particular client – their expectations about their visual acuity based on previous tests and medical history – but also on the optometrists' own embodied preferences/learnt patterns for doing tests. Across our data set we saw small but important variations in how individual optometrists produced the standardised tests.

All of this has important implications for the study of the senses in any context. Interactionist scholars have long pointed to the routinised nature of social action – the highly repetitive forms characteristic of the most basic types of action (such as greetings) as well as much more complicated interactive conversational types (Sacks, 1992). However, due to individuals' behavioural idiosyncrasies, and because even in the most routinised of contexts social action is ever-changing, there are continual variations in how people conduct their behaviour and adjustments need to be made in order to achieve *'this' 'here-and-now'*. In short, there is an interplay between embodied normativity and the improvised quality of everyday action. If we are to really understand the role of the senses in everyday life, then we must explore the dual embodied/improvised nature of actions in which they figure. Without that, the reflections on peoples' 'understandings' of their senses becomes entirely abstracted from praxis and we miss core aspects of the social dimensions of action.

In summary, there two key issues that we see micro-sociological analysis as helping us to explore. First, the focus on practice helps to show the actions for which the senses are used and illustrates that senses operate in a tangible material/social world that makes certain requirements of people. Micro-sociological analysis helps us to see the intersubjective social/institutional structures within which people operate as sensorial being. Secondly, a key feature of the socially organised character of sense work is how people coordinate their actions with others as an improvised practice. Micro-sociological analysis helps to tease out how this communicative action works, the ways that the emergent properties of action (displayed through features such as talk, body movement and gesture) are used to configure lines of action. In short, the senses are a resource to action, and unless we understand the ways these actions work, we will be missing and mis-characterising their purpose for us as social beings.

Video, the creative turn and the study of the senses

There are two ways in which we see video-based studies in particular as contributing to this agenda. First, video recordings provide us with opportunities to view and examine social situations repeatedly, to stop situation mid-action, and to carefully inspect sequences of behaviour in the way that we have here. Thus, video allows us to unpack the taken-for-granted social organisation of action and becomes a tool that supports the strategy of "anthropological estrangement" (Hammersley & Atkinson, 2007; Maso, 2001) allowing us to make the known unknown and "anthropological destrangement" (ibid.) allowing us to make the unknown known.

Second, video-recordings are useful resources for people to talk to and to elicit thoughts about their experiences (Goldman et al., 2007). While video reflection has been used in sensorial scholarship already (Prosser, 1998, 2013), it is very uncommon to present the analysis to research participants. In our own work, we discussed the data with optometrists, which led to the creation of communication skills resources to inform optometrists' training (Webb & vom Lehn, 2011). Another example is the use "vernacular video analysis" in sports (Tuma, 2012) to refine athletes' body movements, through a detailed reflection on how they see their movements from an external position. In this way, video provides a way of stepping out of the lived experience and analysing body and senses from a different angle. In these two ways, video can help to explore the interconnectedness of sensorial bodies and social spaces and the processes of making meaning around sense actions/experiences.

Using video recordings of naturalistic behaviour as a form of data can be sociologically revealing but there are of course limitations when using it in isolation from other methods. While we can see how the senses are constrained and performed, we can only see this from the very limited point of view of a video camera. As is well recognised in visual methods, the camera itself only captures one version of the scene, and it does not give insight to any of the other nuances such as the sounds, smells, or the special sense of the context (cf. Heath, Hindmarsh, & Luff, 2010). The video-recording is, in this sense, disembodied and, for all its visual richness, a poor resource for understanding the complexity of the lived experience as sensorial action

In our analysis, vision was singled out and separated from other sensorial experiences like haptics, olfaction, hearing and so on. Assuredly, these sanitised spaces with their

harsh overhead lighting and sparse institutional furnishings created many sensorial experiences for clients, none of which were available to us as anlysts. The heavy and often uncomfortable trial frames that the clients are asked to wear; the feeling of the optometrist covering over clients' eyes, touching their skin with fingers and foreign objects like occluders; the proximity of the optometrist and all the complex physio-emotive senses that this may bring - all of this was absent from our description and such issues can only be explored through methods that help participants to try to articulate those things. Given the limitations of interview methods discussed earlier, we strongly agree that creative methods have a critical role to play here.

