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Behavioural Change and the Temporal Ordering of Eating Practices: A UK–Spain Comparison

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Abstract. Dominant policy approaches to changing behaviour typically address the topic by way of the attitudes, beliefs and intentions of individuals. Their analytic value is compromised by the limited success of policies based upon such an understanding. In light of the expectation that, *inter alia*, mitigation of climate change will require radical changes in food consumption, we make some suggestions about the value of alternative models of behaviour and data sources that focus on the temporal ordering of the practice of eating. We review selectively the social scientific literature on the relationship between time and eating. Following a brief review of theoretical accounts of time and its significance in relation to eating, we reprise the conceptual apparatus for understanding temporality, with its distinctions between duration, sequence, periodicity, tempo and synchronization. The multiple temporalities of eating are examined in relation to empirical evidence, primarily through cross-cultural comparative analysis of Spain and the UK. We argue that detailed empirical attention to time and timings can provide important insights into patterns of food consumption, and that addressing the temporal ordering of practices presents opportunities for achieving substantial shifts in behaviours.

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Introduction

Contemporary forms, and volumes, of consumption in advanced capitalist societies are widely identified as a principal source of many societal problems. Apposite examples include environmental sustainability and food consumption. In the case of the former, the resource intensity of increased volumes of consumption propel the globe towards 'dangerous' levels of human-induced climate change (Munasinghe et al., 2009). In the case of the latter, contemporary patterns of food consumption raise multiple concerns about nutrition and obesity, the destructuring of meals and æsthetic integrity, and food security. And, of course, food consumption is amongst the major contributors to green-house gas emissions, declining biodiversity, and environmental degradation (Lang et al., 2011). That patterns of consumption need to change is not in doubt even if much uncertainty surrounds the precise alternative forms of food consumption necessary. Even less certainty can be found regarding how to change patterns of consumption.

In policy and academic debate, approaches to changing consumption have, increasingly, come to focus on consumer behaviour. According to Whitford (2002, p. 325) such approaches are dominated by the 'portfolio model of the actor', a model in which 'individuals carry a relatively stable and pre-existing set of beliefs and desires from context to context. Given the situation, they select from this portfolio "those elements that seem relevant and [use] them to decide on a course of action"'. Such a model applied to consumption presents the individual as a sovereign consumer. Put broadly, and in a somewhat simplified manner, consumption (or consumer behaviour) is presented as a matter of personal decision-making, usually within the context of commercial markets that respond to (aggregate) consumer demands, and provide the sovereign consumer with many product and life-style choices (Southerton et al., 2004). Within the portfolio model of action, consumer choices are understood to be influenced by individual's values and attitudes. The implications are simple enough, to change behaviour (for example, towards more sustainable forms of consumption) the challenge is to change the attitudes that shape, and values that frame, consumer choices (Shove, 2010).

The underlying philosophies of many policy approaches to sustainable food consumption serve to illustrate the pervasiveness of the portfolio model of action. Macro (societal) level approaches tend to be directed through instruments that affect aggregate consumer demand. This logic is identified by Wirsenius and Hedenus (2010) who distinguish two approaches in their review of environmental policy instruments for changing food consumption. First are command-and-control instruments, which include produce and production performance standards and the regulation of technologies and supply-side systems. Second are price-based instruments, which often take the form of taxes on productivity outputs (produce) and inputs (energy, feedstock, and so on) based on calculations of green-house gas emissions. Such approaches focus as much, if not more, on addressing food production, with patterns of food consumption framed as primarily (if not entirely) responsive to pricing and regulation as consumers respond to market signals and adjust their patterns of consumption in a calculated and rational manner. Where market signals are not heeded, there is a third set of instruments to legislate, regulate or prohibit specified behaviours (Reisch et al., 2010). The difficulties of this latter approach are partly ones of resistance in the light of economic interests, but also of an increasing unwillingness on the part of populations (imbued with an ideology of individual and consumer

freedoms and choice) to accept external, and especially state, authority over apparently private, everyday matters.

Given the salience of the idea of consumer sovereignty, freedom and choice it is not surprising that attention has increasingly come to focus on micro (individual) level behavioural change (Southerton et al., 2011). Perhaps most prominent amongst the policy instruments employed to shift behaviours is social marketing and information campaigns (McKenzie-Mohr, 2000), which hope that individuals will conform to the model of rational actors and see that it would be only sensible to modify their habits and help save the planet. Where this strategy does not seem to work, and it rarely does, recourse is had to trying to increase people's commitment to the tenets of ethical consumption (Vermier and Verbeke, 2006), whether through 'bottom-up' political mobilization (Micheletti, 2003) or through an appeal to the societal responsibilities of 'citizen-consumers' (Spaargaren, 2000). If people held green values tenaciously and deeply enough, then they might be more assiduous in turning into new behavioural commitments their general sympathy for the environment (according to opinion polls hardly anyone wants the planet to burn up). And yet, even where we find apparently pro-environmental values they do not necessarily translate into pro-environmental actions. For example, DEFRA (2008) reports on a range of evidence revealing that the percentage of people's attitudes to pro-environmental consumer behaviours was consistently higher than the percentage of people who took measures to change their behaviour. While some of this discrepancy can be explained by survey respondents not being sure about what steps they could take, the evidence does suggest that the relationship between 'attitudes', 'values' and 'behaviour' is not straightforward. The 'value–action gap' reveals a critical lacuna in policies for behavioural change.

