

The peculiarity of thin border between people's chronotypes and the level of labour productivity

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Abstract – The peculiarity of thin border between people's chronotypes and the level of labour productivity is considered. The novelty of this article lies in the new term 'chronotypical discrimination' which is suggested and described. The article also analyzes how to improve the current state of management in Ukraine through labour productivity based on people's chronotypes.

Key words – biorhythm, chronotype, discrimination, labour productivity, schedule, 'lark', 'owl', 'dove', 'employee'.

I. Introduction

It would seem that our society is far advanced in terms of tolerance to dissimilar people. Nowadays, it is very popular to protect national and sexual minorities, to defend women's rights so that they're equal with men's. Furthermore, left-handers are not being retrained any more. There are more than hundreds of such examples. However, still a lot of issues remain unsolved. Meanwhile, all over the world many people are still discriminated - and no one beats the alarm.

In this article we want to represent the problem of chronotypical discrimination based on different biorhythms which influences on people's productivity at work.

II. The main material

The first thing that needs to be highlighted is such term as "biorhythms" in terms of our issue. A person's biorhythm is the propensity for the individual to sleep at a particular time during a 24-hour period. 'Eveningness' (delayed sleep period) and 'morningness' (advanced sleep period) are the two extremes with most individuals having some flexibility in the timing of their sleep period [1].

So, biorhythm is a cyclically recurring pattern of physiological states in an organism or organ, such as alpha rhythm or circadian rhythm; believed by some to affect physical and mental states and behaviour [2].

Biorhythms are the natural monthly fluctuations that govern physical, emotional and intellectual sides of person's development. On the peaks of these sides you will:

- feel physically fit to work on projects requiring physical strength and endurance;
- feel most creative, most loving and warm, and you are probably more open in your relationships;
- be at your most intellectually responsive;
- be open to accepting and understanding new ideas, theories and approaches.

The other side of the coin is, however, that after peaks we always come to the lowest points, when:

- you are likely to have less energy and less vitality. Be sure to follow this cycle if you require physical endurance for either sports or your work;
- you may be very irritated and negative about those things that occur in your everyday life;
- you are more inclined to be withdrawn and less cooperative;
- it is much more likely to have difficulty in grasping new ideas and concepts[3].

The scientists have found that at different and always individual location of biorhythms' peaks people are divided into three chronotypes. Everybody knows that people are divided into early risers, or "larks", and late risers, or "owls", depending on their biorhythms. Sometimes they are also divided into "owls", "larks" and "doves" – evening people, morning people and the intermediary type. If to believe world statistics, nowadays, about 40% of people are 'owls', 'larks' are about 25%, and all others – 'doves'. "Pure" types are only 3%, while the majority of people belong to the "mixed" type.

Genetic early birds will be naturally inclined to go to bed and wake up earlier. They make up roughly a third of the population. 16% of people are genetic night owls; they tend to have later bedtimes and wake times (about an hour after the early birds). And the middle ground have a tendency to wake up "between" the two extremes. It is undeniable that biorhythms can influence people's moods and career-making abilities. The latest studies prove that many mistakes can be avoided if we synchronize our plans to our biorhythms.

Must be said that this world is certainly made up for 'larks' because all living things on the Earth are subordinated to the rhythm of the Sun. People are not an exception. Since ancient times, people have defined their daily activities depending on the Sun. They simply could not afford to sleep in the most favorable time for working. There was, of course, a certain category of people who led an idle life, but we are talking about working class. 'Owls' have appeared recently, after the invention of electricity, and as people became less dependent on sunlight, their number increased.

As the 'lark' is a more natural chronotype, harmonious with the nature, it turns out that it is more beneficial. In addition, the world around us is also arranged under such people. After all, public institutions, shops and many other places start working in the morning, apparently it is based on those who rise early. And this is despite the fact that the majority of people are still 'owls'.

A chronotype is a sleep phenotype that influences people's wake and sleep time. People can affect their sleep habits by changing things like light exposure at day or night, caffeine intake, electronic media consumption, and so on, but the genetic chronotype won't change. It's the baseline, and recent psychological researches confirm this evidence [4].

In some case, people are slaves of their lives. Doubtless, most of us have no choice in our schedules at work. The biggest percent of modern offices are opened

from 8 a.m. to 5 p.m. HR-managers practically never pay attention on subordinate's chronotype. It means that nobody cares whether you are working hard or just attend your work. Despite the fact, that there are a lot of already created chronotype tests. That means that nobody has to invent anything new. It is enough just to use it as a part of habitual practice in companies.

The majority of great people is still required 7-8 hours sleep, albeit at different times of the day. For example, Honore de Balzac was very fond of coffee. He went to sleep at 6 p.m. and slept until 1 a.m. On the other hand, F.S.Fitzgerald was awake until 3:30 in the morning, and then slept until 11. The story goes that Albert Einstein liked to sleep 10 hours a night - unless he was working very hard on an idea; then it was 11. He claimed that his dreams helped him to invent. Also he felt that naps "refreshed the mind" and that they helped him to be more creative. These are just a few examples of some famous doers and their daily schedules [5]. As you can see, their achievements show us that the productivity can't be scheduled.

All processes inside a human body have their own rhythms. Every function, every action starting from the micro level and to the macro level is rhythmical. Biorhythms essentially influence our disposition, how we feel and how we work. For example, Japanese scientists have created special pocket computers that warn their owners of potential biorhythmic effects on their sense of wellbeing. Nevertheless, in our opinion, it is not enough. It makes no sense if you are 'a lark' and you have a night shift at work (they are usually like sleepy flies) or vice versa 'an owl' has to get up very early in the morning and start working.

To improve performance, efficiency of work and labour productivity - it is recommended to take into account chronotype individually for each employee, when planning the calendar, staff work schedules in enterprises – especially air traffic controllers, dispatchers, managers and operators. Moreover, it can significantly reduce the rate of accidents in manufacturing.

On the one hand, company may provide a semifree schedule. It means that everybody should be present at work, for example, since 11 a.m. till 3 p.m. and during the last part of the day employees can be at work whenever they want. The main point is to increase the labour productivity and the overall result of company's performance. The head may also appoint a deadline for the accomplishment of the tasks so that employees can allocate their own time, as they want, but to provide the results of their work on time.

On the other hand, people may solve this problem themselves. For example, they may find out to which type of chronotype they relate to and then try to look for the job according to it.

For 'larks' the best way is to find a job with a traditional schedule: early rise and early return home. This may be the position of a driver, a conductor, a civil servant, a teacher, a cook, a secretary, a baker, a janitor or any office employee.

If you are going to look for a job, being an 'owl' then it is better to choose the position with a free schedule or afternoon schedule - this is the best option. For example, the work of an administrator at a nightclub, a DJ, a waiter, a courier, a guard, a manager in a call center or an IT specialist.

Conclusion

To sum up, chronotypical discrimination is the unjust or prejudicial treatment of different categories of people, especially on the grounds of their chronotype. It is treatment or consideration of, or making a distinction in favor of or against, a person or thing based on the group, class, or category to which that person or thing is perceived to belong to rather than on individual merit. Nowadays, we see that the modern world is made up for 'larks'. That's why we offer to fight against it through 'clever' management. Here are our recommendations:

- to provide a semifree schedule;
- to check people's chronotypes;
- to choose a job according to the chronotype;
- to pay attention on labour productivity.

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