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A Sociomaterial Account of Partnership, Signatures and Accountability in Practice

Abstract: Professional work is often heralded as undergoing radical transformation. This paper focuses on partnership between health professionals and families as a specific instance of changes aimed at delivering shared responsibility and joint knowledge work. An ethnographic study of a residential child and family health services provides the empirical basis for a detailed examination of what is signed, by whom, and with what effects. I show how signing and signatures provide fertile starting points for sociomaterial analysis, a rich empirical reference point for what Nicolini calls “zooming in” on particular instances, and “zooming out” to understand their connections to other practices. Schatzki’s practice theory is used as a theoretical basis, drawing also on Kemmis’ notions of practice architectures and ecologies of practices to elaborate such connections. I trace how acts of signing and signatures as artefacts are produced through and reflect partnership, indeed pointing to significant changes in professional work. However I also show that wider ecologies of practices present architectures that challenge diffuse accountability and shared epistemic work.

Keywords: practice theory, sociomaterial, signature, partnership, accountability

This paper takes signatures and practices of signing as a point of departure for understanding new accountabilities that are emerging through shifting forms of knowledge, practice and responsibility in child and family health practices. I follow Schatzki’s (2003) site ontology, arguing that these only and always come into being in specific instances through practices bundled with material arrangements. My focus is on coproduction, and specifically partnership between professionals and families with young children. I draw on an ethnographic study of a residential child and family health service in Sydney (Australia), and on linked empirical material generated through focus groups held with researchers and practitioners in the UK and Sweden (see Hopwood 2013a,b,c; Hopwood & Clerke, 2012; Clerke & Hopwood, 2014).

It is important to explain and justify a focus of signatures and signing. Signatures and signing occur commonly in professional practices, yet they have received scant attention in the literature (Gherardi & Landri, 2012 is an exception; see also the related paper in special issue). Acts of signing can have significant consequences, and signatures can be powerful artefacts with profound implications, particularly within regimes of accountability and responsibility. Not only are signatures commonplace, important, and overlooked, they also constitute a rich reference point in empirical analysis. Nicolini (2009, 2012) argues that to understand practices we need to both “zoom in” and focus on particular instances at a local level, and “zoom out” to understand ways that practices are always inevitably

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shaped by other practices with which they “hang together” (Schatzki 1996, 2002). Any signature or act of signing can be analysed both in terms of its specific actions and materialities, but also as a point of reference through which connections can be made to multiple chains of actions, connections with other times, places, artefacts, and systemic features of regulation and accountability. Signatures and signing can be understood both as specific enactments or artefacts, and as points of access to much wider connections. I explore these both through Schatzki’s concepts, and Kemmis’ ideas of practice architectures and ecologies. The theoretical underpinnings which make signatures interesting and significant in these ways are explained below.

Coproduction highlights particular kinds of relationships between professionals and service users, such that practice is not done *by* professionals *on* or *for* others, but is jointly produced. Arguably professional practices are always coproduced in some way. However, the concept of coproduction is increasingly used to signal a growing international trend in the reframing of professional practices, indicating a change in the emphasis, depth, or role of relationships (Dunston, Lee, Boud, Brodie & Chiarella, 2009). In this sense, the idea connects directly with the key themes of this special issue: new forms of knowledge, regulatory regimes, and economic-political pressures that are transforming professional work. I will now explain how partnership can be understood as a particular form of coproduction, and will outline its specific instantiation in the Family Partnership Model—a movement in practice development that has been widely implemented in the UK, Europe, and Australasia, and which has parallels in many other countries.

Coproduction may refer to diverse forms of service user involvement—in service (re)design (through voicing feedback or more active forms), governance, and volunteerism. Partnership, at least within a health context, is drawn attention to coproduction in the sense of service users being active in shaping the course and conduct of their care as it happens, and in a highly personal and personalised manner. In the context of services for families with children (from pre-birth to late adolescence), numerous models of partnership have emerged, offering distinctive rubrics for implementing the idea in practice. These include the Nurse-Family Partnerships (Olds, 2006), and Family Systems Nursing (Wright & Leahey, 2009), and the Family Partnership Model.

The Family Partnership Model (FPM) was developed at the Centre for Child and Parent Support in London (Davis, Day & Bidmead, 2002; Davis & Day 2010). It was motivated by strong evidence suggesting that parents are unlikely to act on guidance from professionals if they do not feel respected, listened to, or able to negotiate (Davis & Fallowfield, 1991). FPM seeks to enhance partnership practices through a suite of training programs offered to clinicians. These focus on helping professionals operationalize the idea of partnership through a specific framework, and then develop skills and qualities that are deemed crucial in implementing partnership. FPM links key principles of mutual respect, shared decision making, strengths-based approaches, and sensitivity to family context and parents’ values, with a staged process of helping that begins with exploring a problem and proceeds by identifying goals, planning and implementing strategies, and reviewing progress. Skills of active listening, demonstrating empathy, negotiation, goal setting, and using expertise to challenge parents when appropriate are all highlighted.

