"Coffee and Cigarettes"*: Work Contexts and Performance Management

Hélder RAPOSO [1,2], Elsa PEGADO [2], Carla F. RODRIGUES [2,3] and Ana I. FERNANDES [4]

(1) ESTeSL-IPL – Escola Superior de Tecnologia da Saúde de Lisboa, Portugal
(2) Iscte – Instituto Universitário de Lisboa, CIES-Iscte, Portugal
(3) University of Amsterdam (UvA/AISSR), The Netherlands
(4) IUEM – Instituto Universitário Egas Moniz, CiiEM, Portugal

(corresponding author: helder.raposo@estesl.ipl.pt)

Introduction

In a context of an increasingly global and competitive economy, emerging restructuring and organizational dynamics demand greater versatility and functional efficiency, while often promoting precarious working conditions in different professional contexts. Problems such as the intensive pace of work, insufficient free time for extra-work activities, long working hours and/or rotating shift systems, along with the need to adapt to new practices and routines, are just some of the indicators which reflect the high pressure put on professional performance. While this pressure cross-cuts different working areas, the extent of its impact tends to be most relevant within professional groups whose nature of work links them to more demanding and higher responsive levels of performance.

This paper draws on an ongoing sociological study[1] on 'performance consumptions' at work, i.e., the use of medicines, food supplements and other products to improve physical, intellectual and social performance in the workplace, which is taking place in Portugal. Based on qualitative data from seven focus group discussions (FGD) with a total of 33 participants, and on the interim results of a quantitative survey applied to workers from three main professional areas (health, security and communication) (n=406), we explore: 1) the work context and working conditions of these professionals and the pressures they create for certain forms and levels of performance; and 2) the role of coffee in managing such professional imperatives. Focusing on the social context that structures the daily work of these individuals, we analyse the social expression of such common stimulant, and how it is mobilized to deal with issues such as sleep problems, fatigue, to improve concentration, or to deal with the negative implications of stress. The use of coffee and cigarettes appears as a legitimate practice in the everyday working routines, due to their socializing markers, whereas additional benefits are attributed to coffee, given the perceived improvement in performance management. While most individuals showed reluctance in using medicines or supplements for similar effects, some of the daily coffee consumption practices reported higher doses of caffeine than what has been considered as 'safe', making it the most everyday consumed psychoactive drug.

* Original title of Jim Jarmusch's 2014 film

[1] "Medicines and dietary supplements in performance consumptions: social practices, contexts and literacy" (PTDC/SOC-SOC/30734/2017), financed by Portuguese Foundation for Science and Technology (FCT).
Participant institutions (3): ISCTE-IUL – Instituto Universitário de Lisboa; IUEM – Instituto Universitário Egas Moniz; UP – Universidade do Porto.

Working under pressure: rhythms and deregulated temporalities

The issue of time is undoubtedly one of the critical aspects arising from the multiple reconfigurations of work, since the accentuated imperatives of performance lead to increasingly less linear and standardised times and forms of work. However, more than just the quantity of hours worked, there are also other types of temporal patterns related to the way in which work is distributed, the intensity of tasks during the periods in which they take place or the control (or lack of it) that may actually exist in the management of that time (Johnson & Lipscomb, 2006). This broad temporal reconfiguration of work (Sennett, 2001) is thus marked by flexibility, less routine tasks or inconsistent and variable time patterns.

In this sense, although we are talking about a general trend whose ramifications extend to multiple and different labour spheres, the extension of its forms of pressure has a more prominent impact within the scope of professional groups whose nature of work ties them to highly demanding levels of performance and more immediate response, or which are part of labour markets subject to major economic, technological and organisational mutations. Without being exhaustive, we may consider that this is the case of areas such as health, safety and communication, since, regardless of the distinctive particularities of each one, these areas end up being a good reflection of the increasingly imperative character of high levels of performance and of the requirements of permanent adaptation to polyvalent and non-routine forms of work.

If we look at the interim results of the questionnaire survey of the research that provides empirical support for this discussion, we can see that the time pressure to which these professionals are subjected is indeed significant, due to the length of their working time. This means that for many of these professionals it is a common tendency to work more than 8 hours a day (47%). This extension of working time is also reinforced by the fact that 40% of those interviewed accumulate professional activities.

