Chapter 5
Terroir and Timespace: Body Rhythms in Winemaking

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Rhythmic Practising Bodies at Work

In this chapter, I take up the question of the body as resource(s) for practice: how the body performs and is used in practice and for work, is an embodied signifier of practice and what this means for our understandings of changing practices. I am particularly interested in practice dynamics and the kinds of conceptual and analytical resources that help researchers model and represent the collective interactivity of practising bodies. This dynamical focus examines the nuances of moving bodies embedded in purposeful spatiotemporal patterns called rhythms that I claim structure work practices, the practice of work, and the discovery of novelty from within routinised patterns that can lead to changing practices.

My discussions illustrate the dimension of body-ness that Schatzki (2010a, pp. 116–117) characterises as the instrumental body, or how bodily actions affect and are affected by the performance of other actions. My claim is that such actions do not occur in a haphazard or coincidental way (although they can) but that there are particular *enacted and embodied* rhythms to practice, generating a periodicity that enables practitioners to recognise and construct their practice together. Further, there is not just one rhythm to a particular practice, but multiple rhythms of various kinds that require practitioners to sort through choices for action and at any temporal moment 'orchestrate' (Schatzki 2009, p. 42) how collectively to go on. I suggest that such moments of 'synchronic sensitivity' (Gergen 2009, p. 165) are significant to

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B. Green, N. Hopwood (eds.), *The Body in Professional Practice, Learning and Education*, Professional and Practice-based Learning 11,
DOI 10.1007/978-3-319-00140-1_5

practitioners who, in and through their bodily actions and understandings, instantiate their professional practice in ways that collectively shape future trajectories of practice.

In laying out my analytical interest in rhythmic, practising and working bodies, understandings of *timespace* are central to the issues discussed in this chapter. I prefer to use the term timespace to acknowledge the inseparability of questions of time with questions of space, as critical geographers (e.g. Massey 2005; May and Thrift 2001; Soja 1996) have long recognised and social philosophers (e.g. Schatzki 2009, 2010a) have further unpacked more recently. Linking the interrelatedness of time and space with material concerns of practising bodies provides an opportunity to challenge (again) Cartesian mind/body dualism; to shift the gaze onto the contemporary task of synthesising embodiment, movement and relationality into patterns of relational geometries (Hopwood 2013a, this volume (Chap. 4); Yeung 2002) that can assist our understandings of why practices change.

In art design, rhythm is represented by timed movement across space, the beats 'sensed' by the eyes (Jirousek 1995). In music, rhythm is represented by patterns of regular/repetitive or sometimes alternating (short/long; soft/loud) sounds over time that may include occasional moments of emphasis called accents (Sachs 1988) 'sensed' by the ears. Importantly, rhythm also has historical significance in biological processes that interconnects bodily corporeality, multi-sensorial sensibilities and environment within repetitive cyclical durations or across geographic space (e.g. the effects of seasonality; circadian or bio rhythms and their alteration effects such as jet lag). Sociologists and philosophers such as Mauss (1973) and Lefebvre (2004) – himself drawing upon Bachelard's (1964) earlier concept of the poetics of space – have productively theorised the intimate connection between the body and its rhythms. However, their conceptual contributions are not yet prevalent in mainstream practice or learning research literature; Hopwood's (2013b) rhythms of pedagogy in the context of parenting education is one recent exception.

So it is with the body that I start. I first elaborate on the role of Maussian techniques of the body (1973) in attending to the performative and symbolic nature of human actions. Mauss reminds us that the human body is a natural instrument containing unique mechanisms for technical transmissions that substitute for a lack of instinctual behaviour resident in animals. Technique here is understood as the synthesis of tradition (or *habitus*, that comes from education of past practices) with effective action being local adaptation or fitting in with the environment or local context. While Mauss discusses his techniques of the body using exemplars of cultural practices such as walking, sleeping and swimming, the application to contemporary professional practice remains relevant. For example, in theorising professional practice and social practice, Kemmis (2009), Schatzki (2002, 2010b) and Fenwick (2012) suggest that current practice is shaped by past or prefigured practices that are mediated through the materialities of practice. For Mauss (1973, p. 76), the body is a complex system of assemblages, involving symbolic and irreducible physio-psycho-socio actions that attend to positional matters relative to the environment, or what Pirani (2005, p. 264) characterises as sensory bodyframes acting in a rhythmical itinerary within local topographies of action.

I next use Lefebvre's (2004) rhythmanalysis concepts, specifically his use of oppositions (and oppositional concepts from others), to examine in more detail how it is that repetition and surprise can generate a rhythm of practice that is productive. If periodicity and regularity provide symbols of familiar practice, then under what conditions does surprise (variation, difference) occur that leads to innovation or a change in practice? The basis of changing practice and learning new practice would seem to hinge on what practitioners attend to that directs them to alter their choices for action or to raise some dissonance (alternate accents?) against the continuing periodicity of a prefigured practice. Further, how do local differences (e.g. of dissonance) gain momentum for more global changes in the practice at-large? Such rhythmical questions taken from the perspective of Csepregi's (2006) clever body or Merleau-Ponty's (1989) expressive body highlight that the instrumental body cannot be divorced from the aesthetic body; nor can we discount the idiosyncratic, affective and emotional resonances of human interactions when practising together: see for example, my characterisation of tempo-rhythms in the culinary dynamics of practising apprentice chefs in Johnsson (2012).