FPM connects clearly with new modes of knowledge production and shared epistemic work that are changing the nature and conduct of professional practice (Jensen, Lahn & Nerland, 2012). It explicitly elevates the status of parents’ (and where relevant children’s) views, values, and constructs that should be taken into account in the helping process. Professional expertise is recognised, but is not deemed the only source of relevant knowledge. Indeed the early stages of exploring a problem aim to bring to the surface parents’ understandings of the difficulties they are facing, rather than imposing professionals’ *a priori* knowledge on a situa-

tion. Furthermore new modes of knowledge are produced through the helping process. The solution is not handed down by professionals, but rather emerges through cyclical implementation and review of strategies that reflect negotiations between professionals and families.

The implementation of FPM also reflects economic-political pressures that are reshaping professional practices. While its development was influenced by a desire to secure better outcomes for families, its appeal to policy-makers in part lies in its alignment with other drivers for change. Demands from service users to have a greater say, as well as questioning the lack of cultural sensitivity in expert-led approaches, create political pressures to which partnership appears to offer a solution. Pressures also arise through concerns about families who disengage from services, due to lack of trust, feeling inadequately listened to, or frustration with lack of progress. FPM aims to ensure interactions with health professionals are perceived and experienced as secure, consultative, and effective. Evidence suggesting improved outcomes associated with FPM (see Davis & Meltzer, 2007) also appeals, as effective early intervention can reduce dependency on services by creating confidence and developing the capacity for parents to anticipate and solve problems more independently.

I would also argue that FPM and other partnership-based agendas contribute to new regulatory regimes. The FPM articulates an aspiration for a particular kind of professional practice where accountability and responsibility are radically shifted. Professionals are no longer (only) accountable to themselves, or their governing bodies, nor are they solely responsible for practice but jointly negotiate and produce practice with clients or service users. Partnership and accountability fuse in complex ways. There may be competing demands to care or control, a blurring of professional roles and authority, and a change in decision making power, all of which have implications for how practices are accounted for and regulated, and how professionals are held accountable (Needham, 2006, 2007). Professionals often remain ultimately responsible for ensuring competence and meeting standards, yet the idea of partnership resists static pre-determined measures of performance or rigid articulations of best practice: while effectiveness is never dismissed, partnership implies a change in ownership of what effectiveness might mean and how it might be measured (Needham, 2007). Traces of partnership-infused regimes of regulation and accountability were evident in the service I studied, for example in the way that evaluation was sought from parents asking for assessments of satisfaction as well as levels of agreement with statements such as “was involved in planning my child’s care,” or “staff helped me to work towards my goals during my stay.” The use of a “Client Rights and Responsibilities Statement” speaks volumes to this point: the use of the word client implies a different relationship (the word “patient” is strongly policed out of use), while rights and responsibilities implicitly challenge a notion of a passive service user.

So, it is clear that partnership as a particular form of coproduction, and FPM as a specific articulation of partnership, trouble the architecture of professional cultures and expertise. As studies of professionals’ experiences of working in partnership found, it can be difficult to go beyond “being nice” when the imperative is to avoid being a bossy expert (Fowler et al., 2012; Rossiter, Fowler, Hopwood, Lee & Dunston, 2011; Hopwood, Fowler, Lee, Rossiter & Bigsby, 2013). This speaks directly to questions of knowledge, expertise, epistemic labour, political pressures, regulation and accountability. Fenwick (2012), in turn, troubles the notion of coproduction in several ways. This paper contributes to addressing two of these. First, the lack of specific empirical analyses of coproduction. There is no shortage of policy rhetoric articulating universal, positive visions. And in the context of FPM, there is also significant empirical evidence measuring outcomes associated with implementation of the model (see Davis & Meltzer, 2007). But there is scant description and questioning of what actually happens in practice, how coproduction

is accomplished, and what kind of accomplishment it is. This links to Fenwick's (2012) second point, the over-emphasis on coproduction in dialogic terms rather than attending to material dimensions. This is somewhat reflected in the FPM literature, which emphasises communicative skills, although it does recognise their performance as bodily.

Through a sociomaterial approach, drawing on Schatzki and Kemmis, I will attend to partnership as a bodily and material, as well as interactive and social accomplishment. I do so by taking signatures as tracer objects, and acts of signing as points of departure in tracing actions. I show how doing so enables us to explore how partnership connects with the wider ecology within which professional practices are being reshaped through bodily movements that leave a trace of ink on a page. Signing and signatures constitute a site through and at which accountability, responsibility and partnership are enacted into being.

Theoretical approach

In this section I will outline key aspects of the sociomaterial approach that underpins this paper. I will also illustrate key points with reference to concepts of signatures and signing, in preparation for the discussion which follow, and to further demonstrate how signatures offer a useful empirical focus that enables both zooming in to particular enactments, and zooming out to understand their connections to other practices (Nicolini, 2009, 2012).

Consistent with this special issue, my research followed a sociomaterial approach (Fenwick, Edwards & Sawchuk, 2011), the hallmarks of which are constituted through paying explicit attention to the material world (matter matters as matter), and through analyses of the social world as it is enacted into being, i.e., of social practices. Actor-network theory (ANT), activity theory, complexity theory, and to a certain extent contemporary spatial theories associated with geography have become prominent in empirical sociomaterial studies. Contemporary practice theory and philosophy are emerging as a distinctive companion to these (see Green, 2009; Hager, Lee & Reich, 2012), particularly as expressed in the work of Schatzki (1996, 2001, 2002, 2003, 2010a, 2010b, 2012), but also Kemmis (2009; Kemmis, Edwards-Groves, Wilkinson & Hardy, 2012).