Another equally relevant aspect is the predominance of irregular working hours, mainly due either to shifts with nights (50%) or flexible working hours (12%). Fixed hours represent only 28%. In one way or another, most of these professionals work regularly during the night and at weekends. This irregularity of working hours includes the unforeseen hours, without prior notice, a situation that ends up happening to almost two thirds of the respondents.

Considering these aspects in conjunction with the specificities of the nature of the work of this type of professional group, it is therefore not surprising that the respondents perceive their work rhythms as very, or excessively, intense (69%).

In fact, these perceptions regarding the characteristics of professional work as generating forms of pressure and wear also stood out very visibly in the context of the FGD. According to the participants' experiences, their work contexts are marked by demands that require a capacity for rapid response based, not only on criteria for choice and decision-making in adverse circumstances, but also on adaptation to complex and differentiated situations and great psychological stress.

In this sense and as the results of the survey attest, the professional demands are unquestionably those that focus on the intellectual (mental agility, concentration, memorisation) and relational (communication, emotional control, conflict management) components, rather than on the physical component (strength, agility, endurance). Regarding the aspects which are more demanding in the intellectual domain (very or extremely demanding), "concentration" (89%) and "mental agility" (87%) stand out. As far as the relational domain is concerned, the aspects that stand out as more demanding are "emotional control" (88%) and "communication skills" (87%).

The abovementioned work characteristics have implications on sleep, both in terms of objective patterns and in terms of the workers' perceptions of the quantity and quality of sleep. In fact, sleep is one of the elements that is both a result of the nature of work and a constraint on work performance, thus triggering the need to manage it. Long working hours, intense rhythms and shifts generate sleep deficits and become factors favouring the development of sleep disorders, such as insomnia, or difficulties in falling asleep, for example. These very characteristics of working times and rhythms create the need to ensure states of alertness and concentration, which are not compatible with the lack of sleep.

The relationship between social sleep patterns and work contexts has been evidenced in various studies. Burgard and Ailshire (2009) examine whether and how common conditions and experiences at work may "follow workers home" and impinge on their quality of sleep. Chatzitheochari and Arber (2009) reflect on a "long hours culture" of work and examine the relationship of insufficient sleep duration with occupational circumstances and family responsibilities. An inverse relationship between working hours and sleep duration is found, while shift work is also a significant predictor of reduced sleep. They conclude that sleep loss and fatigue are therefore prevalent problems in the modern workforce, particularly as long work hours and shift work become more common.

The interim results of the workers' survey show a similar picture of sleep patterns. Given the socially recommended number of hours of sleep (7-8 hours), sleep deficits are considerable. On working days, 61% of respondents sleep on average up to 6h a day. In line with this pattern, 60% consider the number of daily hours of sleep as insufficient, while 54% classify its quality as bad, very bad or poor.

These results also show how working hours have a significant impact on sleep time. There is an inverse relationship between the number of daily working hours and the number of daily hours of sleep. Similarly, the perception of the amount of sleep is more negative for those who spend longer hours at work. The same applies to work schedule, where the penalisation in the amount of sleep is much more severe for those who work in shifts (with overnight stays), compared to fixed or flexible schedules (without shifts). In effect, night work seems to have clear effects on the number of hours of sleep. Those who work nights more often are the ones who declare a lower daily number of hours of sleep and the ones who evaluate this quantity as being very insufficient. Regarding the quality of sleep, the less favourable evaluations (considering it as bad or very bad) are higher for those working longer hours, for those working in shifts (with overnight stays) and for those who work more often at night.

The consequences of shift work (including night work) on the quality of sleep were, in fact, one of the most frequently reported by the participants in FGD, insofar as the deregulation of working hours causes a deregulation of sleep rhythms, namely difficulties in falling asleep and maintaining a state of alertness in accordance with the concentration levels required during working periods, particularly in professions which, by the nature of the work itself, put special pressure on professional performance.