As the critics point out, the 'portfolio model' is not the only plausible way to account for and explain human action. Among the alternatives proffered are so-called theories of practice. Some suggest that we have experienced 'a practice turn' in the last couple of decades (e.g. Schatzki et al., 2001; Reckwitz, 2002), the gist of which is to conceptualize individual action in a rather different fashion; certainly not as sovereign, decision-making, rational actors whose behaviour would be turned around as a result of more information, cheaper pears, more expensive beef, or encouragement to love the earth. Theories of practice shift the foci of analytical attention away from individual attitudes, values and decision-making toward 'blocks' or 'patterns of actions'. For Reckwitz (2002) a critical conceptual distinction can be found between practices as 'entities' and as 'performances'. Practices are configured or shaped as entities (as recognizable, intelligible and describable) by the many elements that comprise the conditions of existence of a practice. While there is no single typology of the elements that configure practices, the most frequently cited are cultural conventions and representations, socio-technical systems, material objects, normative understandings of competent performance, social and economic institutions, and spatial and temporal organization. Such elements both configure how practices are conducted and make them identifiable to practitioners and non-practitioners alike.

In the case of eating, one does not need to be engaged in the practice to recognize that it exists. Elements such as the spatial location, time of day, the material objects employed (e.g. the furniture – or lack of – in the dining room, cutlery and crockery), the food served, cultural conventions of the appropriate sequence of dishes or etiquette of the occasion, and the presence of co-participants are important in distinguishing the practice of eating from other such entities (or blocks and patterns

of action) and between variants of the practice. This is not to deny that individuals affect practices. Practices also exist as performances: it is through the 'doing' of practices that the pattern provided by the practice as entity becomes meaningful and the entity is reproduced and modified. Practice-based approaches can, in many respects, be regarded as 'meso' level analytical constructs. In their focus on practices as entities they identify a range of elements that configure (as macro-level) blocks and patterns of action, while a focus on practices as performances draws attention to the (micro-level) production and reproduction of the 'doings' of daily life.

This article takes one, fundamental, element of the practice of eating in order to explore the capacity of practice-based approaches to advance understandings of food consumption. By focusing on the temporalities of food consumption, it is suggested that time configures the practice of eating in multiple ways. Understanding 'configuration' offers alternative insights into the mechanisms of social change over and above changing the attitudes and values of millions of consumers. We begin with a broad introduction to theoretical accounts of time and temporality, illustrated by examples from food consumption. This is followed by a brief discussion of the potential of time-use studies for shedding light on the temporalities of eating, and illustrated through an empirical comparison of the temporal rhythms of eating practices in the UK and Spain. From a relatively rudimentary analysis, clear differences between the two countries are revealed in the temporal ordering and resultant patterns of food consumption. Systematic analyses of the temporalities of eating practices draw attention to, and explicate, the relationship between personal and institutional timings of daily activity, which includes rhythms, routines and the challenge of co-ordinating food consumption (in terms of provisioning, cooking and eating, and of commensality). This is an approach that views food consumption as a function of temporal ordering, a greater understanding of which is required to identify potential pressure points for reconfiguring the trajectories of eating practices.

Eating, Time and Social Organization

It is remarkable how little attention has been given to 'time' in relation to food, and theories of human behaviour more generally, for it is a principal feature of the practices of food provisioning, shopping and eating. Where time has been considered a valuable concept through which to understand the practice of eating, its application has centred upon a narrow range of topics, mostly of perceived social problems in the temporal ordering of eating, like family meals (Cheng et al., 2007) and domestic divisions of labour around food preparation (Sullivan, 1997). In order to begin an exploration of the relationship between temporalities and eating practices, it is first necessary to consider briefly some insights from theoretical accounts of time. To capture the range, three themes will be discussed: social time, economies of time and temporal rhythms.

Social Time

When the word time is discussed it is usually associated with 'Newtonian' time. For Newton, time is the measurement of motion, and this idea of it being a unit of measurement underpins 'clocks' and the contemporary notion that durations of seconds, minutes and hours are resources to be distributed efficiently and effectively.

However, classical accounts of time in the social sciences begin with the premise that time in human societies is socially (not mechanically) constructed. Durkheim (1961 [1915]) argued that only humans have a sense of time that is abstract and impersonal. Describing modern societies, Durkheim discussed how the rhythms of social life are the basis for the idea of time itself. Social understandings of time emerge from the regularity of events such as 'market day', 'festivals', and 'rites', and the timings of daily activities such as eating and working. Social events mark the temporal rhythms of society and our collective understandings of the passage of time: of past times, present times and future times. Elias (1992) formulated this as 'social time'; because time is understood and experienced through the intervals that derive from collective social activities. The category of time is a social institution: our ideas and understandings of time are inherently social.

The consumption of food illustrates Durkheim's argument well. Eating has long been pivotal to the scheduling of time. Zerubavel's (1981) account of Benedictine monasteries presents a socio-historical analysis of the scheduling of social time, a convention that came to be institutionalized through calendars in various guises. The medieval Benedictine 'table of hours' (*horarium*) illustrates the detail of scheduling with rules concerning the temporal ordering of activities for seasons, months, weeks, particular days and by the hour. What to eat, when to eat it, and the length of time devoted to each event was scheduled and institutionalized. And, it was not only monks who obeyed. By the fourteenth century, the English church had prohibited the eating of animals on Wednesdays, Fridays and Saturdays, and throughout Lent and Advent, which amounted to roughly half the year (Mortimor, 2009). As Zerubavel (1981, p. 30) states: 'Benedictine monasteries… constituted the original model for all modern Western schedules'.