Schatzki's framework has been articulated over 25 years and can only be sketched here. His project began as a move to resurrect practices as a primary unit of social life, and therefore analysis of questions pertaining to human coexistence (of which questions of professional practices and accountability are examples). Following this, Schatzki (2003) developed more explicit and extensive descriptions of his *site ontology*, the idea that all social phenomena fundamentally comprise not only doings and sayings, but the material arrangements with which they are bundled. The site is a sociomaterial accomplishment. It is through the notion of the site that Schatzki seeks to avoid individualist or societarian orientations through which agency / structure debates have proved so intractable. In Schatzki actions that compose practices are performed by individuals (thus individual doings and sayings uphold practices), but their organisation and prefiguring is not an individual matter, but rather one of social practices. Thus when an individual signs a document, this action is understood as both (i) upholding the practice of signing through the performance of particular doings that constitute an(other) instantiation of signing; and (ii) prefigured by the wider practices of signing, which govern how signing is done, how actions and artefacts relate in the process, why signatures are needed, and why they are consequential.

Schatzki's (2002) book is presented with the explicit purpose of correcting what he saw as an underplaying of materiality in his earlier work (see Schatzki, 2010a for a more recent review of these issues). Relationships between practices and ma-

terial arrangements (humans, artefacts, organisms and things) are elaborated as *bundles*: practices respond and react to material states of affairs or changes in them, they may be attuned to material conditions, seek to change them, produce new objects or arrangements, be linked through common objects, settings, or causal chains, and overall are fundamentally and inescapably linked because all doings and sayings that comprise practices are performed bodily (bodies being recognised as material entities not just a product of discourse). Bundles between practices and materiality are central to signatures and signing. The act of signing is a material intervention in the world—usually rendering ink on paper. Its practical significance and import are tied to the signed name alone, but to text surrounding the signature and the actions which come before and after it. Signatures lead to changes in material affairs, and can equally be prompted or shaped by them. This bundling of practices and materiality is why I refer to both signatures and signing together: there can not be a signature without an action of signing, and vice versa.

Importantly, while the physical composition of things has significance for practices, this significance is not fixed to that composition, but is governed by *practical intelligibility*. This refers to how physical properties can be bundled with doings and sayings in different ways: a chair can be an object for sitting if someone sits on it, but also can be a kind of step if someone stands on it to reach a high shelf, or can be a clothes hanger if someone hangs a coat on it to dry. The practical and often powerful effect of a signature is not accomplished through the act of signing or the trace of ink alone: we must also attend to how the act and artefact are attended to, understood, and shape future actions. These require us to “zoom out” (Nicolini, 2009, 2012) and frame the practical intelligibility of signatures and acts of signing within wider textures of practices.

The material world *prefigures* practices in the sense that it contributes to the array of factors (others include social norms, forms of understanding, and intentions) that influence what it makes sense for people to do, what is presented as more or less easy, achievable, effective, efficient, and so on. An act of signing may be prefigured as a sensible, effective, efficient, or normal thing to do in a particular circumstance. The associated effects of the signature are again not fixed or predetermined, but neither are they evenly spread out among infinite possibilities: connections between signing and other practices favour some reactions, responses and consequences over others. This “favouring” may include norms, regularities, patterns of sense-making, material facilitation, and so on.

Schatzki (2002) defends what he terms a residual humanism. By this he means that he does not join ANT and other post-humanist approaches in asserting generalised symmetry, but his view is consistent with the rejection of the assumption that agency rests exclusively with humans. He positions intentionality as a key feature in his framework, linked to the concept of practical intelligibility. That materiality has a bearing on social life is not in question, but, according to Schatzki, how it does so is not independent of the ends towards which and the conditions from which people act. Thus we must approach an analysis of signatures and signing without ignoring the teleological features of the practices of which they are part and with which they hang together.

Kemmis (2009; Kemmis et al., 2012) closely follows Schatzki, although adding relatings to Schatzki’s doings and sayings. This is an aesthetic difference rather than an ontological one, expressing the view that all practices necessarily comprise physical, discursive and social dimensions that cannot stand in for one another. Kemmis and colleagues use the term *practice architectures* to refer to cultural-discursive, material-economic and socio-political dimensions that at once shape practices through wider connections, and are enacted and upheld through specific sites.

The second element of Kemmis’ framework that is most pertinent to this paper is his concept of *ecologies of practices* (Kemmis et al., 2012). This refers to the

idea that practices are not only interconnected, but that these connections shape responsive adaptations and evolutions, just as living things co-exist and respond to each other. Just as ecosystems can be identified at a large scale, yet are only present through specific, local forms of co-existence and adaptation, so the same can be said of practices. Here Kemmis returns to the idea of the site: practices arise in relation to one another in a particular site, and their interdependence is to a large-extent site-specific. In these terms a new regime of accountability, or training-based intervention such as the FPM, does not shape practices as some kind of omnipresent external entity. Rather it forms part of the ecology of practices and comes into being always and only in specific sites.

