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‘There is no time’: agri-food internal migrant workers in Morocco’s tomato industry

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Highlights

- EP Thompson’s theory of time and work-discipline is developed to include social reproductive time.
- In Morocco, tomatoes are produced intensively by internal migrant workers for the out of season market in the Global North.
- Agri-food workers simultaneously face time pressures from industry, from nature and from the social reproductive sphere.
- Women workers form the majority of the labour force and are disproportionately affected by time pressures.
- A connection is established between retailer ‘demands’ and time pressures experienced by workers.

Abstract

Agri-industrial production is supported by the agriculture–migration nexus, in which industrial-scale horticultural production relies on migrant workers. In this article I consider the time-related pressures on workers who are internal migrants from rural regions of Morocco. My account illustrates how workers are impacted by the demands from consumers for *fresh* food, year round, as well as by the rhythms of nature, and of social reproduction. I use concepts from EP Thompson’s depiction of the transition from rural to factory work to describe the tensions in agricultural production at industrial scale for foreign markets. The concepts used are *nature’s time* (related to seasonality, weather, daylight) and *industrial time* (of the market), and I adjoin to this the category of *social-reproductive time* in order to show these three time-related pressures function together. The identification of this threefold time-pressure on migrant workers in agri-food production builds on the recent attention of scholars to seasonality as a conceptual lens, and the identification of rhythms to highlight intersectional inequalities in the everyday. The paper is based on ethnographic and interview data from the Moroccan region of Chtouka Aït Baha, from which tomatoes and other crops are produced at industrial scale for export. I find that, together, the three temporal pressures lead to workers suffering exhaustion and finding themselves far from mobile and available to move with the seasons; rather, they are ‘locked in’ to this low-wage sector.

Keywords: time, work, internal migrants, seasonal agriculture, Morocco, tomatoes

1. Introduction

A recent advertisement from the UK's largest foods retailer, Tesco, places on the sides of its delivery vehicles pictures of tomatoes, strawberries, or asparagus with the phrase 'Freshly clicked'. This is ironic because 'clicked' is a play on words of the term 'picked', thereby shifting the focus from workers picking fruit to the action of a consumer or machine that 'clicks'. The caption therefore has the effect of further obscuring workers from the imaginary of consumers who are asked to associate the fresh tomato¹ with an automated rather than a human action. Whilst the harvesting of some food crops is mechanised, this is predominantly not the case for unprocessed tomatoes, strawberries and asparagus which are carefully picked to remain intact for consumers hundreds of miles away.

'There is no time' is a phrase that was repeated over and over to me, as seasonal workers in Morocco's tomato industry discussed the challenges of their working lives. Yet, it is also not true all the time. Sometimes, there is too much time, specifically in the summer. In the summer, there is, as some put it, 'no work'. As the seasons oscillate in Morocco, along the same cycle as they do in Europe, workers struggle to make a living and to meet their basic needs. The time needed for social reproduction comprises of everything outside of the workplace that needs to be done in order for workers to return to work in the long and short term (Bhattacharya, 2015; Federici, 2012). This is a particular challenge for low-income workers in Morocco. Some tasks involve heavy work: making bread by hand, scrubbing clothes without a washing machine, cleaning and cooking from scratch. Managing time to work and to live, around the yearly seasonal clock as well as the clock of the day, is therefore no simple matter.

A tension is apparent in industrial-scale agricultural work: *agriculture* works within the rhythms of nature, yet *industry* aligns with the temporal demands of globally synchronised market rhythms. In order to explore this tension, I turn to the literature produced on the so-called 'great transformation' (Polanyi, 2001) in which the dominant mode of production for the first time shifted from agricultural to industrial work. Whether this juncture is conceived as occurring due to the enclosures of common lands (Wood, 2012) or due to the exploits of colonial expansionism (Patel and Moore, 2018), a transition in working life for most of those involved is generally recognised. In his classic work on time during the industrial 'revolution' in urbanising England, EP Thompson (1967) demonstrates several key changes in the structural organisation and inner experiences of time for workers. His distinctions in relation to how time was differentially constructed in the context of work in nature and industry are useful

¹ Canned tomatoes and products such as passata and purée may be produced via mechanised harvests, for example in Italy (see Melossi, 2021 in this issue). However, elsewhere, and in the case of tomatoes picked to be sold intact and unpreserved, mechanised harvests are unlikely outside the USA.

benchmarks and I use them, alongside recent work on time, rhythm and seasonality, to explore the tension in industrial agricultural work: it is done within the ‘natural’ world for ‘industrial’ market rhythms. The terms ‘nature’ and ‘industry’ are used here as concepts to interpret the dynamics of social organisation related to temporal imperatives; they are not intended to ignore the complex interplays of technological innovation within agricultural production today.

Thompson’s analysis is clearly incomplete; however, it provides a foundation for the exploration of the deep contradictions of work in agriculture. One absence in his work is what feminists have identified as the ‘secret of primitive accumulation within capitalism’ (Federici, 2012); the work done in the domestic sphere, be that care and domestic work, in the kitchen, the bedroom or the garden. Furthermore, as we know from migration scholars, social reproduction also often occurs in regions of origin (and return), and therefore work done in one place by a migrant worker is often supported by extended global care chains of families and communities (Hochschild, 2000). I therefore add the category of social-reproductive time to my conceptualisation of time-imperatives in agri-food work.