The empirical context in which I research rhythmic practising working bodies is an Australian winemaking enterprise that I call *Winery*. Winemaking is said to depend on the refined olfactory sense of the winemaker in judging what it takes to produce a quality wine (Parr et al. 2003). Yet a winemaking enterprise must enhance this core competence with other resources (including other bodies) into commercial success. My research suggests that the winemaking practices needed to sustain a winemaking enterprise requires complex collective orchestration of natural and manufactured resources. The purpose and sociology of work demarcates the topographic arenas in which working bodies (Wolkowitz 2006) and their sensory experiences of embodiment (Hockey and Allen-Collinson 2009) come together in rhythmic patterns of movements that are both instrumental and meaningful in the (co-)production of work. I discuss the presence of body rhythms at this research site, draw out their practice-based significance, and conclude with identifying some implications for researching practice that is underpinned by relational-synchronic understandings of the body.

Techniques of the Body and Body Rhythms

The Instrumental Body Moving Through Local Topographies of Action

The French sociologist Marcel Mauss (1973) observed in his 1934 lecture how the technique of diving has changed from closing one's eyes upon diving then opening them under water to the reverse within the time period of his generation, or to recognise a girl raised in a convent from the way she closes her fists while walking. At the heart of his cultural examples are claims about the importance of tradition and *habitus* (forms of collective knowledge, rather than *habitude* meaning

habits) shaping 'techniques … of collective and individual practical reason … that vary across societies, educations, proprieties and fashions, prestiges' (Mauss 1973, p. 73). For Mauss, humans have a unique capacity for technical transmission through the natural instrument of our bodies that lead to constant adaptation of actions through our physiological (e.g. raising our eyebrows as a recognised form of communicative query), psychological (e.g. attributing laziness to an employee absence) and sociological (e.g. adopting the social protocol of walking to the left or right on footpaths) apparatuses.

As Mauss (1973, p. 76) puts it,

> [there is] a series of assembled actions, and assembled for the individual not by himself [sic] alone but by all his education, by the whole society to which he belongs, in the place he occupies in it … [such techniques are arranged in] a system of symbolic assemblages.

Thus, Mauss makes us aware that as purposive human beings, we perform a series of assembled actions that may be imitated and repeated actions based on educative tradition but in constant positional adaptation relative to one's bodily place in the current context. Routineness and periodicity provides a basis for practice recognition that symbolically verifies collective working in the same practice (as Wittgenstein (1968) might observe: a family resemblance). Such regulation invites responses by other practitioners to coordinate movements, by imitating, repeating or adjusting bodily actions in relation to other practitioners' timespace positions.

Pirani (2005, p. 241) elaborates on these Maussian concepts by observing that 'the technique of the body synchronizes humans with surrounding conditions through learning and action practices that structure the organizational identity of a group or society. The learning of the technique of the body appears as an active process of fitting in with the world'. Importantly in this process, 'education … imprints in body attitudes *data of acquired traditions*' (Pirani 2005, p. 242, my emphasis). Here, Pirani recognises that the body is a critical carrier of (learned past) practice in an analogous way that Hopwood (Chap. 4, this volume) discusses data embedded in the ethnographic body.

However, the progress of practice is not just one body as the carrier of practice in isolation. Rhythms are regulating mechanisms that serve to synchronise and order the (inter)actions of multiple bodies operating within an interconnected topography of action, with each body reflecting different webs of relations and past understandings. Rhythms consist of a series of intervals: the period between the start of one cycle and the next. Once practitioners sense the pace and speed of the rhythmic interval, they have reasonable anticipatory expectations about when the next cycle will recur, allowing them to regulate (i.e. adjust the speed of) their movements accordingly. For example, in wine bottling operations, such a periodic cycle exists between the start and end point of packing cartons of wine and also at a more micro level of repetitive hand motions when making up one rectangular carton from its initial flat cardboard state. Such synthesis of educative traditions with local individual positional movements contributes to social memory, sustaining the synchronicity with which the group collectively performs coordinated actions over time. In effect, a topographic itinerary of adaptation is created where intervals are reinforcing sites of convergence for social action (Pirani 2005, pp. 265, 269).

Rhythmanalysis and Rhythms: Attending to Repetitions and Oppositions in Moving Bodies

Yet the instrumental body is not merely a mimetic body moving in monotonous synchrony, for otherwise how would practices change, where would the creativity and diversity of practice originate? Here I look to Lefebvre (2004) and the attention he gives within his rhythmanalysis project to the body and the role of oppositions.

First, Lefebvre (2004) makes a series of points that supports a systemic rhythmicity of the body interacting in the world:

- The theory of rhythms is founded on the experience and knowledge of the body (p. 67).
- The living – polyrhythmic – body is composed of diverse rhythms, each 'part', organ or function having its own, in perpetual interaction (p. 80).
- Yet [the body is] subject to a spatio-temporal whole [*globalité*] (p. 81).
- [The body] is the site and place of interaction between the biological, the physiological (nature) and the social (often called the cultural) where each of these levels has its own specificity … its own space-time: its rhythm (p. 81).