I find the concepts of architectures and ecologies useful in achieving what Nicolini (2009, 2012) refers to as “zooming out” —understanding specific events as instantiations and parts of wider sociomaterial assemblages.

The study

I adopted an ethnographic approach, focusing on practices in one child and family health service. This was the Residential Unit (RU) of Karitane in Carramar, Sydney. Karitane provides a range of services for families with young children, and the RU serves families across the state of New South Wales, helping parents address issues relating to sleeping, settling, breastfeeding, solid food intake, toddler tantrums, and so on. Up to 10 families become resident each week, arriving on Mondays for a five-day stay. At the time of study the Unit was staffed by health professionals with qualifications in nursing, psychology, social work, childcare, psychiatry, and paediatrics, as well as administrative, education, and hotel services support staff. I visited the Unit 60 times over a 9-month period in 2011, covering all hours of service from Monday morning to Friday afternoon several times, including nights. Most observations involved shadowing members of staff, and through this I was able to follow practices relating to 58 different families. In addition to field notes from each visit, I collected 119 documents and took 338 photographs (see Hopwood, 2013a, b, c, in press; Hopwood & Clerke, 2012; Hopwood et al., 2013; Clerke & Hopwood, 2014).

Analysis followed Srivastava and Hopwood’s (2009) iterative framework, which asks: (1) What are the data telling me? What do I want to know? And (3) What is the relationship between (1) and (2)? The first of several phases involved re-reading all data visit-by-visit, identifying more organic themes through units of analysis derived from the site itself (such as routine activities like handover or settling, and key spaces such as the playroom). The second phase moved to a middle space between data-led and theoretically purposive, exploring how key practice theoretical concepts can be used to make sense of the data. The third was the most focused, oriented directly towards the issues presented in this paper. It involved identifying all instances of signatures and signing, interpreting them through the theoretical framework (phase two), and situating them within the broader contexts understood through phase one. It was in this third phase that signatures were operationalized as tracer objects. Each instance was examined in terms of what was involved in the production of the signature and the act of signing as sociomaterial accomplishments, what the signature/signing signified in terms of responsibility and accountability, and what effects it had in practice. Signatures were not coded, categories or thematised; instead the discussion below is organised by different practices of which signatures are part, in an approach that teases out where we arrive if we take signatures as a point of departure in a sociomaterial analysis.

Signing and signatures

The coupling of signing and signatures reflects the site ontology discussed above. There is no signature (artefact) with signing (doing). Once signed, the signature is only meaningful as it becomes practically intelligible. Signatures and signing always occur together at what Schatzki calls the site.

I will “zoom in” on a range of signatures and signing practices, conveying the different assemblages or bundles of practices and material arrangements associated with each. Through this, I weave a commentary that “zooms out,” linking the different acts and products of signing to questions of partnership, knowledge, responsibility and accountability. I reflect on what the acts of signing and signatures do. I consider practices of admission and progress review, tracing partnership and diffuse forms of epistemic work and responsibility. However I also discuss medical records as a site at which more conventional, individual- and professional-focused lines of accountability remain, but wherein a more expansive notion of the signature is in evidence. In two further examples, focused on referral forms and expressed breast milk, I explore ideas of prefiguration and emergence, suggesting a third notion of restoration. I conclude by reframing the discussion with reference to Kemmis’ ideas of ecologies of practices and practice architectures.

Signing and signatures in admission

Soon after parents arrive, an admission interview is conducted. Nurses ask questions prompted by the admission paperwork which they begin to fill out by hand using a pen with black ink. The bottom of each page is signed by the admitting nurse, and usually this routine is performed at the end of the interview. A crucial part of the admission process involves exploring the challenges facing parents, identifying their priorities, and then articulating goals. Here we can clearly see the early steps of the staged helping process of the FPM. While the nurse usually writes the goals out herself, one parent (usually the mother) is asked to sign off on these before the nurse adds her own signature.

There is a formal requirement for nurses to sign the bottom of each page in the admission documentation, as it becomes part of a legal medical record. Clear lines of accountability can be traced here, wherein the signature is a material artefact signifying the embodied presence of a particular nurse and linking that presence to the written information above. This function determines the use of black ink. However, it is possible to trace ways in which the idea of partnership prefigures the admission process and acts of signing within it. Admission documentation is designed with partnership in mind, and the interview is conducted in a way so as to explore parents’ constructs, preferences, and priorities. Although it has elements that resemble taking a medical history, it is much more negotiated and future-oriented than that. Thus the forms of knowledge that are documented and signed off by the nurse in fact reflect origins in both professional expertise and parents’ understandings. The epistemic labour of admission is built on mutual expertise being recognised, acted upon, and recorded.

This material record of multiple forms of knowledge is then tied even more explicitly to partnership in the joint signing off of goals. Here the act of signing by the parent involves a physical handing over of paperwork and pen to the parent, whose embodied presence now leaves a trace on the paper (further to her completion of screening surveys). The paired signatures represent a concluded discussion and specified course of action, having the effect of reducing uncertainty associated with how to proceed when partnership requires practices to follow parents’ lead to an extent. The signatures are also a means to announce and record that partnership has been accomplished in admission and goal setting. They denote shared or diffused responsibility, and provide a trace that speaks to forms of accountability that focus on relational work with parents.