2. Methodology

Alongside a literature review, secondary data and some legal analysis, this article is based on field research in the region of Chtouka Aït Baha in Southern Morocco, 40km from the city of Agadir. Following a period of four months of intensive language training in Moroccan Arabic in 2015, I spent four months in Southern Morocco in 2016 carrying out qualitative research in the region of Chtouka Aït Baha. The research was adapted to the constraints and opportunities of access to what is a very sensitive research context. The primary research method was ethnographic observation which was possible as I was situated for three of the four months of fieldwork within the town of Ait Amira, which is at the epicentre of the region and where predominantly low-waged workers are based. In the second half of this fieldwork 20 people were also interviewed. Finally, a workshop was held which permitted a collaborative exploration of ‘work’ in the region and its impacts.

My personal characteristics are relevant to contextualise this fieldwork. I am a white British researcher from a university in the UK, a country in the Global North, leading me to have clear outsider status within Morocco. There is little direct cultural connection between Morocco and the UK, making my nationality the more conspicuous part of my identity; within Morocco the UK is often associated with France, the former colonial power, as well as with other areas of Europe, meaning the UK is perceived as a powerful, if lesser-known foreign state. Nevertheless, my marital status as a single woman, and my identity as a (PhD) ‘student’ contributed to me being perceived as quite young. The intersections of my identity as a white researcher from a rich country placed me in an upper-class social position relative to most residents in the town, yet with only student status as both a language learner and a PhD student, I was sometimes afforded only ‘childlike’ status (Medland, 2019; Watson, 2004). This meant

that I was regarded at different times and by different social actors as influential, vulnerable, threatening, curious and inconsequential. This social position clearly affected the profile of research participants. As a woman, more informal ethnographic observation involved women and occurred in homes, in markets, and at cultural celebrations. In contrast, in work-related scenarios, there was a higher proportion of men than women – for instance, in trade union meetings there were often twice as many men as women. The profile of research participants also varied by time; as the high season commenced women typically had less time and so fewer were present at trade union meetings and social events.

One limitation of this research was the lack of access to workplaces: only two greenhouses were visited. Several visits were cancelled by managers upon the realisation that I was a British researcher. The concern from companies, relayed by individuals who expected to facilitate visits, were primarily worries about my potential connection to a growing UK market in which Moroccan produce has a little-blemished reputation. The wider community in the town and workers were very receptive to my presence, and my stay was possible in the region due to my working knowledge of Moroccan Arabic. This meant that I was able to work without a translator and was able to accept invitations from families, workers, schools and charities. Ultimately, after three months, the authorities insisted that I move away from the town of Ait Amira, stating that it was too ‘risky’ for me as a single European woman. The town was perceived as such due to recent stabbings and high levels of petty crime. Access may also have been withdrawn at this time due to other concerns (e.g. of bad press); this remained unclear at the time of exit. Little research in this region (Moroccan or international) has involved ongoing presence in the field and this research therefore represents an important window into how working life manifests for workers, as captured through a range of qualitative methods from within the town of Ait Amira. All data gathered during the field research was fully and systematically transcribed. The data was then coded using the qualitative data analysis programme Nvivo, using an inductive and interpretative approach.

3 Research context

The majority of migrant workers in the region of Chtouka Aït Baha are from poorer rural regions of Morocco, particularly from rural areas in the vicinity of cities such as Marrakesh, Khenifra, Asphi, Essauira, and El Jadida; however, workers come from all over Morocco, and also from Western Sahara. I refer to workers, as opposed to migrant workers, because although ‘migration’ is a part of the experience of the vast majority of people in the region, it is not the most common way in which workers identify themselves. Most are of Amazigh (Berber) ethnic background. However, there are key language differences between regions of origin, with three versions of Amazigh recognised in Morocco, and more variations of dialects spoken. The region’s *linga franca* is therefore Moroccan Arabic, officially only recognised as a dialect, but which is the language spoken on television and radio throughout the country. Migrants’ ethnic diversity and linguistic knowledge is therefore a factor in access to informal networks, services

and some employment opportunities. During my fieldwork I encountered no international migrants working or living in or around the town of Ait Amira. However, I was aware (from meeting international migrants from Sub-Saharan Africa in Agadir), that international migrants were beginning to enter the sector in some greenhouses closer to the city of Agadir. This connected those few working in agriculture with international migrants working in other trades such as street vending. In this paper, when I refer to workers or migrant workers I mean internal migrant workers in the agri-export industry of Chtouka Aït Baha.

Wages in industrial-scale agriculture in Morocco are lower than in other forms of industry; at the time of fieldwork (2016) the minimum agricultural wage was 69.73 Moroccan Dirhams, the equivalent of £5.37 per day, whereas the equivalent daily minimum wage for industry was £8.29 per day (Morocco, 2014).² This demonstrates that the sector is low-waged not just in comparison to countries to which it exports, but also in relation to other sectors in the same country. Although there are no official or reliable statistics, the working population are estimated to be 50,000 -70,000 people in the Chtouka Aït Baha region, of whom trade union officials consider around 70% are women (El Haiba, 2018: 152). This is one of the most evident characteristics of the population; what accounts for it is discussed in recent research (El Haiba, 2018) and aid projects in the region are also dedicated to the acute struggles faced by women workers (AFdS, 2012). The difficulty for Moroccan women to find work in many other sectors, and the global phenomenon of the feminisation of agricultural work, are some key contextual factors that go towards explaining the growing role of women in the agri-industrial workforce. Workers are undermined due to their gender in ways that include the lower status of households headed by women, the vulnerability of single women to slurs on their reputation and particular social pressure on single mothers for whom there is a significant social stigma in Morocco. The age range of workers varies from teenagers to people in their sixties and older, and after several decades of intense agri-industrial activity in the region, there are now many retired people and a second-generation resident in the region.