There are many instances of the continuing temporal institutionalization of eating. People spend more or less time depending upon whether it is a feast-day or a fast-day (Sutton, 2001), a weekday or a weekend (Mestdag, 2005), a work-day or a holiday. Christmas is a time for feasting, the new year one for dieting. Also meals continue to punctuate temporal cycles. Whether they are as strong a marker of time passing (a *Zeitgeber*) as in the past is questionable (see Mestdag, 2007). However, aspects of economic order remain organized around tea-breaks and meal-breaks, causes of so many industrial disputes, and daily routines entail collectively observed meal times, if in some countries more than others. Examples such as these indicate that social times (the collective ordering of events and practices) represent forms of institutionalized conventions. Social times institutionalize eating behaviour: when, what, where and how to eat; and if intentions and attitudes matter, they do so because they illustrate the normative salience of institutionalized times. By the same logic, identifying, analysing and understanding how the social times of eating change and vary (across space and cultural groups) reveals the critical contexts through which eating behaviours are ordered and experienced.

Economies of Time

Social time refers to the significance of collective timings. However, time can also be understood as a resource to be allocated across social and economic activity. This is the starting point for E.P. Thompson's (1967) classic account of the changing relations between time, economy and society during modernity. Critical for Thompson is the process through which time was commodified. As economic activity shifted

toward factories, time increasingly came to be understood as a resource to be utilized efficiently in production. Seen this way, time became a resource to be spent, sold and saved. Not only fundamental to the development of industrial systems of production, time was also the source of 'time discipline' as all forms of everyday activity came to be regulated by the clock.

Thompson's account is essentially one of rationalization. Coupled with the Protestant ethic of productive activity, efficient temporal organization and not wasting time has become internalized, described by Thompson as the 'inward notion of clock time', within Western societies. To illustrate, contrast the (clock) time discipline described by Thompson with that of the Algerian Kabyle, where social times were dictated by natural rhythms; meal times determined by the rhythms of labour rather than collectively prescribed parts of the day, and clock-time was regarded as the 'Devil's mill' (Bourdieu, 1963). Economies of time, nevertheless, remain dominant in Western societies with working time and its rationalization pivotal to the organization of temporal rhythms (Rotenberg, 1981). As Hochshild (1997) argues, a defining feature of the post-war period is that economies of time have spread from the logic of the work-place to the home. First, domestic technologies subject household organization to the principles of economic efficiency. Second, economies of time invade interpersonal relationships where couples, parents and children increasingly need to schedule and rationalize time to spend together.

Shifts in economic organization re-institutionalize social times. Take the move from Fordist to post-Fordist modes of economic organization as an example. Garhammer (1995) describes a major shift towards 'flexibilization' whereby times of work, shopping, banking and eating out are increasingly deregulated and scattered. The consequent tendency is for a temporal shift from 'nine-to-five, Monday to Friday' to the '24-hour society'. Many food-related anxieties are explicitly related to flexible economies of time. It is often remarked that scattered working hours result in the shared timing of meals breaking down. An epidemic of 'snacking' (a phenomenon identified by the brief time taken to eat and the frequency of its occurrence) was diagnosed throughout Europe a few years ago. In some countries, this was thought to be accompanied by declining frequency of meals taken with family members. The implication is clear: as the collective ordering of social times is undermined by the increasingly scattered (flexible) patterns of individual time use, the co-ordination of daily practices with significant others becomes more difficult (Southerton, 2003), and collective patterns of eating are torn asunder.

A second and related process relates to food preparation and the growing prevalence of convenience foods of various types. As time economies become fragmented and food practices individualized, pre-prepared meals that can be consumed individually as and when household members require become more appealing (Warde, 1999).

Anxieties such as these revolve around a changing role for meals, and implicitly presume the decline of the meal as a marker of social order, as a *Zeitgeber*. They predict change for the worse. Yet the empirical information necessary to judge their prevalence is generally wanting. There is also a good deal of conceptual confusion about what exactly the problem is. A rare comparative study, of the Nordic countries in the late 1990s (see Kjaernes, 2001; Kjaernes et al., 2009), did not rule out a growth in flexibility in the scheduling of eating events, but did demonstrate the existence of powerful rhythms and regularities (i.e. institutionalized social times), shared across different national populations, including an association between spe-

cific meal occasions and food intake. Not only were the patterns significantly different in the four countries examined, but it seemed that flexibility meant not the disappearance of routines for individuals, but that those routines had become more differentiated across populations. The variation was not strongly associated with socio-demographic characteristics, however; for instance, people living alone were no more eccentric or de-routinized than those in family households. Kjaernes et al. suggested that de-routinization was to a significant degree imposed externally, by obligations of work or leisure pursuits, rather than a change in ideals about proper meals. Something similar has been shown for France (Herpin, 1989; Poulain, 2002).

There are many strong theoretical grounds to draw associations between macro-shifts in economies of time and changes in eating practices. The limited empirical analysis of such macro-processes reveal, however, that post-Fordist economies of time do not necessarily undermine collective temporal rhythms but reinstitute social times of eating.