Review of progress and changes to goals

As the week progresses, at least once in each 24-hour cycle, nurses have a discussion with parents in which they take stock of how things have gone, and consider whether parents may wish to revise their goals. This might involve changing the priority or articulating new goals, or changing the approach taken in attempting to meet existing ones. Alternatively, the discussion might establish that no changes to goals or the approach are desired. Whatever the case, a material record of this is produced and signed off by a parent and then a nurse. Again these paired signatures are part of both the enactment of partnership and the establishment of material forms that account for partnership. As one nurse explained to a mother, the signature is an acknowledgement that “we did it together.”

Even when no changes are made, the joint signatures testify that a review process was undertaken, and that responsibility for maintaining the status quo is shared. Where the review leads to a change in the course of action, the decision for this change is recorded as a joint one. Karitane thus makes itself accountable in light of public pressures for parental involvement in determining the course of health practices that affect them—pressures which are re-articulated through the FPM’s notions of shared decision making. This can also be expressed again in terms of epistemic labour being divided among stakeholders, rather than held within the exclusive purview of the professional expert. Once again, zooming in on signatures in particular contexts enables us then to zoom out and understand wider connections that shape actions and are simultaneously upheld through specific enactments.

The signatures in the initial goal setting of admission reflect quite stable bundles of practices and material arrangements. They nearly always assemble in parents’ bedrooms, with familiar arrangements of bodies in seated postures on chairs and beds. However the review of progress signatures are produced through acts of signing that are much more fluid in their performance and bundling with the material world. They are not linked with the temporally and spatially stable routine of admission, but rather often happen on the fly, as nurses seek out appropriate moments in the day. The review discussion may happen in a bedroom, in the dining room, in the playroom, or in a corridor. The arrangements and postures of bodies vary significantly—crouching on a play-mat, sat together around a dining table, and so on. This fluidity is itself an enactment of partnership, as nurses try to fit the discussion into what parents and children are doing during the day, rather than imposing an agenda on them, and thus convenient timing and location for parents prefigure the practices that lead to joint signatures. On paper the result appears similar, but the sites at and through which these are produced vary significantly, and this variation is itself an imprint of partnership.

Medical records: expanded signatures

All health professionals who interact with families on the Unit are required to document their work in shared files. These become part of a legal medical record, are archived, and may be requested as evidence in court. While professionals are accountable in some ways for demonstrating that responsibility is diffused (parents play active roles in determining courses of action) there are aspects of their work where diffusion remains restricted. Associated with the legally prescribed scope of practice for health professionals depending on their qualifications, are certain responsibilities and forms of legal accountability that sit squarely on the shoulders of the embodied individual, and on the material traces that individual leaves in documentation. Here the signature has different purposes and effects, and is produced at different sites.

Examples of focused rather than diffused responsibility and accountability include the witnessing of medications being taken, which must be signed by a qualified health professional: although parents sign as well, the responsibility falls on the professional. This applies also to the storage and dispensing of expressed breast milk, discussed in detail below. The handwritten notes (again in black ink) that form the medical record comprise what I refer to as an expanded signature. The fact that they are written by hand directly invokes a trace of bodily presence in just the way that a signature does. On any page, different styles of handwriting immediately attest to different bodies performing the writing. If a line is not totally used up in writing at the end of a section, the author fills the unused space with a continuous horizontal line of ink. This has the effect of preventing additional text being added after it has been signed off.

The signatures on these records expand further through the use of coloured stickers which are placed in the margin to denote a particular health profession (nursing, social work, paediatrician). As well as having the effect of providing an easy visual guide (for example, nurses often need to find what the paediatrician wrote, and can do so by simply looking for the relevant sticker), these also have a bearing on the legal accountability associated with what is written, as the requirements and responsibilities in law vary according to what kind of professional is doing the writing. Finally, a white sticker displaying printed information about the person whose record it is, must be placed on the top of each page. This is again a legal requirement, so the placement of the sticker has the effect of meeting specific obligations, but it also helps with tracing information should sheets become separated. One sticker is required per sheet, but several people may write on the same sheet, and there is no trace of who added the sticker: it is a diffuse kind of signature. It sits outside the notion of signature as signalling a specific embodied presence and line of responsibility and accountability that flows to and from an individual. Yet without it, each individual's responsibilities have not been met. In my time at Karitane these signatures in medical records were never activated in legal proceedings: they mostly are enacted and produced in anticipation of an unlikely yet possible future event. It would be interesting to explore whether expanded and diffuse signatures exist elsewhere in practices, whether their effects are similar, and to trace the sites that come into being when they are activated, as when practices are called into legal dispute.