In conclusion, with this article we have contributed to the growing body of sociological research on the senses by emphasising the importance of understanding sensorial action as performed/enacted in social contexts. The 'subjective' experiences of the senses are framed within *intersubjective* actions that are observable and relevant to others in the interaction order. While there is some research emerging that does explore the senses through this framework (Liberman, 2013; Mondada, 2019), more studies in this vein would radically enhance our sociological understanding of the interactional accomplishment of sensorial work. We argue that it is the intersection of this type of close analysis of action with creative methods that real advances can be made in the sociology of the senses.

References

Alač, M. (2008). "Working with Brain Scans: Digital Images and Gestural Interaction in FMRI Laboratory." *Social Studies of Science* 38 (4), 483–508. https://doi.org/10.1177/0306312708089715.

Allen-Collinson, J.. (2018). "'Weather Work': Embodiment and Weather Learning in a National Outdoor Exercise Programme '." *Qualitative Research in Sport, Exercise and Health* 10 (1), 63–74.

Ball, M., Smith, G. (2012). "Ethnomethodology and the Visual : Practices of Looking , Visualization , and Embodied Action." In Eric M. Margolis and Luc Pauwels (Eds.), *The SAGE Handbook of Visual Research Methods*, (pp.392–413). London & New York: Sage.

Becker, H. S. (1995). "Visual Sociology, Documentary Photography, and Photojournalism: It's (Almost) All a Matter of Context." *Visual Studies* 10 (1–2), 5–14.

Bezemer, J., Murtagh, G., Cope, A., Kress, G., Kneebone, R. (2011). "' Scissors , Please ': The Practical Accomplishment of Surgical Work in the Operating Theater." *Symbolic Interaction* 34 (3), 398–414. https://doi.org/10.1525/si.2011.34.3.398.

Bjørn, P, Rødje, K. (2008). "Triage Drift: A Workplace Study in a Pediatric Emergency Department." *Computer Supported Cooperative Work* 17 (4), 395–419.

Brennan, T., Jay, M. (1996). *Vision in Context: Historical and Contemporary Perspectives on Sight*. Psychology Press.

Brighenti, A. (2007). "Visibility: A Category for the Social Sciences." *Current Sociology* 55 (3), 323–42. https://doi.org/10.1177/0011392107076079.

Broth, M., Laurier, E., Mondada, L. (2014). *Studies of Video Practices: Video at Work*. London: Routledge.

Collier, J., Collier, M. (1986). *Visual Anthropology: Photography as a Research Method*. Albuquerque/NM: UNM Press.

Cooperrider, K. (2011). Review of "Tim Wharton (2009). Pragmatics and Non-Verbal Communication." *Gesture* 11 (1), 81–88. https://doi.org/10.1075/gest.11.1.05coo.

Denzin, N. K., Lincoln, Y. S. (2005). "Introduction: The Discipline and Practice of Qualitative Research." In ibid. (Eds.), *Handbook of Qualitative Research*. New York: Sage.

Elliott, D. B. (2003). *Clinical Procedures in Primary Eye Care*. Amsterdam et al.: Butterworth-Heinemann.

Garfinkel, H. (1967). *Studies in Ethnomethodology*. Cambridge: Polity Press.

Gibson, W., vom Lehn, D. (2018). *Institutions, Interaction and Social Theory*. Macmillan International Higher Education.

Gibson, W. J., Webb, H., vom Lehn, D. (2011). "Re-constituting Social Praxis: An Ethnomethodological Analysis of Video Data in Optometry Consultations." *International Journal of Social Research Methodology* 14 (3), 207–18. https://doi.org/10.1080/13645579.2011.563618.

Goldman, R., Barron, B., Pea, R., Derry, S. (2007). *Video Research in the Learning Sciences*. Los Angeles & London: LEA.

Goodwin, C. (1986). "Gestures as a Resource for the Organization of Mutual Orientation." *Semiotica*, 62, 29–49. https://doi.org/10.1515/semi.1986.62.1-2.29.

Hammersley, M., Atkinson, P. (2007). *Ethnography: Principles in Practice*. 3 edition. London ; New York: Routledge.

Harper, D. (1998). "An Argument for Visual Sociology." In J. Prosser (Ed.), *Image Based Research,* (pp.21–41). London: Falmer Press.

Harper, D. (2012). *Visual Sociology*. London: Routledge.