Temporal Rhythms

To say that time is constructed and understood through the events that collectively mark it and the economic organization of daily life is to recognize that the temporal rhythms of any practice or activity are more than a consequence of attitudes and behaviours. Eating events punctuate activities – daily, weekly and annually – such that they establish routines and rhythms. Put strongly, such temporal rhythms have often dictated that individuals make the same decisions (or choices) about eating at more-or-less identical times. Anxieties surface with the erosion of temporal rhythms.

In some cases the effect of temporal rhythms is clear: many people still are forced to eat at particular times – in institutions of many kinds, including work-places, schools, military establishments, hospitals and residential accommodation. Viewed from such settings, it is something of a privilege to be able to choose at what time to eat.

More generally, temporal rhythms order and organize meal content, such that eating soup for desert or roast beef for breakfast is regarded as eccentric. As social times and economies of time suggest, the temporal patterning of eating behaviours is neither arbitrary nor universal. Different countries, cultures and groups have different and changing institutionalized ways of organizing meals. Lunch is particularly interesting; for while the British have very fragmented patterns, the French have developed a new form of eating in which the canteen associated with the work-place is a major source of midday-meals, and thus of some regularity and discipline, while the Spanish still have long lunch-breaks and have relatively little need for work-place provided meals (they can go home or eat in a more leisurely fashion in a restaurant). These raise issues of both time and space, and indicate the value of further exploring the temporal rhythms of food consumption in a systematic and rigorous way.

The Potential of Time-use Studies for Understanding the Social Organization of Eating Practices

Time-use studies are a valuable but neglected resource for dealing with these issues and, particularly, the important question of how these processes vary between

countries. More sophisticated analysis allows for understanding of what people do, where they do it, the sequences within which they do it, whether they do it simultaneously with other activities, and whether they do it with other people. Time-diary data also provide micro-level detailed evidence of eating patterns in terms of shifts in location (home, work, friends homes, restaurants), whether eating events occur after or during work (one consequence of flexible work could be scattered hours of eating) and so on. Revelation of such details opens new lines of enquiry for understanding eating behaviours without recourse solely to individual intentions and actions.

Time-diary surveys record the primary activities of respondents during time slots of specific duration (usually 10, 15 or 30 minutes duration) over 24 hours for two or more days. Studies have been conducted since the 1930s and they cover many countries at different dates. While recognizing the variability of the experience of the passing of time, its units are quantifiable and directly comparable. The pattern of time-use is a potential short cut, proxy for, or indicator of a key dimension of practices as entities (or blocks and patterns of action). Furthermore, time-use reflects social interdependences between practices and people, because for many practical purposes interaction has to be co-ordinated spatio-temporally. Shifting allocations of practices within time and their temporal ordering, then, reveal changing social norms and cultural understandings about competent performance of practices, and suggest how socio-economic constraints might lead social groups to organize those practices differently (Southerton, 2009a).

Most analyses of time-diary data have focused on durations of activity, particularly revealing the macro socio-temporal organization of daily life; shifting distributions of time across common categories of activity tell us much about patterns of consumption, economic activity and welfare, and because it is comparable across societies it highlights institutional variations (Gershuny, 2000). This is the case particularly with food consumption, where durations of time spent on the activity of eating per day or per meal is particularly revealing of socio-cultural variations in the practice (Warde et al., 2007). Duration is, however, but one key dimension of temporality. Fine (1990) identifies four additional dimensions: sequence, tempo, periodicity (or frequency) and synchronization.

All four can be identified relatively easily through observations of the practice of eating. *Tempo*, for example, can be found in different types of meal event, being relatively fast when eating alone or in a fast-food establishment as compared with slow and leisurely when eating as a group at a conventional restaurant. The *periodicity* with which one eats is often as problematic as the nutritional content of the food: hence eating many small meals per day (i.e. snacks) as opposed to two or three prepared meals is widely regarded as unhealthy. Periodicity can also be identified where certain foods are associated with particular times of the day and mark the passing of periods of time (breakfast–lunch–dinner), although the order and timing (i.e. *sequence*) of such meals is neither consistent across cultures nor over time. Routine also implies sequence, for it is not merely the passage of time but patterns of succession, whether soup before pudding, cooking before eating or work before lunch, which matter. *Synchronization* is perhaps the most intriguing as it entails not only the co-ordination of people but also of practices. Whether eating is synchronized to occur with other people present has some bearing on the form and experience of the practice and eating is usually synchronized with other practices such as social events and rhythms of work. The critical point is that duration, frequency,

regularity and speed of eating are all functions of time allocation (Southerton, 2006). The ordering of meals, the relationship between certain foods, rituals and norms surrounding the activity are related to timing. And, the resultant rhythms of eating in all societies form temporalities that represent the patterned performances of the practice (practice as entity) and configure what and how we eat (practice as performance).

Eating Time in Europe: Some Evidence

In this section we review material that describes and discusses the significance of: time spent eating; rhythms and routines; commensality and synchronicity; and the sequencing of meals within daily schedules. A comparison between Britain and Spain is included in order to highlight the significance of institutional variations to the practice of eating. In doing so, the temporal ordering of eating practices (as both entities and performances) is revealed as a principal feature of the configuration of the practice (or behaviour).