Prefiguring, emerging and restoring practices through signatures and signing

I will now explore two further instances of signatures and signing, this time making explicit connections to key ideas of prefiguration and emergence (see Schatzki 2002, 2010a, 2012). This once again draws on both zooming in on the particular, and using the practice theory as a basis for zooming out, such that the specific instance is shaped by connections to other practices, while also maintaining them. Prefiguration refers to the ways in which certain actions (what it makes sense to do) are rendered more or less easy, effective, straightforward, clear, and so on. Emergence refers to the idea that practices are always to some extent responsive to particular conditions and events. I add a third notion of restoration in reference to forms of action that are needed on a regular basis to deal with the emergent nature of practice, the fact that things are not "sewn up" before they happen, but emerge, and thus require attention in order to keep them hanging together, triggering temporary sites with a restorative function. I use the term restorative rather than corrective, because the latter might imply some kind of mistake had been made, and this is not my meaning.

Referral forms

All families are referred to the Unit by a third party, usually a general practitioner (GP). Parents are asked to bring a copy of the referral form with them but, understandably, often do not do so. Regimes of accountability require material evidence of who referred clients and why. The act of asking parents whether they have the referral form with them is prefigured by these requirements: the asking is not guaranteed, but the conditions are shaped such that it makes sense to do so. Routines of placing the forms in particular folders, and in particular relation to (before/after) other pieces of paper within those folders are extensions of this prefigured activity. The emergent discovery that parents do not have the form with them prefigures a set of routine restorative practices. A nurse will ask for the name of the GP, and referring to other information about the parent's address, will use a telephone directory to look up the number of the GP, and then make a phone call in order to request that the referral form be faxed through. The initial absence of the form brings about a site of doings and sayings, bundled with things, which normally then produces the form, brought into material being by the fax machine adding black ink to a white piece of paper. The form emerges.

However, sometimes the routine restoration does not quite function as hoped. On one occasion the resulting fax was slightly misaligned, such that the doctor's signature and the stamp with details of the surgery were cropped off the edge of the page. It emerged incorrectly. The nurse spotted this minute material slip, and so began again the process of telephoning the GP, seeking to ensure that the fax machines at both ends were correctly set up in order to produce the referral form in full. My point here is to show how material arrangements are not coarse in their constitution of the site: the colour of ink, the placement of a signature too far towards the edge of a page, matter, as matter.

Expressed breast milk

I will now consider an episode prompted by a mother asking a nurse to sign out some expressed breast milk (EBM) so she can feed her infant. This request brings about a prefigured yet emergent suite of doings and sayings bundled with keys, signatures, syringes, fluid, bodies and markings.

The nurse responds by getting keys to open the locked fridge in which the EBM is kept. The use of the lock the material potency of the liquid and the regimes of accountability which hang off it. The nurse opens a green EBM folder, unlocks the fridge, and removes a metal tray with a label indicating the date, names and room number of the mother and child. She takes a syringe and draws out the liquid remaining in one of two containers, noting the volume of 9mls, depositing it in another tub. She draws and deposits milk from a full container in 10ml quantities until she reaches 79ml. She adds a final 1ml to give a total of 80ml. She takes a paper towel and writes 109-80, referring to the folder to ascertain the total volume before removal (109). She checks the remaining volume against her calculation. The nurse then fills out a form detailing volumes of liquid, time, date, and both she and the mother sign it. The mother remarks "this is a lot of faff compared to home. I don't do all this measuring." The nurse replies "Yes, I understand, but here we have to. We can't give any away, especially with the risk of Hepatitis B."

Here we see an example of practice where the rubrics of partnership apply more weakly than the regimes of accountability relating to the storage and distribution of EBM. The material potency of breast milk as a potential carrier of Hepatitis B is a primary reason why such elaborate practice-material bundles are enacted in response to a mother's desire to do something she does routinely and much more simplistically at home. The locked fridge, the folder, the precise measurements, the act and product of signing: they are tracers of the requirement not only to avoid

EBM going missing or being presented to the wrong infant, but also of the need to account for safe practices. Rather than the diffuse responsibility, and joint epistemic work of the admission and progress review, partnership is weakened here. Responsibility and accountability are finely focused on the professional, who holds the keys, measures the milk, and completes the form. The second signature of the parent acts as a confirmation that the right body was there to receive the EBM than as a testament to negotiations or shared accountability. That said, the mother is not wholly excused of accountability: her signature traces her agreement at the time that the source and quantity of EBM are as specified. Such practices are strongly prefigured, and emerge when resident mothers express, and more specifically, at moments when they wish to feed their children. The strong prefiguration through keys, folders and syringes is designed to reduce the need for restorative work.

Conclusion: the ecologies of signatures and signing

I will conclude by drawing on Kemmis' (2009; Kemmis et al., 2012) concepts of practice architectures and ecologies of practices. I find these particularly helpful in clarifying and extending the work of "zooming out" (Nicolini, 2009, 2012). The FPM is a specific instantiation and articulation of partnership-based approaches to supporting families, and as such expresses one form of coproduction. According to Kemmis, FPM, and other coproductive models or policies, are not to be treated as a kind of external entity, or as part of a context which contains specific practices. Rather, FPM forms a practice architecture, comprising material-economic, cultural-discursive and socio-political dimensions. The bearing FPM has on practice is entirely defined by and expressed through the doings, sayings and relatings (mirroring architectures triad) that occur at any particular site. By using acts of signing and the signatures they produce as tracers, I have shown how FPM does shape the site at the Residential Unit. In doing so I have illustrated how multiple forms of knowledge, shared epistemic work, diffuse responsibility and accountability are both brought into being through and reflected in signing and signatures.