Moreno Nieto (2014: 207) lucidly describes how actual working practices occur in a context in which a predominant ideology of gender relations prevails; this is predicated upon a sexual division of labour in which women are responsible for family work and childcare while men are expected to provide economic support for the family. This explains why women who are the principal breadwinners have been shown to hide this by overstating their husbands' roles in the economic support of families, or underplaying their own role (Bossenbroek, 2016). By acknowledging the disruption of social norms that female breadwinners present, the significance of the fact that the workforce is dominated by women, many of whom are heads of households, is brought to the fore. From my fieldwork, I found that such women had a variety of social roles and positions that led them to be breadwinners in their households, including as widows, divorcees, aunts, young women seeking experience due to aspirations

² This minimum wage established in 2014 and revised in 2019 to establish a pay-rise for workers of 10% over two years. However, it is not clear that these increments have been applied and pay rises agreed have not narrowed the gap between agriculture and other sectors.

and/or poverty and others. Nevertheless, men are also working in the region and in order not to eclipse their roles they have also been involved in the research.

4. Conceptual framework

4.1 Industrial time: time becomes money

Time is a key factor of work; it is a way through which work and wages are measured and through which many people identify a work/life distinction in their lives. In Thompson's analysis, 'Nature's time' refers to the pre-industrial time by which *work* and *time itself* are measured and understood through activities of certain durations – the time for the sun to rise or for animals to graze (1967: 60). He observes that, for labourers working from dawn to dusk in harvest time, it can appear that 'the compulsion is nature's own' (1967: 60). Yet, in the transition to industrial production, timed labour, measured by 'clock time' changed the nature of work; the organisation of industrial activity created a new discipline within capitalism (Thompson, 1967). I will refer here to both 'merchant's time' and 'clock time' (as they are intermittently described by Thompson) as *industrial time*; this was the major shift that Thompson described. Via this industrial time, it was business owners who both established the hours of work and owned the early watches, taking time and its use out of workers' control in industrial factories, in a way in which was not previously the case (Thompson, 1967: 60).

Considering contemporary agri-industrial food work, an in-built tension becomes evident because it occurs both within nature, within nature's rhythms, and also at an industrial scale corresponding to market imperatives. For agri-food workers, in the present day, there are elements of control, 'work discipline' (Thompson, 1967: 57), and pressures emanating from both natural and industrial time. Due to the inherent connection to nature, the time for much agricultural work continues to take place in task-related sequence. Simultaneously, time imperatives, by day, week and season, are affected by the most recent iteration of industrial time; these imperatives that filter through to the workplace from a globalised system of just in time production (Hutchins, 1999), orchestrated by the demands of retailers, are ultimately deeply conditioned by the investment and profit seeking dynamics of finance capital (Burch and Lawrence, 2013; Corrado et al., 2017a).

4.2 Nature's time: stretching seasons

I refer to 'nature's time' in Thompson's sense as time or temporal processes (e.g. harvest time) that are understood and occur in direct relation to nature, particularly in relation to daylight periods, weather, climatic seasons (or socially constructed counter-seasons which bear a relationship to climatic seasons elsewhere). This is also directly connected to the perishability of food crops. Counter-seasonal production has become a common feature of agri-food systems

in which politically and economically dominant regions procure fresh food from regions with seasons and labour markets that are able to supplement local markets (Bonanno and Cavalcanti, 2012; Freidberg, 2009; Gertel and Sippel, 2014). I argue, therefore, that counter-seasonality still occurs in relation to 'nature's time'. In counter-seasonal production, a growing region is socially and politically orientated into a temporal relation which matches the demands of the economically dominant region. This means that production occurs at times of year which are *preferable* for powerful market actors who can therefore procure 'fresh' food year-round. Such times are *possible* although not easy due to suboptimal climatic conditions, seen in this instance of transition in Morocco to intensive winter production which required investment in greenhouses, hybrid seeds and in some cases southward relocation (Boekler, 2014: 28).

'Fresh' has been recognised as a category ascribed to food products, and one that is entangled in politics, economics and hidden costs for workers (Freidberg, 2009). The case of the Moroccan 'season' of production will help us explore this further. The liberalisation of trade between Morocco and the EU has meant that the 'marketing year' (European Union, 2012) or 'season' for Moroccan production (October-May) has been constructed in inverse seasonal relation to the traditional growing period in Europe. As in other cases where dominant powers, such as the USA, consume counter-seasonal produce from elsewhere, this forms part of broader political relationships in which the more dominant power establishes the temporal market opportunity. The EU and Morocco trade arrangement is also entwined in a broader relationship including matters of migration, border enforcement and other diplomatic and geopolitical questions (Sippel, 2017). The EU and Morocco have been in an Association Agreement since 2000 which created a 'Free Trade Area liberalising two-way trade in goods' (EU-Morocco, 2000; European Commission, 2018). The arrangement entered a new phase following the Arab Spring of 2010. Although this did not gain the same strength in Morocco as in neighbouring countries, it did lead to a new constitution (Morocco, 2011). The EU's own commitments in the wake of the Arab Spring involved a new disposition to deepen trade relationships, and in 2011 the European Parliament authorised trade negotiations with Egypt, Jordan, Tunisia and Morocco (European Parliament, 2012, preamble paragraphs 4-6). In the case of Morocco, the Association Agreement on Agriculture (European Union, 2012) was partially a result of such negotiations.