Yet Lefebvre cautions: 'for there to be rhythm, there must be repetition but not just any repetition' (Lefebvre 2004, p. 78). But what kind of repetition is unclear from my close reading of Lefebvre's rhythmanalysis text. Is 'repetition' set up in opposition to 'difference' so that Lefebvrian rhythms are 'combinations and intersections of repetition and difference', as Hopwood (2013b, p. 9) observes in his parenting education context? Or is there value in the occurrence of surprise as the basis of opposition when the anticipated repetition does not continue? Richards (cited in Young and Schuller 1988) offers a nuanced chronosociological view that I believe has much to offer Lefebvre's theory of rhythms:

> Rhythm and its specialised form, metre, depends on repetition and expectancy. Equally where what is expected recurs and where it fails, all rhythmical and metrical effects spring from anticipation … The mind, after reading a line or two in verse … prepares itself ahead for any one of number of possible sequences at the same time negatively incapacitating itself for others. The effect produced by what actually follows depends very closely upon this unconscious preparation and consists largely of the further twist which it gives to expectancy … *It is in terms of the variation in these twists that rhythm is to be described … This texture of expectations, satisfactions, disappointments, surprisals, which the sequence of syllables brings about, is rhythm* (Richards, cited in Young and Schuller 1988, p. 14, emphasis by Young and Schuller).

Yet another concept of opposition is offered by Csepregi's (2006) discussion of rhythms in human kinesics. In dance and musical performances, rhythm has a relational responsive orientation (Cunliffe 2008) in that

> we not only send various rhythmic signals, but also adopt the subtle rhythmic suggestions coming from others … our rhythmic sensibility consists of identifying ourselves with some temporal sequences [so that] we group together the temporal segments or phases of movement and emphasize some of their moments. To perceive rhythm, we must have the capacity to group recurrent impressions and articulate patterns with an accent (Csepregi 2006, p. 95).

Here the role of rhythm goes beyond Pirani's (2005) ordering of topographic action shaped by Maussian educative traditions, recognising the uncreative limitations of only following past rules. Rhythm becomes a relational expressive device that acknowledges *co-created* sensory alignment (however fleeting) embedded in movements and over the duration of the performance. At any unanticipated and perhaps idiosyncratic moment, we express our desire to challenge the preceding regularity, i.e. to interrupt, vary or to create an alternative (using the device of accents in rhythms). So for rhythmical work especially in the performing arts, 'it is the accent that endows the movement with a subjective character' (Csepregi 2006, pp. 101–102). Our bodies express the relevance of rhythms not only through changing particular sensorimotor movements but also with our emotions and our subjective understandings. To single out the instrumental rhythmic body is a convenient focusing tool for analysis but it ignores the co-existence of related aesthetic functions of the body that endow personal meaning to those rhythms.

Using these theoretical concepts and borrowing analogies from the creative arts (Jirousek 1995; Sachs 1988), I identify four rhythmic elements that can be distinguished for analytical purposes:

- Repetitive (R) elements whose main function is to *regulate or order work*. The temporal elements are cyclical or similar in durational length, the size or intensity is even, allowing practitioners to inferentially anticipate when the interval will end and the next cycle will begin. Bodily interactions strive to *synchronise* to the timing of the cycle, reinforcing social convergence of action (Pirani 2005, p. 265).
- Progressive (P) elements whose main function is to show progression or a *gradation of elements in sequentially-connected work*. Through Maussian (1973) educative traditions, progressive elements follow other elements in a particular sequence that become or serve as recognisable sub-patterns of work. Here, working bodies serve as the sensorial canvas for Pirani's (2005, p. 242) 'data of acquired traditions' to publicly demonstrate *knowing-next* competence or shared processual understandings of progressive sequences.
- Emphasis (E) elements whose main function is to *highlight or accentuate a differentiated occurrence of work*. This signals a break from the regularity of Repetitive and Progressive elements, but in a benign way to sustain the momentum of movement or even creatively introduce variability or improvisation. Bodily interactions here signal a creative *sensory point of interest or foreground attention* on a specific temporal moment, a variation in the flow of work, raising the need for embodied alertness of the human senses that can degrade in contexts of constant routineness.
- Oppositional (O) elements whose main function is to *interrupt work* or to exhibit different and dissonant instances of changed work. This is Lefebvrian arrhythmia (2004) working to challenge the norms and regularities of prefigured practices, challenging the existing instantiation of current work, demanding or placing in view the possibilities for alternative arrangements of work. Bodily interactions serve is the evidential break point, occasionally a tipping point (Gladwell 2000) in which change occurs locally or leads to more global changes later.

I next discuss the empirical research context within which I illustrate alternative ways of representing work practices, including applying this rhythmic vocabulary.

Practising the Body Rhythms of Winemaking

The Research Site: Winemaking Practices in a Winemaking Enterprise

Winery is a medium-sized (approximately 50 employees) boutique winery located in the Hunter Valley region, approximately 2 h north of Sydney, Australia. Winery's product range is positioned as upmarket and niche (in Australia, commanding an average retail price at $20 or more per bottle) with a range of white and red wines, many of which have won prestigious international wine awards.