Sleep deprivation has been associated with impaired cognitive performance, decreased productivity in the workplace and an increase in accidents and errors (Coveney, 2014). Also, poor sleep may have emotional and interpersonal consequences in the workplace (Anderson, Hagerdorn, Gunstad, & Spitznagel, 2018). As reported in the FGD, physical and psychological states of fatigue caused by lack of sleep can lead to difficulties in establishing relationships with colleagues, or the population with whom the workers deal.

Since work is one of the most permeable arenas for the social valorisation of performance, in a context of "social acceleration", a "desynchronized high-speed society" (Rosa, 2003), or the "24/7 society" (Williams, 2014), sleep management, in particular the importance of staying awake, either to compensate for possible deficits generated by the work itself, or to meet the imperatives of efficiency and productivity, may become a necessity.

Coffee in the workplace: a functional break or a performance consumption?

In such highly demanding professional areas, with intense working rhythms and heavy workload, the pressure for both intellectual and relational performance often leads to adoption of different strategies to manage stress, increase alertness, improve concentration and to be more productive. In these contexts, coffee stands out as a central resource in everyday work performance management.

Caffeine, the main bioactive compound of coffee, is a psychoactive drug which acts as stimulant of the central nervous system, muscle and heart tissues, and blood pressure control centres (Lozano, García, Tafalla, & Albaladejo, 2007). It is claimed to be effective in reducing tiredness and hunger, in improving mental alertness, memory, mood and focus (Glade, 2010), in enhancing vigilance tasks' performance (Smith, 2002), information-processing (Dórea & da Costa, 2005) and flow of thoughts (Harland, 2000), and in sparking intellectual clarity and creativity (Topik, 2009). Often mentioned within a wide range of cognitive enhancement substances, coffee and caffeine-based products tend to fall into categories such as 'lifestyle drugs' (Schelle et al., 2015), 'soft enhancers' (Maier, Liechti, Herzig, & Schaub, 2013), 'soft stimuli' (Tomažič & Čelofiga, 2019) and 'mild stimulants' (Nehlig, 2010) used to help improve multiple everyday mental and physical activities. While there is still insufficient scientific evidence of efficacy for many of the claims made around caffeine as a 'true' nootropic, and its cognitive enhancing properties are largely associated with its indirect effect on arousal, mood and concentration (Nehlig, 2010), other studies have shown that "caffeine restores decrements in reaction time (Einöther & Giesbrecht, 2013; Souissi, Chtourou, Abedelmalek, Ghozlane, & Sahnoun, 2014) and vigilance (Lorist & Snel, 2008) due to sleep deprivation" (Anderson et al., 2018)).

According to the survey, around 80% of the respondents usually drink coffee on a daily basis. Besides a general appreciation for its taste, the aim of keeping awake during working hours was one of the most mentioned reasons for such a regular use. While most coffee users usually drink between one and two cups (43%) and three to four cups (45%), in some cases the number of intakes can go up to six (10%), or more, in a day. The high consumption (i.e., five or more coffees daily) was particularly expressive among participants who worked for long hours (especially those working 9 to 12 hours a day, 49%), who worked night shifts (77%) and/or who had other complementary professional activities (47%).

Despite some potential negative effects of high coffee use, according to a risk assessment on the safety of caffeine consumption published by the European Food and Safety Association (EFSA, 2015), the daily intake of up to 400mg of caffeine (by non-pregnant adults) does not raise safety concerns. The amount of caffeine in a coffee, however, varies considerably – from 90mg per a 200ml cup of filter coffee to 80mg in a 60ml espresso (EFSA, 2017). Additionally, energy drinks and food supplements – which sometimes are taken alongside regular coffee – can present up to 300mg of caffeine, or range between 50 and 400mg per serving (Bessada, Alves, & Oliveira, 2018), respectively. Therefore, besides going beyond what is considered as a safe daily dose, the high doses of caffeine reported by some of the participants in this study seem to not only exceed the beneficial threshold reported as effective for performance purposes (Outram & Stewart, 2013), but

may also negatively affect the very concerns they aim to address. Nevertheless, caffeine is the psychoactive drug most consumed worldwide (Courtwright, 2001).