However, as I have explored elsewhere (Hopwood et al., 2013) FPM, and coproductive agendas more generally, do not hold exclusive sway over the architectures that prefigure practices. They can be understood as part of ecologies of practices, where relations of interdependence shape responses and adaptations. Other regimes of accountability, focused on individual professional bodies as performers of epistemic labour and sites of responsibility, continue to operate. These may prefigure practices designed to reduce emergent qualities and the need for restorative work, or may render practices highly sensitive to apparently minor variations, such that restorative practices are required. Coproduction is heralded as a hallmark of an era of new accountabilities and transformed professional work, yet examining acts signing of and signatures, we see that at the site, practices are upheld through forms of prefiguration, emergence and restoration that both realise and trouble the coproductive ideal. While partnership is clearly evidence, it seems that there remains a sticky residue in the form of the embodied professional as a unit of being, doing and being accountable that will be hard to erase entirely.

This understanding reasserts the importance of questions relating to asymmetries of power and dependency in partnership. Addressing these lies beyond the scope of this paper, but nonetheless, it seems that taking signatures as an empirical and analytic focus would likely be highly fertile for pursuing these questions further, offering a basis for a much-needed critical investigation of partnership, shared accountability and the potential for discourses of power sharing to hide symbolic violence and inequity.

In terms of its wider theoretical contribution, I hope in this paper to have demonstrated the value of attending to signatures and signing as points of departure

for distinctive ways of understanding issues of partnership, responsibility and accountability in professional practice. While signatures and signing are common features of professional practices, they are rarely examined in their own right. Yet, I have shown that doing so can be highly productive, particular when drawing on the conceptual tools offered by practice theory. In particular signatures constitute an ideal focus for work that follows Nicolini (2009, 2012) and both zooms in on specific enactments in local settings, and zooms out to understand their connections to other practices. Through an analysis of signatures that builds on practice theoretical foundations, I have elucidated features of professional knowing, epistemic and relational work in partnership-based professional practices, without neglecting to attend to the material world in doing so. Through signatures, we can understand partnership, responsibility and accountability as sociomaterial phenomena: locally enacted and instantiated, yet shaped through connections with other practices which each enactment itself upholds.

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References

- Clerke, T., & Hopwood, N. (2014). *Doing ethnography in teams: A case study of asymmetries in collaborative research*. London: Springer Press.
<http://dx.doi.org/10.1007/978-3-319-05618-0>
- Davis, H., & Day, C. (2010). *Working in partnership: The Family Partnership Model*. London: Pearson.
- Davis, H., Day, C., & Bidmead, C. (2002). *Working in partnership with parents: The Parent Adviser Model*. London: The Psychological Corporation.
- Davis, H., & Fallowfield, L. (1991). *Counselling and communication in health care*. London: Wiley.
- Davis, H., & Meltzer, L. (2007). *Working with parents in partnership*. London: Department for Education and Skills.
- Dunston, R., Lee, A., Boud, D., Brodie, P., & Chiarella, M. (2009). Co-production and health system reform - from re-imagining to re-making. *The Australian Journal of Public Administration*, 68(1), 1-14.
<http://dx.doi.org/10.1111/j.1467-8500.2008.00608.x>
- Fenwick, T. (2012). Co-production in practice: a sociomaterial analysis. *Professions & Professionalism*, 2(2). <http://dx.doi.org/10.7577/pp/v2i1.323>