I was part of a research team that investigated Winery's workplace learning practices over a 3-month timeframe. Courtesy of Winery's management, I was allowed open access to the vineyards and winery facilities, employees, products and documentation during workdays over multiple visits, as well as invited to join employees at community dinners held late at night (the timing of our study came at the busiest time of the year, shortly after harvest). We collected and generated a range of ethnographic research materials. They encompassed field observations of all operational work practices as well as of cellar door customer interactions, photographs of work-in-action, practitioner interviews that were audiotaped and then transcribed, analysis of documentation such as marketing flyers, tasting notes, cellar door meeting minutes, wine labels, employee newsletters and website information. Two practitioner interviews on learning wine practices occurred around the communal dining table over a shared meal and wine at 10 pm for logistical availability reasons. This experience highlighted to me how the professional, social and educative dimensions of practice are inextricably linked for this particular community of practice.

The purpose of our research was to understand how learning embeds and integrates in work; the unit of analysis and focus of our research was on work practices that structured the performance outcomes of the enterprise. We were particularly interested in how and why practices changed (e.g. the switch from corks to screw caps that altered bottling technologies and practices) and how and why practitioners learned to change their practices (e.g. the interrelatedness of knowing, telling, watching, showing, doing and sensing when a winemaker alters the chemical content during fermentation, a process where sugar converts to alcohol). As part of representing how learning occurs up, down and across the enterprise (Johnsson et al. 2012), I became interested in the patterns of human behaviour that underpinned enterprise dynamics. I observed how those behaviours and practices were not just coordinated in time and space at key points of practitioner handover, but appeared anchored by an aesthetic ethos relevant in this industry that is identified as *terroir*.

A Place of Meaning: Terroir as Cultural Place-Making

Terroir is a French concept well understood by producers of wine and other products grown from the earth that remains difficult to explain in words. It recognises the uniqueness that arises from a sense of place inscribed by local geography, geology, soil and climate conditions, but is used more to capture the ethos and cultural journeys of lived spaces (Soja 1996; Schatzki 2001; Trubek 2008). Such lived spaces are constantly remade in meaningful ways so that respect for *terroir* means more than a geographic location or a source of livelihood. It is similar to the emotion-laden difference between creating a home rather than describing the physical location of one's residential address. In winemaking, listening to *terroir* acknowledges the gift and traditions of the land that result 'from generations of experiments in growing techniques, grape varieties and production methods' (Coover 2004, p. 185).

In researching the Napa Valley, Swinchatt and Howell (2004) exemplify *terroir* by presenting powerful visual and sensory images of winery life underpinned by life stories when documenting their winemaking research. Their book is a homage to the interrelatedness of organic, material and human resources that combine to collectively tell the lived stories of the Napa Valley as a unique cultural icon – its commercial evolution as a winemaking region, the enjoyment of food and wine as tourist destination experiences, and wine's broader connections to social practices, culinary practices and tourism practices in contemporary society.

At Winery, respect for *terroir* is realised through the passion with which workers recognise the hero in this business – the grape as shaped by natural conditions that can only be partially controlled by human intervention (e.g. chemically treating oidium fungal disease or protecting the grapes from frost, fire or the ravages of rain). Workers strive for excellent performance in all aspects of human processes in winemaking (e.g. sorting out spoiled grapes during harvest, judging the duration of the fermentation period or assessing the volume of yeast to add). Yet, there is a *je ne sais quoi* excitement and acceptance that each year's harvest is a creative adventure (Swinchatt and Howell (2004) call it the winemaker's dance), producing embodied offerings of human labour that connect to the lifeworld of places and materialities that mean more than the physical products of wine.

This is craftwork of a special collective kind that celebrates the value of difference: one that combines judgement and proficiency, intuition, risk-taking and past practices, a discerning palate that does not preclude commercial acumen and work organisation based on knowledge distributed across many practitioners (Orlikowski 2002). By convention, this craftwork foregrounds the expertise of the winemaker and the positioning of the brand. In contemporary wine practice (partly as a marketing strategy to reduce commodification in a global oversupply industry), wine is not only positioned as a product to purchase but increasingly as a winetasting experience; part of a societal trend of living in the experience economy (Pine and Gilmore 1999). To sell wine, current practice markets the back-story of how the winemaker started winemaking and what philosophy guides the varieties of wines she produces. It also requires the winemaker to act as a highly-visible marketing

participant in wine-club dinners and vineyard tours rather than traditionally hidden within cool dungeons overseeing wine vats and oak barrels or in the laboratory testing chemical compositions and reactions.

Such craftwork requires close interweaving of various phenomena to produce quality wine:

- Natural rhythms of core materials and non-human actors – for example, the biological growth cycle of grapes and the favourable seasonality of climate.
- Manufactured processes and materials involving periodic human intervention – for example, the progressive stages of winemaking from viticultural science through harvesting, sorting, crushing, extracting, fermenting, aging, bottling to cellar door operations.
- Feedback cycles of human sensory experiences – certainly olfactory acumen, but also recognising the changes in food/wine cuisine trends that influence winetasting preferences and wine consumption trends, that subsequently impact the availabilities of wine varieties and customise wine production processes.