Time Spent Eating: International Variation

Many studies are devoted to the duration of eating events, which are important because shifts over time, variations across space, and differences across social groups (especially in relation to gender) are instructive about the changing patterns, social relations and provisioning of food consumption. A study published by the European Communities (2004) reveals that women devote more time to cooking and less to eating then do men. There are considerable variations by country. Women in Hungary spend 87 minutes per day in food preparation compared to 49 in Denmark, while Hungarian men spend only 14 minutes compared to British men's 27. The French spend almost three hours a day eating while the Finnish, Slovenian, Estonian and British spend barely two.*

Warde et al. (2007) calculated the mean amount of time spent by respondents aged between 20 and 59 in five countries (France, Netherlands, Norway, UK, USA) in the 1970s and at the turn of the century. Except in France, the amount of time spent eating has, on average, reduced. People in France were eating at home for longer than those in the other countries in the 1970s and, since the amount of time remained constant (at just over one and a half hours), they were spending much more time than the others by 1998 on account of increased time spent eating out. Reduction of time eating at home was less in the Netherlands than for the rest of Europe, amounting to a little over an hour in 1995, while the Norwegians and the British were spending less than an hour and the Americans less than three quarters of an hour. It is clear that domestic meals were already taking much less time in the USA in 1975 than in Europe, and that the amount of time reduced further in the subsequent decades.

Change in mean duration alone tells us little about whether people are eating more or less food, eating faster or slower, or with a greater or lower frequency. Reduced durations might be a consequence of faster eating, perhaps indicative of fast foods, snacking and more individualized eating, or of a lower frequency of eating events, such as the dropping of lunch or breakfast. The other four temporal dimensions are required to fully understand the significance of changing durations. Nevertheless, while crude, comparing durations is still revealing about institutional variations that

shape contexts of eating. Attitudinal evidence is not required to demonstrate that the temporal organization of eating in France leads to very different behaviours than are found in the Nordic countries.

Rhythms and Routines

Rhythms and routines of eating are shaped by many social, material, economic and cultural factors. Analysing diaries from the 1930s, Southerton (2009b) showed that the timing of meals in inter-war Britain was largely a consequence of the rhythms of work (economies of time), the main meal of the day being taken at lunch-time with one or two 'suppers' in the late afternoon and evening. Such rhythms and routines played an important role in determining what people ate. Dinner on Mondays predominantly consisted of stews comprised of the 'left-overs' from a Sunday roast. Monday was also wash day (of both clothes and bodies). This configuration of practices was not arbitrary: while the oven was lit to make the stew it was also available to heat the water necessary for washing clothes and preparing baths. This made kitchens hot – ideal for drying clothes should it be raining outside and for keeping bodies warm as they entered and exited the bath tub. While a simple story, the point is clear: temporal rhythms emerge from a number of contextual factors and configure the social norms surrounding when and what people eat.

In a contemporary, qualitative, Danish study, Kristensen and Holm (2006) show that routines directly affect not only types of food consumed, but even the feeling of being satisfied. Danes, like many people in other countries, have strong ideals regarding how best to eat, with social prescriptions entailing firm routines. When usual behaviour is disrupted they may adopt many strategies for adaptation and accommodation, if sometimes grudgingly. One telling example was of a single woman who, when required to eat dinner later than normal on the day of the interview, said that her appetite responds such that she will not feel hungry until immediately before the appointed time for her meal. She said,

> 'I know that I am going out to eat later this evening. So I have prepared myself not to be hungry right now. If I was alone, however, I might have felt hunger. I probably would have considered going to the kitchen and making myself some food then, and also felt the appetite to do so. But I don't feel like that now, I have prepared myself not to eat over the next three hours or so… so, I feel okay about it' (Kristensen and Holm, 2006, p. 164).

A powerful example of the inseparability of mind and body, her account both indicates the strength of a cultural template for regular meal times in Denmark and the capacity to reorder routines in response to unexpected or unusual situations. Kristensen and Holm show, in addition, that having personal control over time-schedules is generally bad for dietary well-being. Those who take lunch with colleagues in the canteen are more likely to eat healthily than those who eat alone at times that they personally determine. This is not simply an example of the importance of co-participation in the eating of meals affecting diet, but of the critical importance of temporal co-ordination in shaping the performance of eating practices. Moreover, as revealed by Southerton (2003), the challenge of temporal co-ordination is less a matter of control over personal schedules and more a consequence of the changing temporal organization of daily life.

The report of Kristensen and Holm makes perfect sense in the light of qualitative evidence about the organization and meaningfulness of food events. What people eat depends upon their definition of the meal occasion. There is no biological, geographical or commercial explanation as to why, for instance, Danes and Norwegians eat cold lunches while Swedes and Finns eat hot food in the middle of the day (Kjaernes et al., 2001). Rather, it would seem that there are powerful conventions, nationally variable, which associate particular foods with temporally (and spatially) defined eating events. Situations regulate intake, partly because subjective norms – an individual's understanding of the expectations of others – come into operation. What qualitative studies do not necessarily do, however, is to account for the generality of the practices for which they have personal testimony, which is why there is great potential in determining the extent to which routines, rhythms and coincident time paths underpin dietary habits of larger social groups and categories.

A very basic analysis of the timing of eating events in the UK and Spain provides a sketch of that potential. Figure 1 shows the percentages of people eating or drinking as a main activity between half past six in the morning and one o'clock at night. Breakfast times in both countries share a certain synchronicity, but for the rest of the day patterns of eating times vary significantly. The British appear to spread meals through the day, while Spaniards concentrate them between half past one and four o'clock in the afternoon (lunch) and between eight and eleven o'clock in the evening (dinner). In the Spanish case this makes for important peaks of individuals eating at the same time (in the periods 2.00–2.30 p.m. and 9.00–9.30 p.m.), peaks that are not clearly defined in the UK.