The growth of this counter-seasonal market, and its institutionalisation in law and practice, has also been the focus of serious contestation, especially from competitors already orientated towards the same market; during the negotiating period, European (particularly Spanish) farmers staged vociferous protests against Moroccan access to the EU market (Sippel, 2017). The outcome was protection for European producers from Moroccan competition between June to September; and tariff-free quotas for Moroccan producers operate between October and May, which reach their peak in the four months between December and March (European Union, 2012). In Morocco, production of tomatoes is a highly concentrated sector, dominated by few individuals, in direct connection with the Moroccan elite (Sippel, 2017). Many of the firms involved are joint Moroccan-European endeavours in which much European

investment is orientated towards complementing growing seasons in Europe to guarantee year-round production for consumers (Sippel, 2017: 154). Formally, this export-orientated production has been pursued under the national intensive agricultural modernisation programme, 'Plan Maroc Vert' (Moroccan Green Plan); a plan that has been much critiqued for compromising food security and further marginalising small farmers (Akesbi, 2014: 167; Houdret et al., 2017: 29).

4.3 Social reproductive time: inherent tensions

Pre-existing forms of low status, stigma, social exclusion and racism can be seen to intersect with social and economic hardship reproduced through poor working conditions and detrimental everyday rhythms and demands on time from market and ecological pressures (Reid-Musson, 2018). A significant area of critique of Thompson's characterisation of temporal worlds regards the recognition of the temporal rhythms of domestic and care work, disproportionately performed by women. Cott (1977) demonstrated how women's rhythms changed less, and differently to men's, but even where their incorporation into industrial work occurred, for a long time this was socially constructed as supplementary work to other domestic and household roles. Thompson (1967) acknowledged that care of children was the most task-orientated work of all; however, work demanded in the domestic sphere is not properly integrated into his account. The experiences of women in agriculture often involve shouldering large domestic, as well as social and economic burdens, and the feminisation of agriculture has involved women's increasing presence in paid work without significantly reducing their roles in the sphere of social reproduction (Lyon et al., 2017; Pattnaik et al., 2018). As in other 'dirty, dangerous and demeaning' (3D) jobs (e.g. Anderson, 2000; Hochschild, 2000), this is often therefore compounded in its physical and economic difficulty by elements of social exclusion, or stigma. Sometimes focused on workers' social position as migrants, this can take the form of racism (Corrado, 2011). Heavy burdens of social-reproductive work can also manifest as socio-economic pressure and place women in demeaning roles across differing spaces and places within the same food chain (Barndt, 2002).

The concept of social reproduction helps challenge the idea that work in a 'workplace' occurs independently from other necessary work such as domestic and care work. Bhattacharya clarifies that social reproduction means 'the reproduction of the entirety of society' and argues that it is vital to 'revise the common-sense perception that capital relinquishes all control over the worker when s/he leaves the workplace' (2015: 7). By integrating an analysis of social reproduction into the consideration of time imperatives for workers in agri-industrial contexts, we can illustrate more effectively how the navigation of temporal imperatives occurs not only in the workplace but also in the home(s), market and multiple journeys in-between. From a feminist perspective (e.g. Federici, 2012), the reproduction of the workforce, which women workers are disproportionately involved in, is not external to work-time but a fundamental precondition for the work to occur.

4.4 Time dynamics as power

We can acknowledge that there is no one *singular* time. Yet there are connections between the ‘here and now’ in one place and that of another. Time can be understood as made up of interactions and of simultaneously co-existing trajectories (Thrift and May, 2001). Such interactions operate in contexts of power: for example, when fresh food is demanded in one given place, this creates a time-related *imperative* in another place to ‘*hurry, work faster*’. In agri-food systems, mediating actors are also deeply involved; these include a multitude of actors including traders, intermediaries, exporters, retailers (especially supermarkets) and financial actors (Burch and Lawrence, 2013). These actors shape the uneven social fields and trajectories of existing power-relations and have played a major role in constructing seasons to meet ‘windows’ of time in which it is convenient for political or economic reasons for a certain region to produce for the global market (Bonanno and Cavalcanti, 2012: 45).

In the Mediterranean region, seasonal work dynamics have been considered in detail by Gertel and Sippel (2014). Their framework demonstrates how changing spatialities and temporalities together lead to powerful actors profiting through what they call ‘flexiprofit’, and those who are vulnerable being exposed to conditions of ‘flexicurity’ (Gertel and Sippel, 2014: 12-13). While Gertel and Sippel’s framework eventually emphasises how seasons have been ‘dissolved’ (2014: 247), I add a nuance to this by highlighting where the impact of seasonality and other aspects of nature’s time still play a significant role for workers. Such elements include the circadian day-night cycles, which condition when food can be picked and packed, and weather-related factors and incidents alongside seasonality. These factors are incompletely controlled and compensated for by the intensification and territorial re-organisation of agri-food production.