Representing Practice Dynamics: Descriptive Limitations

Methodologically, a linear process flow diagram cannot capture the materiality and human interactions of what happens in everyday Winery practice. Yet such diagrams are common in business studies, often using the concept of 'a value chain' starting with raw materials and showing the stages of (human) value-added activities that build upon these raw materials to produce and distribute finished products. For example, Fig. 5.1 shows the value chain I created for Winery's operations that

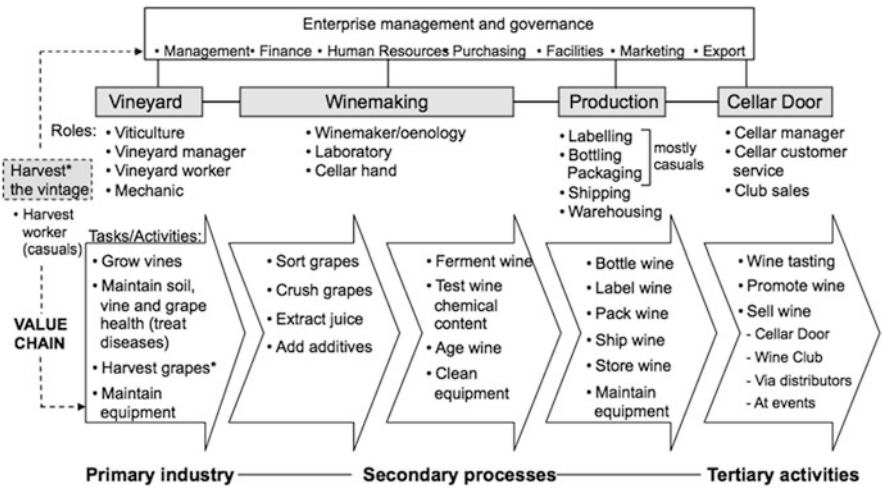

Fig. 5.1 Winery's value chain (Source: Characterisation of value chain based on Carlson cited in Charters et al. (2008, p, 139) and direct researcher observations at the research site)

allowed us to document where (functionally) and how (processually) practitioner roles and practitioner work fit into this enterprise to generate its business outcomes.

While Fig. 5.1 provides a skeletal educative understanding of core winemaking processes and, at best, a simplistic taxonomy of winemaking, most aspects of bodily interactions remain invisible using this form of documentation of practice. In contrast, I created the following ethnographic field note while observing Winery's bottling operations. I believe it provides a richer representation of the interrelatedness of bodies, practice and materiality that describes how 'bottle wine, label wine, pack wine' (Fig. 5.1 under Production activities) actually occurs. Note that all names used are pseudonyms.

> In the bottling room, four packers garbed in hairnets and white coats place themselves at certain positions around the moving conveyor belt production line. It creaks, whistles, hums, metal scrapes on metal, bottles clank together, making all the usual noises associated with a motorised moving assembly line with many mechanical parts.
>
> A screw cap drops down to the top of the bottle and the mechanical arm twists the full bottle of wine at the designated tension to seal it as the bottle passes the screw cap station. Next, labels unfurl from a roll as the machine stamps Winery's label (we are bottling pinot noir today) onto the bottle under the watchful eye of Anne who ensures the label has been placed 'exactly so' – this height, this width from the bottle's edge – by the machine, otherwise it will need to be manually re-done.
>
> Towards the end of the assembly line, flat pieces of cardboard lay messily at one end waiting for Nathan to make up a carton box to hold six bottles of wine. His aged face is creased with 'experience or smile' lines and wrinkles. Two of his fingers are taped with white adhesive tape (paper cuts perhaps), his hands show several calluses from long-term hard manual labour. As the labelled bottles roll along the conveyor belt towards him, his arms and hands angle out and in, expertly making the motions to make up the box (he is not even looking down at his hands or the box, but across to Anne while chatting about the football score last weekend). He places six bottles into his prepared carton (from where I am observing, it looks like positions 1,6,3,4,2,5) and I am curious as to why he places the sequence of bottles into the carton in the order that he does – is this some tacit bottler practice that best protects the bottles during transport, I wonder?
>
> In the ten times I see Nathan to make up a carton, I notice how subtly he speeds up or slows down depending on what is happening further up in the production line – once, a bottle gets caught at an irregular angle on the rollers, creating a temporary logjam for the bottles behind, slowing down the rate of movement of finished bottles coming towards him. Nathan first stretches his spine outwards and then hunches his sinewy body over, resting his elbows for a few seconds on top of his empty box, in wait mode until the bottles are close enough to handle. One time, Deborah (who normally inserts the cardboard divider into Nathan's boxes as the next stage before the final sealing of the box) senses that Nathan needs to speed up. Presumably to avoid a potential logjam or hazardous outcome, Deborah takes two steps closer to Nathan to quickly create an extra box and packs six bottles in parallel with what he is already packing. They both insert cardboard dividers into their boxes before allowing their still-open boxes to move past towards Chris who is sealing them through a taper. Deborah moves back to her station after she is done.
>
> There is no talk (apart from social talk) when this happens: they each know what is required. They each synchronise their bodies and bodily movements to the regular, but not always predictable, momentum of the bottling line. As packers, they recognise they are performing a shared practice where coordinated body movements in the bottling room allow the entire operation to flow smoothly; it is a relational practice where it is important to 'tune into' each other to collectively achieve the work that is required.