- Fenwick, T., Edwards, R., & Sawchuk, P. (2011). *Emerging approaches to educational research: Tracing the sociomaterial*. London: Routledge.
- Fowler, C., Rossiter, C., Bigsby, M., Hopwood, N., Lee, A., & Dunston, R. (2012). Working in partnership with parents: the experience and challenge of practice innovation in child and family health nursing. *Journal of Clinical Nursing*, 21(21-22), 3306-3314. <http://dx.doi.org/10.1111/j.1365-2702.2012.04270.x>
- Gherardi, S., & Landri, P. (2012, 9-11 May). 'I sign, therefore I am': (Un)stable traces of professional knowledge, practice and identity. Paper presented at the ProPEL International Conference - Professions and professional learning in troubling times: emerging practices and transgressive knowledges, Stirling.
- Green, B. (Ed.). (2009). *Understanding and researching professional practice*. Rotterdam: Sense Publishers.
- Hager, P., Lee, A., & Reich, A. (Eds.). (2012). *Practice, learning and change: Practice-theory perspectives on professional learning*. Dordrecht: Springer. <http://dx.doi.org/10.1007/978-94-007-4774-6>
- Hopwood, N., & Clerke, T. (2012). *Partnership and pedagogy in child and family health practice: A resource for professionals, educators and students*. Saarbrücken: LAP Lambert Academic Publishing.
- Hopwood, N. (2013a). Ethnographic fieldwork as embodied material practice: reflections from theory and the field. In N. K. Denzin (Ed.), *40th anniversary of studies in symbolic interaction (Studies in symbolic interaction, volume 40)* (pp. 227-245). Bingley: Emerald Group Publishing Limited.
- Hopwood, N. (2013b). The rhythms of pedagogy: An ethnographic study of parenting education practices. *Studies in Continuing Education, Online Preview*(01 May 2013). <http://dx.doi.org/10.1080/0158037X.2013.787983>
- Hopwood, N. (2013c). Understanding partnership practice in primary health as pedagogic work: what can Vygotsky's theory of learning offer? *Australian Journal of Primary Health*. <http://dx.doi.org/10.1071/PY12141>
- Hopwood, N. (in press). Using video to trace the embodied and material in a study of health practice. *Qualitative Research Journal*.
- Hopwood, N., Fowler, C., Lee, A., Rossiter, C., & Bigsby, M. (2013). Understanding partnership practice in child and family nursing through the concept of practice architectures. *Nursing Inquiry*, 20(3), 199-210. <http://dx.doi.org/10.1111/nin.12019>
- Jensen, K., Lahn, L. C., & Nerland, M. (2012). Introduction - professional learning in new knowledge landscapes: a cultural perspective. In K. Jensen, L. C. Lahn, & M. Nerland (Eds.), *Professional learning in the knowledge society* (pp. 1-24). Rotterdam: Sense Publishers. <http://dx.doi.org/10.1007/978-94-6091-994-7>
- Kemmis, S. (2009). Understanding professional practice: a synoptic framework. In B. Green (Ed.), *Understanding and researching professional practice* (pp. 19-39). Rotterdam: Sense Publishers.
- Kemmis, S., Edwards-Groves, C., Wilkinson, J., & Hardy, I. (2012). Ecologies of practices. In P. Hager, A. Lee & A. Reich (Eds.), *Practice, learning and change: Practice-theory perspectives on professional learning* (pp. 33-49). Dordrecht: Springer. http://dx.doi.org/10.1007/978-94-007-4774-6_3
- Kemmis, S., & Grootenboer, P. (2008). Situating praxis in practice: practice architectures and the cultural, social and material conditions for practice. In S. Kemmis & T. J. Smith (Eds.), *Enabling praxis: Challenges for education* (pp. 37-63). Rotterdam: Sense.
- Needham, C. (2006). Coproduction in public services: opportunity or threat? *Renewal*, 14(2), 55-60.

- Needham, C. (2007). Realising the potential of co-production: negotiating improvements in public services. *Social Policy & Society*, 7, 221-231.
<http://dx.doi.org/10.1017/S1474746407004174>
- Nicolini, D. (2009). Zooming in and out: studying practices by switching lenses and trailing connections. *Organization Studies*, 30(12), 1391-1418.
<http://dx.doi.org/10.1177/0170840609349875>
- Nicolini, D. (2012). *Practice theory, work and organization: An introduction*. Oxford: Oxford University Press.

- Olds, D. (2006). The Nurse-Family Partnership: an evidence-based preventive intervention. *Infant Mental Health Journal*, 27(1), 5-25.
<http://dx.doi.org/10.1002/imhj.20077>
- Rossiter, C., Fowler, C., Hopwood, N., Lee, A., & Dunston, R. (2011). Working in partnership with vulnerable families: The experience of child and family health practitioners. *Australian Journal of Primary Health*, 17(4), 378-383.
<http://dx.doi.org/10.1071/PY11056>
- Schatzki, T. R. (1996). *Social practices: A Wittgensteinian approach to human activity and the social*. Cambridge: Cambridge University Press.
<http://dx.doi.org/10.1017/CBO9780511527470>
- Schatzki, T. R. (2001). Introduction: practice theory. In T. R. Schatzki, K. Knorr Cetina, & E. von Savigny (Eds.), *The practice turn in contemporary theory* (pp. 1-14). London: Routledge.
- Schatzki, T. R. (2002). *The site of the social: A philosophical account of the constitution of social life and change*. University Park, PA: Pennsylvania State University Press.
- Schatzki, T. R. (2003). A new societist social ontology. *Philosophy of the Social Sciences*, 33(2), 174-202. <http://dx.doi.org/10.1177/0048393103033002002>
- Schatzki, T. R. (2010a). Materiality and Social Life. *Nature and Culture*, 5(2), 123-149. <http://dx.doi.org/10.3167/nc.2010.050202>
- Schatzki, T. R. (2010b). *The timespace of human activity: On performance, society, and history as indeterminate teleological events*. Lanham, MD: Lexington.
- Schatzki, T. R. (2012). A primer on practices. In J. Higgs, R. Barnett, S. Billett, M. Hutchings, & F. Trede (Eds.), *Practice-based education: Perspectives and strategies* (pp. 13-26). Rotterdam: Sense.
http://dx.doi.org/10.1007/978-94-6209-128-3_2
- Srivastava, P., & Hopwood, N. (2009). A practical iterative framework for qualitative data analysis. *International Journal of Qualitative Methods*, 8(1), 76-84. <http://ejournals.library.ualberta.ca/index.php/IJQM/article/view/1169>
- Wright, L. M., & Leahey, M. (2009). *Nurses and families: A guide to family assessment and intervention* (5th ed.). Philadelphia: F A Davis.