Inherent tensions in time are conceptualised in Lefebvre’s (2004) ‘rhythmanalysis’. Lefebvre depicted rhythms of life with distinct implications: *polyrhythms* in which two or more rhythms exist together without conflict; *eurythmia*, in which there is interaction between rhythms yet they are not of resistance; and *arrhythmia*, in which there is conflict and dissonance between rhythms that interact. In counter-seasonal production, we can interpret the inversion of the yearly rhythm from Spring to Winter as an instance of *arrhythmia* (dissonance). In counter-seasonal production, not only asocial working hours, but also inversely seasonal activities significantly shape workers’ everyday lives.

We have suggested here the need to add a full appreciation of social reproduction to EP Thompson’s analysis. Likewise, Lefebvre’s rhythmanalysis has also been fully critiqued due to the need for it to take account of gender and other power relationships. Reid-Musson (2018) emphasises that rhythm can provide a window into everyday power relationships and how these are patterned differently according to racialisation, class, age and other intersectional factors. Applying rhythmanalysis to the study of agriculture and migration, she argues that ‘migrant farm workers’ unfreedom becomes routine and patterned in rhythms’ (2018: 883). Therefore,

with a broader attention to gender and intersectional factors, both Thompson's temporal categories and Lefebvre's attention to rhythm can be considered useful ways to see power relations through time. In order to take the use of rhythm forward into the analysis, I utilise Reid-Musson's (2018) re-formulated intersectional account of how rhythms can produce and reproduce relations of power in the everyday.

5. No time, just in time

5.1. *The imperatives of industrial time: producing for the market*

The perishability of fresh food crops means that the demands or orders of supermarkets place direct pressure on any one day of picking and packing, particularly during peak times. This can mean very long hours and intermittent working schedules depending on orders from retailers and the number of 'clients' (usually retailers or brands) that a packing station is working with. These pose difficulties for workers as they are often presented with extended working hours at little notice. As Salma describes below, these unpredictable extended hours, which sometimes keep workers in packing stations until late at night, require significant flexibility on the part of workers who are expected to organise their time exclusively in response to the demands of the orders from importers and buyers. Like the other participants quoted in this paper, Salma's name is pseudonym.

Maybe I'll end up working up to 14 hours if there is an order that I must finish. So that means they'll tell you, 'I have the order, and I need to finish it.' If it isn't finished in 8 hours, they increase it by two hours – 10pm, if it isn't finished in two, by 10pm, they'll increase it to 12 am, they'll increase it up to 14 hours. So that means that maybe you've started it at 8 in the morning and until 12 at night all you get for your rest is an hour and a half. An hour for lunch and half an hour for a break. So that means your body ends up exhausted. (Salma, female worker)

The above quote also depicts the crucial linking and disciplining factor of the 'order' that must be finished. This order links the rhythms of production with the imperatives of the demand in buyer-driven food systems. Furthermore, there are traces in the way that this system of time and work discipline are discussed that link to previous forms of connection and control. Quite literally, the word 'demand' is often heard in the region. Yet it is the French word *demand* for the English 'order'. This is noticeable because the majority of the system of production is discussed by workers using terms originating from Arabic. Yet certain words, in the tradition of Moroccan Arabic, come directly from French and other languages. The order placed by clients such as supermarkets that packing houses strive to complete is referred to by workers as '*le demand*'. The use of the French word, even in contexts where clients are not French,

indicates the traces of older forms of power in which, since colonial times, sections of Moroccan agriculture have been orientated towards French markets and urban centres (see Bouchelkha, 2017). What this shows is the trajectory that globalised production networks take; they emerge from pre-existing power relations and social dynamics. As Friedberg notes, while Europe relies on its former colonies to produce labour-intensive fresh produce, the United States imports a ‘fresh’ supplies from Central and South America (2009, 193). In this case, the ‘demand’ or ‘order’ manifests for workers as both a daily pressure on them to work hard and fast, and as one of the targets before which, in the case of packhouses, they cannot go home.

And there’s targets, there’s a lot of them. Even when you’re stopped, on a break they say to you, ‘hurry up’, ‘come on’. There’s no time... You say ‘give me a second’, and they say, ‘get out there’. [...] All that, it isn’t easy. (Assisa, female worker)

As expressed by Assisa, the pressure that she felt, even when on a break, reflects not having time to oneself even in supposed moments of rest. Time can be identified as an axis of connection with sites of consumption, through which pressure is applied to complete orders by certain cut-off times which workers experience through daily and weekly rhythm changes, and pressure from bosses for them to work harder. This is a recognised feature of industrialised horticultural production with intensification of working rhythms being a common problem (Ortiz, 2002; Rogaly, 2008).

There are two main forms of agri-industrial work in this region: in greenhouses and in packhouses. Among workers, greenhouse work, particularly casual day labour found at the *Mouquef* (town square where workers wait to find work) is considered the worst kind of work. In terms of employment rights and social status, from worst to best perceived, there are: casual day labour which is non-regular via the *Mouquef*; casual day labour through personal contacts; ongoing but informal work; regular labour in a company on a short-term contract; and fixed employment in an established company. All these forms of work could involve physically working in a greenhouse or packhouse but only the last one, or possibly the last two forms, give workers access to the social security system. Although we can see both as affected by the time imperatives of ‘industrial’ and ‘nature’s time’, they are affected by different rhythms. Packhouse workers are more likely to be compelled to work late at night, as described by the quote from Salma above. Greenhouse work involves both the exposure of workers to extreme temperatures as well as to very early shifts which begin, particularly in winter, in the dark.