> The wooden pallet at the end of the assembly line starts to pile up with filled, sealed six-pack cartons of wine. When there are two rows across by two wide by two high six-packs, making a symmetrical tower on the pallet, suddenly there is a different flurry of movement beyond the assembly line. John, the shipping hand, whisks the full pallet away with his forklift and places a new empty wooden pallet ready to receive the next set of outcomes from the bottling team's labours. The cycle continues.

During the busy vintage season at Winery, the packers would stand at their stations for 20-min shifts and then rotate to another station performing different functions (for occupational health and safety reasons). The Production Manager told me that during a busy workday (such as the one I observed), they would bottle approximately 13,000 l of wine.

While the ethnographic field note provides a richer, localised sense of bodily interactions in one part of Winery operations compared to Fig. 5.1's enterprise process view, identifying the rhythmic patterns is limited, the dynamics of practice still opaque. In the next section, I use the rhythmic elements I previously discussed to foreground more clearly the body rhythms present in winemaking practices.

Orchestrating Winemaking Practices: Body Rhythms

If we now re-view the winemaking enterprise from a perspective of interconnected rhythmic elements, this business may be represented as shown in Fig. 5.2.

The relational position of 'current vintage' in Fig. 5.2 shows how timespace considerations are critical to Winery's working practices. The current vintage is an educative tradition inherited from past vintages that will also influence future vintages. Winery's future vintage (unless changed by unanticipated exogenous or endogenous oppositional effects) can be anticipated to be a similar, but not identical, repetitive cycle of actions. It is similar but not identical because future vintage cycles will occur in a different timespace where bodily actions among workers are constructed using different relational geometries and arrangements of work.

The global–local nexus is another relational dimension of Fig. 5.2. Viewed globally from an enterprise level, there is a recognisable progressive sequence to winemaking where grapes are grown, harvested, and then converted to wine through a series of intervening 'value added' steps. However, viewed from a local practice level, body rhythms within each stage 'beat' differently; the experience of embodiment calls upon various parts of working bodies and senses to be foregrounded across the stages of a winemaking enterprise:

- During vineyard work, it is the *visual (sight)* sense and *tactile (touch)* sense of the viticulturist who periodically checks the presence of any diseases during grape growth or the winemaker and viticulturist together in assessing the grapes' readiness for harvest. Most certainly during an intense 2-month harvest season, multiple *musculoskeletal human bodies* are physically, sensorily and achingly

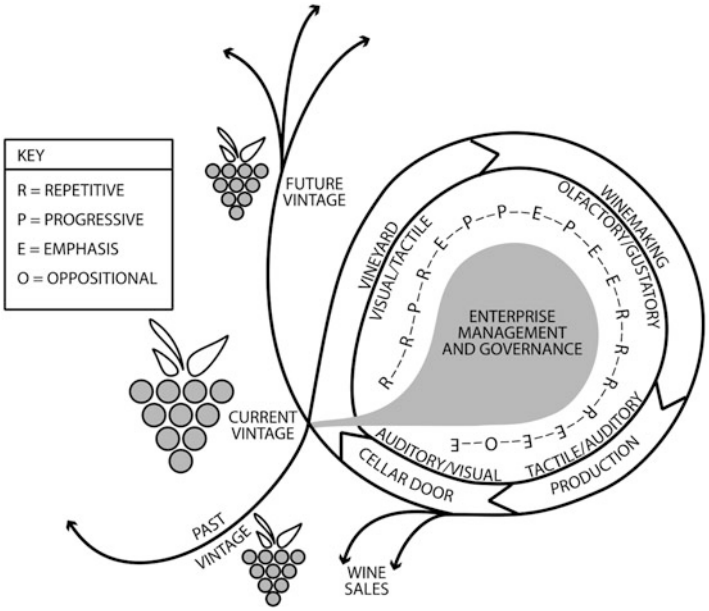

Fig. 5.2 Body rhythms of Winery practices

involved in the tiring manual work of harvesting (picking, loading, sorting, crushing, extracting) the grapes.

- During winemaking, the *olfactory (smell) sense* and the *gustatory (taste)* senses predominate to assist the winemaker's cognitive assessment of how the fermentation process is progressing and what physical and chemical steps must be added to the natural resource of grape juice to produce quality wine.
- Once in the mechanical bottling stage, the *tactile (touch)* sense of the packers predominates supported by *auditory (hearing)* senses to synchronise their human bodies with the mechanical conveyor-belt operation and with the coordinated actions of their co-workers.
- During cellar door sales, combinations of *olfactory (smell), gustatory (taste)* and *visual (sight)* senses relationally connect winery staff to customers. Winery staff and wine customers engage in a relationally-expressive, shared, experiential practice that involves the mutual appreciation of bodily senses mediated through the liquid materiality of wine that may result in wine product sales.