People in Spain have fixed meal-times. Meals continue to function as a collective *Zeitgeber*. Eating divides the day into clear parts: working time before lunch, a long break for lunch, working time after lunch, and time after work to rest and eat at the

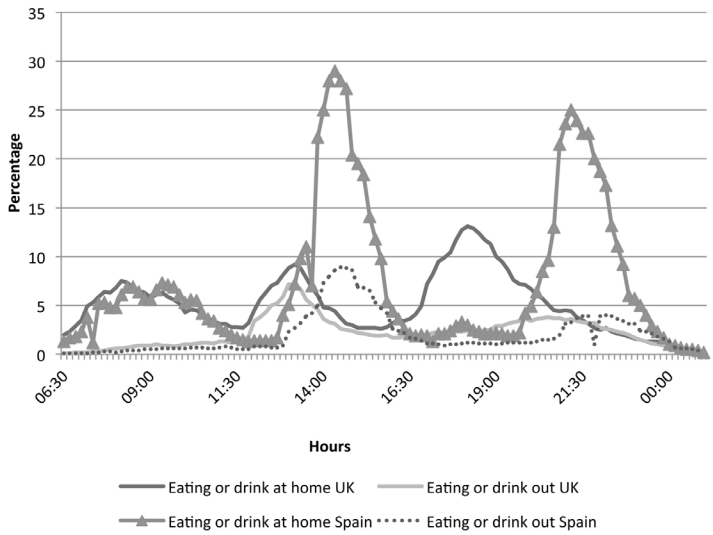

Figure 1. Population percentage (16–65) eating throughout the day (at home and out).

Source: Own elaboration from the United Kingdom Time Use Survey, 2000 and Encuesta Nacional de Uso del Tiempo en 2002.

end of the day. People mostly return home for lunch at midday and for dinner at the end of the working day. There is a clear correlation between economies of time based around routine working hours and social times based around the collective timings of eating events. This contrasts with the UK, which shows a flatter line with far less pronounced peaks for participation at particular times and relatively shorter periods for lunch (12.00–2.00 p.m.) and dinner (5.00–8.00 p.m.).

Whereas in Spain about 40% of the population were eating at 2.50 in the afternoon, and about 30% at 9.30 in the evening, in Britain at no time of the day were so many as 20% of the population so engaged. Whether individuals have fixed routines in Britain is not clear, but meal timing is a much weaker *collective Zeitgeber*. The detail can be inspected in Figure 2, concerning eating at home. In Spain eating peaks strongly around lunch and dinner, with comparatively little eating other than at main meals (breakfast is taken between 9 and 10.30 and there is less of a pronounced pattern). In Britain there are peaks at earlier points during the day, but the trajectory of the graph is much flatter, with peaks depressed and more frequent eating at home

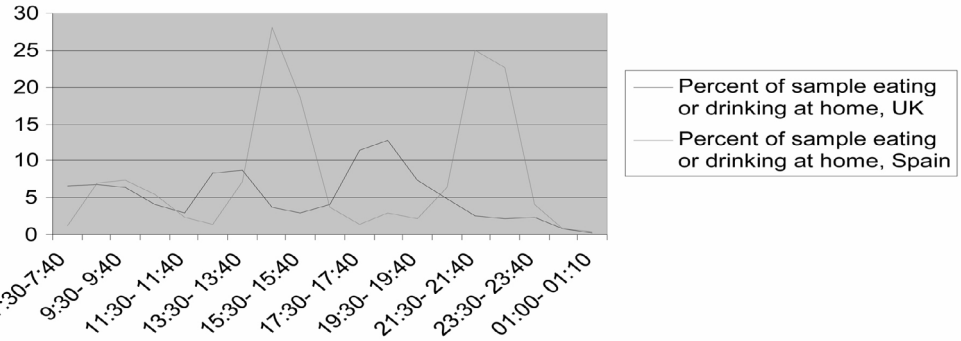

Figure 2. Comparison between Spain (2002) and UK (2000): eating or drinking at home.
Source: Own elaboration from the United Kingdom Time Use Survey, 2000 and Encuesta Nacional de Uso del Tiempo en 2002.

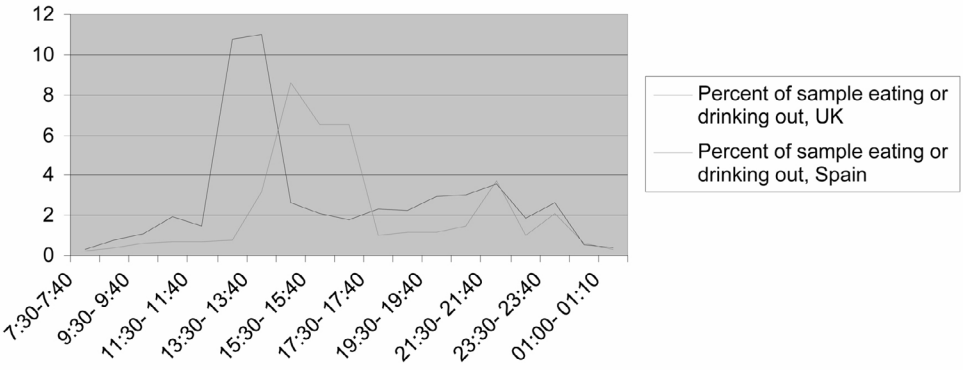

Figure 3. Comparison between Spain (2002) and UK (2000): eating or drinking out.
Source: Own elaboration from the United Kingdom Time Use Survey, 2000 and Encuesta Nacional de Uso del Tiempo en 2002.

during working hours. We are much less certain about the reliability of the data for making comparisons about eating and drinking away from home, due to cultural variations in the interpretation of what constitutes eating out in the two countries, but it would seem from Figure 3 that Britons spend more time in these activities and there is a pronounced peak between 12.00 and 1.00 p.m.