5.2 The imperatives of *nature’s time*: the challenge to get through the year

The imperatives of ‘nature’s time’ refer to where factors from the natural environment, including daylight, weather and seasonality, still place pressures on workers’ time. Inverse seasons (defined in inverse relation to Northern European summer growing periods) and a socially constructed ‘marketing year’ reaching its peak in the Moroccan winter (December-

March), pose inverse seasonal changes for workers. When I asked workers whether and how their routines differed throughout the year, its seasonal oscillation was unmistakable for them.

Yes, our work is seasonal. Seasonal: it's from October until May. Six months, six months, that's when we do the packing. Then after that, in Summer, we have about a month which is like holiday, we stay here. And then in July we work in the [plant] nurseries. (Tahra, female worker)

Above, Tahra charts how she and her friends and colleagues follow the rhythms of the year. Her work in her main job is between October and May and this corresponds to the period within which tariff-free quotas have been agreed between Morocco and the European Union. Yet, as she states, this is not the end of her work, as she then works in the plant nurseries. The period then, that is 'like holiday' in the early summer, illustrates how workers organise their time in relation to the industrialised, market-orientated rhythms of the global 'demand' for fresh food. Furthermore, it shows how workers re-frame this period of waiting as 'like holiday', demonstrating their agency in assigning to this time the purpose that is needed (a rest) following the intense rhythms of the peak months of work and production. This inverse season, responding to exogenous demands, does not disguise the clear need of workers to get through *the whole year*, not just the inverse season or marketing year during which tomatoes are exported in large quantities from Morocco.

The seasonal swing of work and life in Ait Amira is gendered. It is also clearly stratified by other intersectional factors including class (particularly levels of education and wealth at the time of arrival), ethnic origin, age, health and disability. While both men and women work in greenhouses, the packhouses are predominantly staffed by women and these close during the down-season. Sorting and packing fruit and vegetables within these packhouses is considered the work of women and this is common in other enclaves of production too (Dolan, 2004; Reigada, 2012). There are other jobs within packhouses of higher status which are given disproportionately to men, for example moving crates and supervising workers, typically paid at higher rates. It is the roles staffed mainly by women that end the soonest during the year. This pattern of women disproportionately needing to work long hours in the winter to compensate for a lack of work in the summer, supports the view of Reid-Musson (2018) that rhythms, in this case by season, help produce unequal subject positions.

For some the seasonal experience is manageable; this applies to those men and women with more established jobs and housing, of working age and without disabilities or injuries, who are well established in the region. Some 'waiting at home' can be tolerable for those workers who are able to mix and match jobs, or who work in a company that is able to move them between greenhouse and packhouse as the demands for produce change. When describing life outside of work, or in periods of unemployment, the stock response I heard referred to 'resting' or 'waiting'. For most, the idea that workers spend months at a time resting at home can be understood as a euphemism for seasonal poverty in the face of poor wages and unreliable

work, particularly difficult for migrant women not long settled in the region and with lower levels of education and few financial resources. This emerged in the interviews that I carried out at the *Mouquef* where one worker shouted in above another correcting her, or clarifying for my sake, a blunter response to my question by emphasising that it was a lack of work that they were facing, not an opportunity to rest.

Researcher – Now are you going to work, today?

Farida – No!

[someone else shouts] Resting, sleeping, unemployed! [laughs]

Farida – not resting or sleeping, there's no work. (Farida, female worker)

The laugh recorded above was a loud laugh at the audacity of revealing the reality, to me, a foreigner. By stating bluntly that they were 'unemployed' and that 'there's no work', they ensured that I fully understood that they were not 'resting' but rather prevented from earning wages due to a lack of opportunity and hardship. In other cases, descriptions of how people managed in the summer months revealed just how precarious their situations were. It sometimes turned out that their care responsibilities were extremely heavy, or that they themselves would return to caring for their own health or education. Another woman at the *Mouquef* explained her scenario more clearly:

I have three children, and I'm just renting. If I don't work, we don't eat. Now I'm not going to work [today]. I have the rent and the children and the childminder, they are with the childminder [now] and there are more children there. It's a lot, a lot, a lot [too much, too much]. (Faiza, female worker)

Therefore, the result of being unemployed is extremely costly and far from representing a rest period. For some this down-season is extremely difficult due to a lack of work and income. Some workers may think they have some paid holiday from their job, believing their job has been formalised when it has not; they come to claim this holiday pay and find it does not exist. For the poorest workers, particularly women, who find it difficult to find other work, summer months can represent a swing from agricultural work to much less desirable ways of making a living, as explained by the social worker of a project aiming to help women and their children.

Social worker – Either they return home [to the countryside] until the start of the agricultural season, or they stay here during that time to see what they can do here. Either they look for a job like making harcha and m'smmen [traditional bread-like foods] in the cafés, or they work in prostitution. The phenomenon of the d'3ara, as we say in Arabic, they do the prostitution. Do you know what I'm talking about?

Researcher – Yes, yes I know about it, but I didn't know the word for it. [...]

Social worker – There are women who sell bread and so forth. And there are women who work as childminders. [...] There are those that stay at home six months. [...] Or the treatments in the markets, have you been to the markets?

Researcher – Yes.

Social worker – And have you seen the women selling their things?