The general acceptance of and confidence in such a daily consumption practice by our study participants sometimes contrasted with some reluctance regarding the use of medicines or supplements for similar purposes. Besides the fact that, in certain professional contexts, caffeine may be among the few legally accepted enhancement substances, its use is also often promoted as a productivity booster in many working environments. As different participants in this study mentioned, coffee is always available for free, or at very affordable prices, in their workplaces, which not only legitimates but also encourages a more regular use. It is, therefore, a convenient resource for both employers and employees. Moreover, coffee's ambivalent social status, as both a medicine and a common beverage, or even as a functional food (Dórea & da Costa, 2005), makes it a widely acceptable 'in-between' strategy (Rodrigues, Lopes, & Hardon, 2019) to improve working performance. The importance of such categorizations is also reflected in the potential risks attributed to its use. For example, while concerns with a possible functional dependency on substance use are often attributed to medicines, especially pharmaceuticals, for both therapeutic (Raposo, 2010; Rodrigues, 2016; Stevenson, 2004) and performance (Raposo, 2016; Rodrigues et al., 2019) purposes, the often reported 'need' of a certain daily caffeine dose did not seem to represent a concern.

The widespread use and acceptability of drinking coffee at work has been naturalised as a practice socially rooted in modern societies. As many authors have emphasised, along with their pharmacological properties, coffee is an instrument of social interaction (Yilmaz, 2020) and is highly embedded in many social rituals (Giddens, 1989/2001). One of these institutionalised rituals at workplaces is the 'coffee break', used many times for short pauses at work. Indeed, besides the more 'functional' reasons indicated for drinking coffee, the aim of having a short break during working time was mentioned by more than a third of the survey respondents. The importance of these moments was also stressed in the FGD discussions, as illustrated in the examples below:

> *'I don't actually smoke, but I see coffees and tobacco as the idea of "let's stretch our legs, let's get some air". I drink more coffee because those moments are my break times; I'm going to have a chat with a colleague or go outside to get some sun.' (FGD, Communication)*

> *'Regarding the dynamics of staying awake, I think it's a lot of what the colleague said a while ago: coffee and breaks. "I'm going outside for coffee, I'm going outside to get some air, I'm going outside to see if it's raining". Getting fresh air, leaving that space, that environment, helps us to wake up again.' (FGD, Health)*

As these quotes indicate, the social meanings of 'coffee breaks' during working hours go beyond their pharmacological/chemical benefits. Coffee breaks are often seen as moments to decompress, to stretch out the body, to get fresh ideas and many times to socialise with colleagues. Even when, in such breaks, not everyone is actively involved in drinking coffee, 'coffee sociability at work', as Stroebaek (2013) argued, "is an integral part of workplace culture". Particularly in highly demanding working environments, as those described in this study, such socialising moments create opportunities for colleagues to build on their relationships, both personal and professional. In some cases, such informal interactions may be crucial to exchange work-related ideas and knowledge, but also to informally share working (or personal) challenges and frustrations. Such relational bonds may generate mechanisms to create 'informal collective coping strategies' (Stroebaek, 2013) and may also have a positive impact on productivity (Waber, Olguin, Kim, & Pentland, 2010).

Final remarks

The analysis carried out highlights the idea that the temporal reconfigurations of work are one of the most visible expressions of the increased pressure for professional performance. The intensity and deregulation of working hours and rhythms are, as such, intrinsic characteristics of the imperatives of versatility and productivity that typify the reality of the professional contexts under study. The ensuing implications are concrete and consequential, mainly at the level of the quantity and quality of sleep patterns of workers. As analysed, this is an important aspect, since sleep problems interfere with the requirements of concentration and rapid adaptation imposed by work demands.

In this sense, one of the strategies often adopted to deal with work-related performance pressures (especially intellectual and relational) is the permeability of workers to the consumption of coffee as a drink whose main bioactive (caffeine) facilitates the management of professional imperatives. While coffee is a socially rooted drink, which is a naturalised daily practice, it is also a performative investment, namely when it contributes to keeping workers awake for longer periods of time or with greater concentration. This means, therefore, that the purposes for which coffee is consumed are multiple, surpassing the strict informal domain of breaks and conviviality to the domain of performance management. This purpose is indicative of an openness to the use of coffee as one of the tools for managing increasingly fundamental aspects of professional life.