From a brief examination of the basic rhythms of eating in Spain and Britain, it is clear that institutional differences in each country result in quite different eating routines, even though lunch and dinner punctuate the day in both. This is partly a consequence of different economies of time; Britain has more employment in the service industries with scattered working hours undermining the collective timing of eating events. Viewed this way, temporal rhythms clearly demarcate the practice of eating as an entity, shaping the different cultural understandings and social organisation of food consumption in the two countries (with lunch and dinner being quite different practices in each), and affecting the ways in which those practices are performed. This is not a matter of attitudes and values but of the temporal ordering and framing of the practice.

Periodicity and Synchronicity: Commensality

A further application of time data describes how and whether the activity is synchronized with other people and other activities. One of the most important social features of meals is that they give opportunities for sociability. With whom one dines is enormously significant in indicating the centrality of people in one's life. Companions at meals separate family from friends, friends from strangers, etc. The family meal has often been thought especially important for emotional and affective reasons, as well as for practical aspects of adequate nutrition. In many western countries the decline of the family meal is predicted, with dire consequences for social and familial relationships. In Britain there are regular political and popular moral panics, and equally frequent rebuttals by academics (for a discussion, see Murcott, 1997). Because time diaries almost always ask where an activity took place and with whom, there is an opportunity to examine synchronization of household member schedules around family meals.

Occasional and *ad hoc* survey data suggest that while the whole family taking its main meal together in the UK is still (just) the norm, it occurs perhaps once a week less often than in the 1970s (Cheng et al., 2007). The situation is almost certainly different in Spain. The simple evidence of large numbers of people returning home for lunch and similar proportions of the population also eating dinner at home implies that the family meal is still intact. Indeed, Spain is one country where there is no scare about the demise of the family meal. Qualitative research also supports the hypothesis of the continued relevance of Spanish family meals. The Spanish make greater organizational efforts to make possible that all household members can eat lunch or dinner together. Sometimes this means delaying or advancing the mealtime and awaiting the arrival home of family members from work or school (Díaz-Méndez, 2005). The institutionalized convention of eating together offers a persuasive explanation for the longer duration of main meals in Spain.

This suggests interdependence between duration, periodicity and synchronicity, and that the synchronization of time–space paths is a critical issue for eating. The meal depends upon getting the right people together at the same table, and it would appear that this is more easily done if meals occur for most of the population at the

same time. There is then less interference with the possibility of eating together. The more often, by contrast, people feel the need to eat at unpredictable times, or their other obligations prevent them from synchronizing their activities with others in their households, the less easy it is to organize commensality. Moreover, since meals eaten with others usually take longer than those eaten alone, synchronicity is relevant to duration. The contexts of eating behaviour that inform and shape attitudes can be uncovered through systematic empirical analysis of social times, economies of time and temporal rhythms.

Sequencing

Synchronization is not only a matter of co-ordination amongst people but also one of fitting together multiple activities and practices. There is a clear, prevalent and easily understandable sequential relationship between cooking and eating, although the advent of freezers and microwaves do allow for some shifting in the timings of those sequences (Shove and Southerton, 2000). Indeed, a strong indicator of the breakdown of the proper meal would be accelerated desynchronization of food-related practices. Analyses of sequences can identify patterns of synchronization and permit empirical interrogation of claims surrounding the fragmentation of collective eating. Mestdag (2007), in her study of meal destructuration in Belgium, presents a powerful, if preliminary, indication of the potential explanatory value of studying the succession of activities surrounding eating. Sequence analysis provides a means to generate typologies of eating behaviour, incorporating its temporal, spatial and social characteristics. So, for example, some people experience a hurried breakfast because of the early hour at which they set out for work, while others record a relaxed event often much later in the morning. The rhythms of preparation for an evening meal, and also the duration of it, depend upon whether other household tasks are to be completed in addition.

Sequence analysis of time diary data is increasing in technical sophistication, with the potential to reveal much about the contextual conditioning of eating behaviours. For example, that fewer women are engaged in paid work in Spain than the UK presents a possible explanation for the apparent greater persistence of family meals in that country, because cooking a meal for the entire household is more likely to be sequentially possible. By contrast, one would expect to see sequential disjuncture between the practices of cooking for the family (as opposed to reheating) and eating in the UK. In addition to revealing the temporal ordering of food practices, sequence analysis also has the potential to explain how practices fit together. For instance, under what conditions does snacking occur, do evening meals always signal the end of the working-day, and with what implications for culinary cultures?

Analytical focus on sequences acknowledges that temporal rhythms are a fundamental context in which behaviour occurs, is understood and is conditioned. Analysing the sequence of practices unpacks those rhythms to reveal institutionalized conventions and their variations across space and culture, and over time. Sequences are instructive about the duration, tempo, periodicity and synchronicity of everyday practices because they underpin the temporal co-ordination of daily life. In one way or another, most contemporary anxieties surrounding eating, whether related to its fragmentation or individualization, its nutritional deficiencies or its social destructuration, are concerns about its sequential co-ordination with other people and practices.