I had the opportunity to interview Nathan after my observation of Winery's bottling operation and discovered during the interview that the packing practice that I observed had actually changed recently. The prevailing practice at the time was to pack 12 bottle (dozen) cases where typically one packer made up the box, put in the dividers and taped the box. But Winery had entered into a contract with a major supermarket that needed wine sold in smaller six-pack cartons. As Nathan reflected:

> Now we're into six packs and we had to add one more person onto the line when we do them cartons because it's a lot faster and you can't keep up so we have the extra person and it keeps the production going which is good.

When I asked Nathan to identify how and why the way workers packed these cartons had changed, he told the story this way:

> Actually it was one of the vineyard staff, they come in and they were helping me out one day and she said, 'how about we do it this way?' Then one person was putting six bottles in, one was putting a divider in and the other one was just pushing them through the taper and it was flowing so beautiful and not one bottle was left behind which was good. It was the vineyard staff who showed me the way [chuckles].
>
> [Researcher]: Did that person just come up with that idea?
>
> Yeah, she was on the line packing for me and she said let's do it this way, this is going to be easier.
>
> [Researcher]: So she was ... experiencing the bottling line?
>
> Yeah, and like different eyes, they pick out different things.
>
> [Researcher]: Why was the vineyard person on the bottling line?
>
> I think I was short a couple of people that day ... Yeah, so it's amazing, if you get a different perspective off different people then it's a really big help.

This progression of actions leading to a permanent change in this particular carton bottling practice is captured analytically through Fig. 5.3.

Using my rhythmic vocabulary, Nathan and his co-workers were executing their regular topographic itinerary, applying proven repetitive and progressive actions to their case packing practices (Fig. 5.3). The smaller cartons with half as many bottles meant the rate of packing activity accelerated, changing the rhythm of the bottling

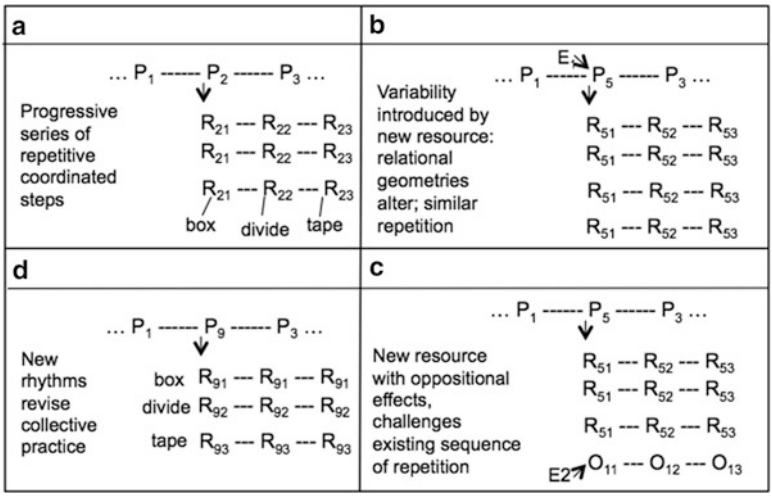

Fig. 5.3 Anatomy of a changing practice. (**a**) packing dozen cases. (**b**) Packing new cartons with extra resource. (**c**) Guest packer challenges existing practice. (**d**) Re-synchronising practice (Key: *R* repetitive, *P* progressive, *E* emphasis, *O* oppositional)

line (e.g. adjusting relational geometries around the bottling line, shorter packing interval of six wine bottles rather than twelve) that changed how the bottling line operated (Fig. 5.3). But in another unplanned workday when Nathan was short of resources, a vineyard staffer came to assist and 'with different eyes' could see an alternative way to perform an operational task, raising oppositional effects that adapted and adjusted bodily actions, materialities and operational processes (Fig. 5.3). As a result of others seeing the benefit of this new way of doing, the bottling line re-synchronises their movements to accommodate the carton practice that I observed (Fig. 5.3).

Two years after I completed my research project at Winery, the impact of the global wine glut (oversupply) affected the Hunter Valley regional economies where Winery is located. Almost half (1,500 out of 3,250 ha) of the region's vine capacity had been forcibly removed over a period of 18 months as part of the national reduction in grape crush production (Page 2011). The General Manager of Winery mentioned that their in-house bottling operation had now become part of a regional shared services arrangement, where operating costs and bottling staff are shared across multiple Hunter Valley wineries. It was one of several work practices that were being re-invented and adapted by the community of wineries to survive through tough economic times.

Yet one feature of Winery life remained irrevocable for the staff there – the focus on the vocation of winemaking and the drive to produce quality wine. The anchoring ethos of *terroir* that has survived generations of winemaking remains intact here as it does for similar aficionados of winemaking life across the world. The rhythms of practice beat on, seductively inviting current and new moving bodies to participate in the rituals and rites that constitute winemaking and wine enterprise practices.

Body Rhythm Implications for Researching Professional Practice

My research at Winery suggests that attending to rhythms can provide a fruitful way to view the patterns created by moving bodies in the practices of work. Instrumental, expressive and sensorial work interactions can be re-viewed in terms of the rhythmic patterns that regulate, progress, emphasise or interrupt routinised ways of everyday working. These relational patterns in timespace engage practitioners in the familiar, shared and collective work of practices, while allowing for the improvisational nature of change at any temporal moment. A focus on body rhythms suggest that our development of professional practice needs to go beyond continuing education on individual competencies to interrogate our collective relational competencies and the learning value of embodied experiences in the sociology of work.