Researcher – Yes, yes. (Interview with Abdel, male social worker)

I had indeed seen many women and men selling second-hand goods. I had also seen trucks at the markets which I had naively assumed to be for people giving blood but which Abdel pointed out were for blood tests for people who wanted to check if they had been infected with HIV. The HIV prevalence was a problem associated with the seasonal poverty in the region leading many women to turn to prostitution as a source of income. Although I did not meet any women who admitted to sex work as such – and I did not ask this question of the people that I was typically meeting – I did become aware of a euphemistic Arabic phrase associated with it in the region, which was ‘to work in the room’. Abdel’s description above, whilst somewhat distanced from the personal experiences of women themselves, does capture a link which was both present and taboo in local discourse and reflected in medical studies showing high HIV rates in the area (Kouyoumjian et al., 2018). In the reports by charities this link is also made between the difficulties of agricultural work and other social issues such as this. In their report of 2012, the Charity Femmes du Sud had as one of their recommendations:

To raise awareness among the political and civil actors about the social transformations associated with the jobs of workers in Ait Amira: slums, pollution, growth of crime, sexually transmitted diseases, AIDs, prostitution, the consumption of drugs and alcohol, street children and single mothers. (AFdS, 2012, 12. Author's translation from French)

The above-quoted locally-produced study makes connections between the difficulties of women faced within and beyond the workplace. While some of the problems mentioned above reflect the Islamic social context in which alcohol and single motherhood are already considered problems in and of themselves, clearly, many items on this list of social issues are also more universally associated with underlying problems of poverty, which, for this case, have also been meticulously documented elsewhere (El Attaoui, 2010). This problem is connected to the agri-food sector in manifold ways, many of which are found in common with other enclaves of food production where agriculture and migration are often witnessed alongside very poor living conditions and social problems that are symptomatic of poverty (Corrado et al., 2017b). However, for the purpose of this analysis, it is connected to the seasonality of production because these inverse rhythms *accentuate* pre-existing poverty during the down-period of production.

The seasonal swing is a ubiquitous experience of agricultural work in this global enclave of production. While for some it may be deadly, for others its seasonality is a welcome relief to what is otherwise a gruelling work schedule. The schedule is in part difficult precisely because of the need to pack in many hours during the winter months in order to have money to survive the summer without turning to extreme and unfavourable forms of making money such as sex work and selling one's possessions. This also illustrates the intersectional impact of the temporal pressures in the region: while workers in families with several working age adults, secure jobs or social security may be able to make it through the summer with agricultural wages alone, poorer workers with fewer opportunities and security suffer greater risks.

5.3 The imperatives of social-reproductive time

As the time I spent in the town crossed from the low to the peak season, I saw how women who worked in greenhouses, and particularly in packhouses, gradually became increasingly short of time, run-down and exhausted. Just as I gathered energy, increased linguistic proficiency and confidence, they became less available and could often not commit to arrangements as their working times and days would get longer and change at short notice depending on the day-to-day needs of their employers. This strain on time clearly involved everything they had to do in order to be able to return to the workplace: the time-related imperatives of social reproduction.

It's difficult. You work and then you have to do the food and think, what am I going to wear tomorrow? What am I going to have for lunch tomorrow? What am I going to do tomorrow? The day that you have off, you go to the Hammam and you wash, or you go for a walk, but you can't go out or anything. That's life. If you want life, you have to wait until June! [laughs a sad, ironic kind of laugh] (Amina, female worker)

The idea that 'life' had to 'wait until June' illustrates how workers are forced to put many aspects of their lives on hold in order to balance the intense seasonal pressures of the peak production period with other, perhaps longer-term aspirations or plans. This is seen elsewhere in the literature on agri-food work. For example, Hellio (2014) illustrates how women workers used their agency in relation to seasonal work (travelling to Spain on temporary visas), including by planning pregnancies to correspond with the first months of the season only to return home for the birth. As Hellio observes, these women's 'wage earning' means changes in social relations, but ones that place social 'reproduction subordinate to the work contract and not vice versa' (Hellio, 2014: 154). While the present example is subtler, it confirms this analysis: Amina observes that if one wants life, one must wait for the season to be over: this places the working schedule before other aspects of 'life'. It is 'life' that must wait, not the work.

Nevertheless, there are other aspects of social reproduction that cannot wait. Cooking, washing, cleaning clothes, must be attended to even in order to get through a week in the high season. These pressures are multiplied for those women with children who must attend to the more intense rhythms of social reproduction associated with daily childcare that cannot be put on hold. Many workers (predominantly women) take their children to childminders and nurseries that accept children early in the morning and have mattresses so that children can continue sleeping while their parents go to work. While children going to school create a normalising rhythm common to any working town, the times at which they are taken to childcare, often as early as 5am and as late as 10pm, in fact respond to the three temporal imperatives discussed in this paper. This rhythm is the result of the industrial time imperatives to work fast and with few breaks, the pressures of ‘natural time’ to make use of every daylight hour for greenhouse work or for packhouse work to compress a year’s worth of work into an endogenous ‘season’, and the social reproductive time pressures to ensure children are looked after when workers are at work without family support available.