Discussion

Time is one principal co-ordinate of social practices. The temporal aspects of eating cannot be reduced to individual intentions or attitudes, but rather point to the need for mutual co-ordination of human activities. Social time refers to the institutionalization of cultural conventions that frame practices. Economies of time highlight how our understandings of time and its organization are subject to macro-processes of change, which result in shifting temporal parameters for the co-ordination of practices. The resultant temporal rhythms shape the contexts in which individual behaviour is located, interpreted and experienced.

Time-use studies unearth details of what people do, about how practices are performed and patterned as entities, and provide some indications as to how those practices are configured and ordered. Our brief analysis of time diary data identifies a number of insights not accountable in terms of personal decisions and preferences. There are clear national differences in patterns of eating that result from institutional variations. Routines and rhythms of eating in Spain are more predictable than in the UK; although eating patterns in Britain are by no means as disorderly as is popularly imagined. Even the most basic analysis demonstrates that eating is ordered along axes of time and space and that eating practices are subject to temporal routines.

The time-use data presented here provide evidence that many people engage in the same activity at the same time. Examination of the pattern for a population (whether that be a group, say women, or for a country), particularly examining what proportion of the population are doing what and when, gives us access to issues of synchronization, which may be interpreted either as subjective norm or structural constraint. Societies do things differently, and in some societies we can safely postulate that meals are more of a collective *Zeitgeber* than in others.

Changes in the timing and co-ordination of meals also indicate a relationship between norms, shifting economies of time and social time. Thus, in addition to revealing change, comparative analysis demonstrates the varying situational constraints faced by different cultures or groups. This is because the allocation of time to any practice reflects a structural parameter to action: whether that is related to changing institutional configurations of working hours, or a matter of the timing and sequence of collectively shared practices, is an empirical question. Thus, strategic use of time depends on the configuration of all five temporal dimensions. One can do things faster; do more than one thing at a time; make appointments; spend shorter periods (intensification); do something less often; produce a more efficient sequence; and seek to synchronize or desynchronize certain practices and people. Change over time and variations across space in the allocation of time reflect the contexts in which practices are performed and constrained.

By examining food consumption in terms of eating practices, analytical attention is pulled away from the portfolio model of action – from the attitudes and values of sovereign individuals – and toward the temporal organization of daily life, social relations and cultural norms, socio-technical systems and infrastructures, and institutions. In this article, attention has focused primarily on temporal organization, although the interdependencies between this and other elements that configure eating practices have been alluded to. Such an analysis suggests that changing eating behaviours, whether in order to address health, sustainability or other societal 'problems', requires looking beyond the portfolio model of action and paying closer attention to the interdependent elements that configure eating practices.

We have argued that temporalities are particularly powerful in this respect. On the one hand, temporal dimensions in the form of duration, periodicity, sequence, tempo and synchronization represent readily identifiable features of the practice as an entity. This is reflected in the patterns revealed by analysis of time diary data. This is more than mere observation. Features of the patterning of the practice also frame cultural meanings and understandings of the practice itself, hence narratives of declining family meals being less prominent in Spain. On the other hand, the performance of those practices reproduces the practice as entity, and in doing so plays some not insignificant role in reproducing the temporal ordering of the practice. For it is only through relatively large proportions of the Spanish population performing the practice of eating lunch at particular times of the day and for certain durations, particular tempos, within sequences and synchronized with others that the practice can exist in its current form.

Understanding human action as configured through practices as entities and reproduced through practices as performance undermines the core theoretical basis of the portfolio model of action. If a critical challenge confronting contemporary societies is to change consumption and (consumer) behaviour, then targeting the attitudes, values and consumption decisions of sovereign individuals appears a particularly myopic approach. Indeed, the arguments presented here suggest that attitudes, values and consumer decisions are framed and tempered by practices – to change attitudes and behaviours even from within the portfolio model of action would first necessitate addressing the relationship between practices as entities and performances.

This raises one final set of issues, which is how to change practices. To some extent this is an empirical question – research into the ordering and performance of practices is required, and time-use studies offer one set of empirical and conceptual tools for this task. This article has focused on one element (temporalities) of the ordering of eating practices. From a relatively brief analysis, and returning to an earlier example of how the portfolio model of action has been translated into instruments for behaviour change in the substantive areas of sustainable food consumption, we can provide little more than general indications as to how such an analysis can feed into policies for changing practices. The first is that instruments for changing eating practices should take seriously the interrelated temporalities of related practices. This might include the timing of meals by addressing the temporalities of working times, should the target be to encourage people to eat at collectively defined times (which, with respect to sustainability could have benefits of scale regarding the provision of food, although this could exacerbate 'peak time' loads within energy and transport infrastructures). The sequential ordering of food provisioning (e.g. shopping, storing, cooking and eating food) in relation to broader everyday temporal rhythms could also be considered if the target is to encourage local sourcing of food, less use of frozen storage, and reducing domestic food waste. Such ideas are speculative; however, the critical point is that attention to the temporal ordering of practices – across multiple and interdependent dimensions of temporalities – shifts policy orientation away from persuading, influencing and encouraging attitudinal change in the hope that millions of people will simultaneously change their behaviours, and toward a focus on how daily practices are co-ordinated and ordered within collective daily life.

Note

* Note that time spent eating is unhelpfully categorized with personal care, but other evidence (Cheng et al., 2007) suggests that the variance is due to time spent eating.

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