From this perspective, the discussion around the results herein presented suggests further analytical explorations on the use of caffeine as an intellectual and relational performance enhancer, including comparative approaches to the consumption of the various resources in which this substance is present, including coffee, caffeine capsules or energy drinks, but also pharmaceuticals and food supplements for similar purposes. It is therefore important to explore how social perceptions regarding the legitimacy of resources, as well as their perceived risks and efficacy, shape consumption dispositions and practices.

References

Anderson, J. R., Hagerdorn, P. L., Gunstad, J., & Spitznagel, M. B. (2018). Using coffee to compensate for poor sleep: Impact on vigilance and implications for workplace performance. *Applied Ergonomics*, *70*, 142–147. doi:10.1016/j.apergo.2018.02.026

Bessada, S. M. F., Alves, R. C., & Oliveira, M. B. P. P. (2018). Caffeine-based food supplements and beverages: Trends of consumption for performance purposes and safety concerns. *Food Research International* , *109*, 310–319. doi:10.1016/j.foodres.2018.04.050

Burgard, S. A., & Ailshire, J. A. (2009). Putting work to bed: stressful experiences on the job and sleep quality. *Journal of Health and Social Behavior*, *50*(4), 476–492. doi:10.1177/002214650905000407

Chatzitheochari, S., & Arber, S. (2009). Lack of sleep, work and the long hours culture: evidence from the UK Time Use Survey. *Work Employment And Society*, *23*(1), 30–48. doi:10.1177/0950017008099776

Courtwright, D. T. (2001). *Forces of Habit: Drugs and the Making of the Modern World*. Harvard: Harvard University Press.

Coveney, C. M. (2014). Managing sleep and wakefulness in a 24-hour world. *Sociology of Health & Illness*, *36*(1), 123–136. doi:10.1111/1467-9566.12046

Dórea, J. G., & da Costa, T. H. M. (2005). Is coffee a functional food? *The British Journal of Nutrition*, *93*(6), 773–782. doi:10.1079/bjn20051370

EFSA. (2015). Scientific Opinion on the safety of caffeine. *EFSA Journal*, *13*(5), 4102. doi:10.2805/618813 ISBN 978-92-9199-677-3

EFSA. (2017, September 29). EFSA explains risk assessment: caffeine. Retrieved January 15, 2021, from https://op.europa.eu/en/publication-detail/-/publication/f95da5c1-0070-11e6-b713-01aa75ed71a1

Einöther, S. J. L., & Giesbrecht, T. (2013). Caffeine as an attention enhancer: reviewing existing assumptions. *Psychopharmacology*, *225*(2), 251–274. doi:10.1007/s00213-012-2917-4

Giddens, A. (2001). *Sociology* (4th ed.). Polity Press. (Original work published 1989)

Glade, M. J. (2010). Caffeine-Not just a stimulant. *Nutrition*, *26*(10), 932–938. doi:10.1016/j.nut.2010.08.004

Harland, B. F. (2000). Caffeine and nutrition. *Nutrition*, *16*(7–8), 522–526. doi:10.1016/s0899-9007(00)00369-5

Johnson, J. V., & Lipscomb, J. (2006). Long working hours, occupational health and the changing nature of work organization. *American Journal of Industrial Medicine*, *49*(11), 921–929. doi:10.1002/ajim.20383

Lorist, M. M., & Snel, J. (2008). Caffeine , Sleep , and Quality of Life. In J. C. Verster, S. R. Pandi-Perumal, & D. L. Streiner (Eds.), *Sleep and Quality of Life in Clinical Medicine* (pp. 325–332). doi:10.1007/978-1-60327-343-5

Lozano, R. P., García, Y. A., Tafalla, D. B., & Albaladejo, M. F. (2007). [Caffeine: a nutrient, a drug or a drug of abuse]. *Adicciones*, *19*(3), 225–238. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/17724925

Maier, L. J., Liechti, M. E., Herzig, F., & Schaub, M. P. (2013). To dope or not to dope: neuroenhancement with prescription drugs and drugs of abuse among Swiss university students. *PloS One*, *8*(11), e77967. doi:10.1371/journal.pone.0077967

Nehlig, A. (2010). Is caffeine a cognitive enhancer? *Journal of Alzheimer's Disease: JAD*, *20 Suppl 1*, S85-94. doi:10.3233/JAD-2010-091315

Outram, S., & Stewart, B. (2013). Enhancement drug use in society and in sport: the science and sociology of stimulant use and the importance of perception. *Sport in Society*, *16*(6), 789–804. doi:10.1080/17430437.2012.753529

Raposo, H. (2010). Medicamentos e Pluralismo Terapêutico. Práticas e Lógicas Sociais em Mudança. In N. Lopes (Ed.), *Consumos terapêuticos, percepção e gestão do risco* (pp. 159–222). Porto: Afrontamento.