The long-term impact of this work emerges as workers, after years of enduring the rhythms of this sector, become too exhausted to continue. Other factors also affect workers’ ability to make this a sustainable job and life; workers are disproportionately affected by accidents in transport as they are carried in pick-up trucks and other unsuitable vehicles. This means that children may need to join the workforce early, with one adult earner out of the workforce, the pressure on others increases to make enough to get through the year. Exhaustion was therefore a key part of the experience of working in agriculture, due to both the physicality of work and the long hours requiring stamina and endurance to get through the day. Exhaustion is a common feature of agri-food work, as well as many other serious associated health conditions (Holmes, 2013). Some of my participants had worked in agriculture but found ‘a way out’ where they attempted to gain better conditions, as in the case of Assisa who left greenhouse work to become a childminder.

I was exhausted. I couldn’t continue. I couldn’t continue working [in greenhouses]. So that was it, I couldn’t carry on working so I did this, with the children. I did this work. This work it supports me a little, but ‘there’s no tea in it either’ [expression meaning there’s no money in it]. (Assisa, female ex-greenhouse worker, now childminder)

Although alternative forms of work are available, these related jobs function within the same social system, with its wage levels and rhythms, meaning that just as agri-workers are paid little and intermittently required to start and stop work, so too are the service workers that support them. The mobility of workers in the long run can therefore be seen as often reducing, the more of their lives is passed in this agri-food enclave. Getting ‘locked in’ to a system with rhythms that compromise personal and social life can therefore be seen as a systemic feature of the agriculture and migration nexus. The system is reproduced, as onward migration, a return to villages, or an exit from this labour market, are for many implausible.

6. Concluding discussion: Agriculture, migration and the triple imperatives of time

The relations between migration and mobility and the three imperatives of time put forward in this paper are multiple. As Reid-Musson states, ‘Rhythms create quotidian disciplinary conditions upon which exploitative migration and mobilities regimes rest’ (2018: 882). I would argue that the reverse can equally be true: the temporal imperatives identified in this paper, in the case of Southern Morocco, rest upon migration and mobility regimes. Depending on the context, either process may precede or occur in a simultaneous and mutually reinforcing way. We can see that industrial time corresponds to the needs of the agri-industry: through the incentive of time as money (wages), it ensures that workers are available to meet the demands of production. Often, such workers, willing to travel to the place of low-wage work due to their unprotected status or few alternative opportunities, are migrants. While this does not explain internal migration itself, the rhythms and temporal imperatives of export-orientated production, are certainly compatible with internal migration.

Considering the imperatives of ‘nature’s time’, agri-industrial work is seasonal, or counter-seasonal, and therefore provides incentives for workers, to maintain connections in regions of origin. Yet, this does not mean that workers will return to regions of origin with the regularity of the seasons. More broadly, due to both widespread poverty and social ties in regions of agri-industrial production, the overall *mobility* of migrant workers does not correspond with what we call here the imperatives, or distorted imperatives of, ‘nature’s time’. This tension therefore represents a struggle for workers which we have seen depicted in the challenge of how workers get through the whole year.

Finally, social reproductive time can be understood as a counter-force to mobility once workers are engaged in work in the region. Once settled, workers have many reasons to remain *in situ*; when agri-industrial rhythms slow so ‘fixity’ becomes as relevant as mobility. In setting up life in relation to work, workers’ social and domestic lives also evolve in these spaces and places. Over the long run, the combination of poor wages and the social reproductive tasks necessary on a daily and weekly basis (including caring for children), are increasingly done *within* enclaves of agri-industrial production, making it difficult to return. Finally, restricted inter-state borders shrink potential for further onward mobility, making it highly risky. The daily rhythms of ‘no time’ therefore appear to rest on exploitative regimes of mobility and migration, as well as the potential for migrant workers to become ‘locked in’ to the ‘arrhythmic’ patterns of working life that they are compelled to, as described in this paper.

Returning to Tesco’s advert mentioned at the start of this article, ‘Freshly clicked’ implies something more than the computer mouse of a consumer ‘clicking’ on the product they have chosen. *Fresh* tomatoes, strawberries and asparagus on the sides of the Tesco van, implies that they have been picked recently. In this article, I have explored how the demand for such ‘fresh’ food is manifested in the enclaves of agri-food production as ever-present yet continually changing demands on workers’ time. Within enclaves of agri-food production,

where seasons last for long periods of the year, immobility is therefore as much as feature of workers' lives in the long run, as is mobility.

The axis of time pressure is also an axis of *control* and time discipline. The control and pressure felt by workers is expressed in the speed at which work is carried out, and the intermittent demands on time which create rhythms that can have long-term and short-term implications. What begin as day-to-day tensions for workers (for example between the need to rest and accumulate many hours in winter, or the need to leave school early to support other members of a family), quickly become long-term and endemic issues of ill-health, poverty, and poor living conditions. They are often the difference between decent work and living, and exploitative work and poverty.

This article has illustrated how there are at least three major temporal imperatives expressed for workers in enclaves of production: industrial time, manifesting at the time-schedule of the 'demand' of consumption in another time latitude; nature's time, both manipulated and resistant to erasure as weather and crop cycles continue to affect workers' day-to-day and year-to-year access to work; and time for social reproduction. These pressures result in a scenario of overlapping in-built temporal tensions; instances of what Lefebvre describes as *arrhythmia*. Finally, as we can see from examples of adverts on delivery vans in the UK, these are time dynamics in which consumers are also inadvertently involved. The dynamics involved in completing an online 'order' are very much obscured, yet, it is these demands for year-round *fresh* food which manifest as pressures and imperatives that contribute to the lived experiences of 'no time'.

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