Harper, R., Hughes, J. (1993). "What a f'ing System?: Send 'em All to the Same Place and Then Expect Us to Stom 'Em Hitting." In Graham Button (Ed.), *Technology and the Working Order: Studies of Work, Interaction and Technology,* (pp.127-144), London: Routledge.

Hauge, B. (2015). "Lives under the Sun: The Sensory Qualities of Daylight in Designing the Everyday." *The Senses and Society* 10 (1), 71–91.

Heath, C. (1992). "Gesture's Discreet Tasks: Multiple Relevancies in Visual Conduct and in the Contextualisation of Language." In Peter Auer and Aldo DiLuzio (Eds.), *The Contextualisation of Language,* (pp.101–28). Amsterdam: John Benjamins Publishing Company.

Heath, C., Hindmarsh, J., Luff, P. (2010). *Video in Qualitative Research*. London: Sage.

Heath, C., Luff, P. (1992). "Collaboration and Control. Crisis Management and Multimedia Technology in London Underground Line Control Rooms." *Computer Supported Cooperative Work (CSCW). The Journal of Collaborative Computing* 1 (1–2), 69–94.

———. 2000. *Technology in Action*. Cambridge: Cambridge University Press.

Heinemann, T. (2016). "From 'Looking' to 'Seeing': Indexing Delayed Intelligibility of an Object with the Danish Change-of-State Token N↑å↓:" *Journal of Pragmatics* 104 (October), 108–32. https://doi.org/10.1016/j.pragma.2016.04.003.

Hillersdal, L., Christensen, B. J., Holm, L. (2017). "Changing Tastes: Learning Hunger and Fullness after Gastric Bypass Surgery." *Sociology of Health and Illness* 39 (3), 474–87. https://doi.org/10.1111/1467-9566.12504.

Hindmarsh, J., Heath, C. (2000). "Sharing the Tools of the Trade: The Interactional Constitution of Workplace Objects." *Journal of Contemporary Ethnography* 29 (5), 523–62.

Howes, D. 2006. "Charting the Sensorial Revolution." *The Senses and Society,* 1 (1), 113–28.

Howes, D., Clarke, E., Macpherson, F., Best, B., Cox, R. (2018). "Sensing Art and Artifacts: Explorations in Sensory Museology", *The Senses and Society, 13 (3), 317-334.* https://doi.org/10.1080/17458927.2018.1516024.

Ingold, T. (2000). *The Perception of the Environment*. London & New York: Routledge.

Jefferson, G. (1984). "Transcript Notation." In J. Maxwell Atkinson and John Heritage (Eds.), *Structures of Social Action,* edited by J. Maxwell Atkinson and John Heritage, (pp.ix–xvi). Cambridge: Cambridge University Press.

Kendon, A., Müller, C. (2001). "Introducing Gesture." *Gesture* 1 (1): 1–7. https://doi.org/10.1075/gest.1.1.01ken.

Liberman, K. (2013). "The Phenomenology of Coffee Tasting: Lessons in Practical Objectivity." In ibid. (Ed.) *More Studies in Ethnomethodology*, (pp.215–262). New York: SUNY.

Low, K. E. Y. (2005). "Ruminations on Smell as a Sociocultural Phenomenon." *Current Sociology* 53 (3), 397–417. https://doi.org/10.1177/0011392105051333.

Low, K. E. Y. (2013). "Olfactive Frames of Remembering: Theorizing Self, Senses and Society." *Sociological Review* 61 (4), 688–708. https://doi.org/10.1111/1467-954X.12078.

Maso, I. (2001). "Phenomenology and Ethnography." In Paul Atkinson, Amanda Coffey, Sara Delamont, John Lofland, and Lyn Lofland (Eds.), *Handbook of Ethnography*, (pp.136 - 144). London: Sage.

Mason, J, Davies, K. (2009). "Coming to Our Senses? A Critical Approach to Sensory Methodology." *Qualitative Research* 9 (5): 587–603. https://doi.org/10.1177/1468794109343628.

McIlvenny, P. (2013). "The Joy of Biking Together: Sharing Everyday Experiences of Vélomobility." *Mobilities*, 10 (1), 1–28. https://doi.org/10.1080/17450101.2013.844950.