Raposo, H. (2016). O risco e os consumos de performance na população jovem: entre as conceções e as práticas. *Revista Portuguesa de Saúde Pública*, *34*(2), 186–195. doi:10.1016/j.rpsp.2016.05.003

Rodrigues, C. F. (2016). Medicines and therapeutic pluralism in Maputo: exploring modalities of trust and the (un)certainties of everyday users. *Health, Risk & Society*, *18*(7–8), 385–406. doi:10.1080/13698575.2016.1271403

Rodrigues, C. F., Lopes, N., & Hardon, A. (2019). Beyond health: medicines, food supplements, energetics and the commodification of self-performance in Maputo. *Sociology of Health & Illness*, *41*(6), 1005–1022. doi:10.1111/1467-9566.12880

Rosa, H. (2003). Social acceleration: Ethical and political consequences of a desynchronized high-speed society. *Constellations* , *10*(1), 3–33. doi:10.1111/1467-8675.00309

Schelle, K. J., Olthof, B. M. J., Reintjes, W., Bundt, C., Gusman-Vermeer, J., & van Mil, A. C. C. M. (2015). A survey of substance use for cognitive enhancement by university students in the Netherlands. *Frontiers in Systems Neuroscience*, *9*, 10. doi:10.3389/fnsys.2015.00010

Sennett, R. (2001). *A corrosão do carácter. As consequências do trabalho no novo capitalismo*. Lisboa: Terramar.

Smith, A. (2002). Effects of caffeine on human behavior. *Food and Chemical Toxicology: An International Journal Published for the British Industrial Biological Research Association*, *40*(9), 1243–1255. doi:10.1016/s0278-6915(02)00096-0

Souissi, M., Chtourou, H., Abedelmalek, S., Ghozlane, I. B., & Sahnoun, Z. (2014). The effects of caffeine ingestion on the reaction time and short-term maximal performance after 36 h of sleep deprivation. *Physiology & Behavior*, *131*, 1–6. doi:10.1016/j.physbeh.2014.04.012

Stevenson, F. (2004). Images of nature in relation to mood modifying medicines: a user perspective. *Health*, *8*(2), 241–262. doi:10.1177/1363459304041628

Stroebaek, P. S. (2013). Let's have a cup of coffee! Coffee and coping communities at work: Let's have a cup of coffee! *Symbolic Interaction*, *36*(4), 381–397. doi:10.1002/symb.76

Tomažič, T., & Čelofiga, A. K. (2019). Ethical aspects of the abuse of pharmaceutical enhancements by healthy people in the context of improving cognitive functions. *Philosophy, Ethics, and Humanities in Medicine: PEHM*, *14*(1), 7. doi:10.1186/s13010-019-0076-5

Topik, S. (2009). Coffee as a Social Drug. *Cultural Critique*, *71*(1), 81–106. doi:10.1353/cul.0.0027

Waber, B. N., Olguin, D. O., Kim, T., & Pentland, A. (2010). Productivity Through Coffee Breaks: Changing Social Networks by Changing Break Structure. doi:10.2139/ssrn.1586375

Williams, S. J. (2014). The sociology of sleep and the measure of social acceleration: A rejoinder to Hsu. *Time & Society*, *23*(3), 309–316. doi:10.1177/0961463X14536483

Yilmaz, G. G. (2020). From a commodity to an instrument of social interaction: the sociology of coffee in the United States. In C. Boon, N. Önder, & E. Koç (Eds.), *Food in American Culture and Literature: places at the table* (pp. 26–42). Cambridge: Cambridge Scholars Publishing.