For example, Shilling (2007) identifies the need for new agendas on body pedagogics that could extend Maussian concepts on techniques of the body. He notes:

> While Mauss describes different body techniques and writes about the social, psychological and biological components of these techniques, however, he has little to say about the details of how they are actually *taught* or the *experiences* people go through when acquiring (or failing to acquire) new skills and capacities.
>
> *Body pedagogics* may be defined as referring to the central pedagogic *means* through which a culture seeks to transmit its main corporeal techniques, skills and dispositions, the embodied *experiences* associating with acquiring or failing to acquire these attributes, and the actual embodied *changes* resulting from this process (Shilling 2007, p. 13, emphasis in original).

Crossley (2007) takes on this challenge by making some important methodological suggestions that appear to be a variant of oppositional analysis. He suggests researchers pay attention to dysfunction (or what Lefebvre (2004) identifies as arrhythmia) because 'embodied self-awareness involves dys-appearance' (p. 84). Understanding the role of error, absence or deficit in pedagogic performance is a concept long understood by vocational education researchers in debating the issue of competence-based learning (Hager 2004) or how novices learn to become experts (Dreyfus 2001). But Crossley's comment here is a more nuanced one about paying attention to discordant patterns in the temporalities of practice that may signal points of departure – whether socially determined as erroneous, representing poor performance technique, or potentially forming sources of innovation that allow practitioners to re-view the world in ways that change practice (e.g. at my research site, a guest visitor and not-the-usual packer bodily experiencing the bottling line and suggesting a new way to pack cartons).

As discussed earlier in this chapter, I believe Maussian body techniques have much to offer practice theorists that heretofore has not been taken up. An underlying reason may be due to a small but vital orientation in the terminology. Practice theory has tended to focus on the definitions and conceptualisations of *practice* – aspects like actions (doings), language (sayings), 'relatings' (Kemmis 2009), 'teleo-affective structure' (Schatzki 2002) – that comprise practice. Indeed the practice turn (e.g. Schatzki et al. 2001) provided the impetus for more rigorous articulation of the field of practice-based learning (Hager et al. 2012).

Yet a fundamental aspect of practice demonstrated by the body is the human capability to enact *practical* principles and understandings. As Crossley (2007, pp. 87–88) notes,

> practical principles can only ever be practical; that is, grasped in practice by a being capable of doing so … to study body techniques is to study knowledge and understanding in the only form in which exist: that is, in the form of embodied and practical competence.

In researching practice, researchers attend to how practitioners practically 'do it or not', what form of technique is executed or learned well or corrected by expert others, how organisational protocols or etiquette modify acceptable cultural practice, and how practitioners 'see' and 'read' their world, i.e. what they pay attention to and what matters to them in their subjective meanings.

But the notion of body rhythms adds the significance of relational movements and interactions, giving researchers a richer vocabulary way to understand practice

dynamics and the practitioner bodies that are critical contributors to those dynamics. Body rhythms use the patterns of moving and interacting bodies to potentially highlight:

- how orchestration among multiple others practically works.
- what the interactions between and among moving bodies mean to a group engaged in a shared practice.
- how moving 'in sync or out of sync' affects the performance of the practice.
- how improvisation (that may start as initial or local dissonances) may generate momentum for later global changes to practice.

Conclusion

As I complete this chapter in 2013, I can now go to my local German supermarket in Australia and buy a drinkable bottle of European red wine for $2.49, one-tenth of the average cost of Winery's lowest-priced product.

Yet during my regular visits to Winery in the Hunter Valley, I still witness the same passion and ethos with which I observed Winery staff perform their winemaking dance and practice several years ago. The winemaker I originally interviewed is now running his own winery overseas; the assistant winemaker is now chief winemaker at another Hunter Valley winery. Some of the faces of other workers are the same; many are different. Wine practices are familiarly ritualistic. As a wine customer, I enter into a recognisable winetasting rhythm of asking what the cellar door manager recommends, sequencing my tasting of whites before reds and imbibing samples in gustatory ways I have practised before, following the rhythmic itinerary of appreciating before buying. But the rhythm of bottling operations in Winery's bottling room is now silent, the materials of labels, bottles and cardboard boxes relocated out of sight, and the bottling dance to be danced at another place at another time to a different rhythm of moving bodies.

Whether in or out of researcher view, the polyrhythmic resonances of winemaking practice endure for those who remain committed to their professional practice, even as this particular enterprise charts a different cycle of survival and growth. It is a lesson to consider not only for the sustainability of one's professional practice but for the rhythms of social life in general.

Acknowledgements The empirical fieldwork for the winemaking case study discussed in this chapter was funded by a Discovery grant from the Australian Research Council. I benefited from discussions about the embodied nature of practice with my UTS fieldwork research colleagues, Adjunct Professor Hermine Scheeres and Dr. Oriana Milani Price. Thanks to Dr. Teena Clerke for her graphics expertise.

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