Mclachlan, A. L. (2011). "Bittersweet: The Moral Economy of Taste in an Amazonian Society." *The Senses and Society,* 6 (2), 156–76.

Mondada, L. (2019/in press). "Contemporary Issues in Conversation Analysis: Embodiment and Materiality, Multimodality and Multisensoriality in Social Interaction." *Journal of Pragmatics*, February. https://doi.org/10.1016/j.pragma.2019.01.016.

Nishizaka, A. (2000). "Seeing What One Sees: Perception, Emotion, and Activity." *Mind, Culture, and Activity,* 7 (1): 105–23. https://doi.org/10.1207/S15327884MCA0701&2_07.

Pauwels, L. (2012). "An Integrated Conceptual Framework for Visual Social Research." In Eric M. Margolis and Luc Pauwels (Eds.), *The SAGE Handbook of Visual Research Methods*, (pp.3–23). London & New York: Sage.

Pink, S. (2010). "The Future of Sensory Anthropology/the Anthropology of the Senses." *Social Anthropology* 18 (3), 331–33. https://doi.org/10.1111/j.1469-8676.2010.00119_1.x.

Prink, S. (2011). "Multimodality, Multisensoriality and Ethnographic Knowing: Social Semiotics and the Phenomenology of Perception." *Qualitative Research,* 11 (1), 261–276.

Pink, S. (2013). *Doing Visual Ethnography*. SAGE.

Pollak, A. (2017). "Scholarship @ Western Visual Research in LIS : Complementary and Alternative Methods Visual Research in LIS : Complementary and Alternative Methods." *Library and Information Sciences,* 39 (2), 98-106.

Prosser, J. D. (1998). *Image-Based Research. A Sourcebook for Qualitative Researchers.* London: Farmer Press.

Prosser, J. D. (2013). "Visual Methodology. Toward a More Seeing Research." In Norman K. Denzin and Yvonna S. Lincoln (Eds.), *Collecting and Interpreting Qualitative Materials*, (pp.177–212). London et al.: Sage.

Rakić, T., Chambers, D. (2011). *An Introduction to Visual Research Methods in Tourism*. London: Routledge.

Reynolds, D., Wiseman, B. (2018). “Introduction : Methods of Aesthetic Enquiry across Disciplines.” *The Senses and Society,* 13 (3), 261–63. https://doi.org/10.1080/17458927.2018.1538034.

Sacks, H. (1992). *Lectures on Conversation*. (2 volumes). Oxford: Blackwell Publishing.

Scott, L-J. van den. (2018). “Visual Methods in Ethnography.” *Journal of Contemporary* Ethnography, 47 (6), 719-728. https://doi.org/10.1177/0891241618806972.

Stanczak, G. C. (2007). *Visual Research Methods: Image, Society, and Representation*. Sage Publications.

Styhre, A. (2010). “Knowledge Work and Practices of Seeing: Epistemologies of the Eye, Gaze, and Professional Vision.” *Culture and Organization,* 16 (4), 361–76. https://doi.org/10.1080/14759551.2010.519931.

Thornes, J. E. (2004). “The Visual Turn and Geography (Response to Rose 2003 Intervention).” *Antipode* 36 (5), 787–94.

Traue, B., Blanc, M. Cambre, C. (2019). “Visibilities and Visual Discourses: Rethinking the Social With the Image.” *Qualitative Inquiry,* 25 (4), 327–37. https://doi.org/10.1177/1077800418792946.

Tuma, R. (2012). “The (Re) Construction of Human Conduct:" Vernacular Video Analysis"." *Qualitative Sociology Review* 8 (2).

Vannini, P. (2015). *Non-Representational Methodologies: Re-Envisioning Research*. New York: Routledge.

Vannini, P., Waskul, D., Gottschalk, S. (2012). *The Senses in Self, Society, and Culture: A Sociology of the Senses*. New York: Routledge.

vom Lehn, D., Webb, H., Heath, C., Gibson, W. (2013). “Assessing Distance Vision as Interactional Achievement: A Study of Commensuration in Action.”, *Soziale Welt,* 64 (1–2), 115–136.

Webb, H., vom Lehn, D. (2011). “Eye Contact and Gaze in Optometry Consultations.” *Optometry Today!,* 51: 16–18.

Woodiwiss, A. (2005). *The Visual in Social Theory*. London: Bloomsbury Publishing.