



UNIVERSIDADE
CATÓLICA
PORTUGUESA

**THE ROLE OF WORKING HOURS IN THE DIFFERENCES
AMONG PORTUGUESE, SPANISH AND GERMAN
CULTURAL PATTERNS IN PREDICTING WORK AND
WELLBEING RELATED VARIABLES**

Dissertation submitted to Universidade Católica Portuguesa
to obtain a Master's Degree in Psychology in Business and
Economics

By

Duarte Castelo Branco

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Acknowledgments

Firstly, I would like to thank my close family for providing me with the opportunity of attending the Master's and the emotional support given throughout the course of making this dissertation. Especially, among many others, my father Carlos and my uncle João Nuno.

Right after I would like to deeply thank for the help, feedback, patience, availability and efficacy of my thesis supervisor, Professor Maria Francisca Saldanha, PhD. Without this so needed help none of the body of work presented here would come together. The valuable insights and assistance provided made it a challenging but enjoyable work from which I have learnt and benefited a great deal and that will aid me throughout all my life, including of course in what concerns my career. Thank you also for never letting me lose hope or feel like I was not able to do it.

Also, to the coordinator of the Master's, Professor Joana Carneiro Pinto, PhD, for the effectiveness and celerity in helping me fix problems with the used softwares, as well as for providing the needed information for guiding the dissertation development.

Finally, I would like to thank my colleagues Mariana Bandeira, José Diogo Sotto-Mayor, Julian Berger, Till Tinashli, Samuel Salvador and Inês Cruz for helping me with many very important details, sampling enlargement, ideas, advices and positive views.

To everyone who was key in making this thesis, thank you very much!

Abstract

Recently there has been a trend regarding the reduction of working hours among developed countries (Cygan-Rehm & Wunder, 2018). This because over the years multiple studies on the effect of long average weekly working hours on a variety of work and wellbeing related variables have proven that, in fact working long hours can have negatives effects on one's wellbeing, satisfaction and productivity (Collewet, & Sauerann, 2017), and reductions in working hours generate robust and significant increases in job and leisure satisfaction (Lepinteur, 2018).

Furthermore, the reason for some countries not to implement significant working hours reductions are still yet to be known. In the present study culture is thought to be the reason.

For that same purpose The Hofstede Model (Hofstede, 1980), suggests that cultures can be characterized from the following six Cultural Dimensions: Power Distance, Uncertainty Avoidance, Individualism/Collectivism, Masculinity/Femininity, Long/ Short Term Orientation, and Indulgence/Restraint.

In order to test the hypothesis that working hours have an effect on the relation between culture and some work and wellbeing related variables. A cross-sectional with a non-probabilistic sampling method study was carried out, using an online based questionnaire with 118 participants from Portugal, Germany and Spain. The data was statistically analyzed through correlations and a mediation model using PROCESS (Hays, 2020) in SPSS, where Portugal's, Spain's and Germany's cultural patterns were introduced as the predictor variables, working hours as the mediator and the multiple work and wellbeing related variables as the outcome.

Contrarily, to what was sought the mediation did not occur as there were no statistically significant results in the indirect effects of working hours. Despite this, cultural patterns do seem to have an effect on how working hours regimes are implemented differently in each of the mentioned countries according to their own cultural pattern.

Keywords: Culture; Cross-Cultural; Cultural Patterns; Cultural Dimensions; Hofstede Model; Working Hours; Productivity; Life and Job Satisfaction; Motivation; Absenteeism; Presenteeism

Resumo

Recentemente tem-se notado uma tendência no que toca à redução das horas de trabalho entre os países desenvolvidos (Cygan-Rehm & Wunder, 2018). Isto porque ao longo dos anos vários estudos sobre o efeito de longas horas médias de trabalho semanais numa variedade de variáveis relacionadas com trabalho e bem-estar provaram que, trabalhar longas horas pode ter efeitos negativos no bem-estar, satisfação e produtividade (Collewet, & Sauerann, 2017) e reduções nas horas de trabalho geram aumentos robustos e significativos na satisfação no trabalho e no lazer (Lepinteur, 2018).

Além disso, a razão pela qual alguns países ainda não implementaram reduções significativas nos horários de trabalho ainda não é conhecida. No presente estudo, pensa-se que é a cultura. Como tal, o Modelo de Hofstede (Hofstede, 1980), sugere que as culturas podem ser caracterizadas a partir das seis Dimensões Culturais seguintes: Distância de Poder, Prevenção da Incerteza, Individualismo/Coletivismo, Masculinidade/Feminilidade, Orientação a Longo/Curto Prazo, e Indulgência/Restrição.

A fim de testar a hipótese de que as horas de trabalho têm um efeito sobre a relação entre a cultura e variáveis de trabalho e bem-estar. Foi realizado um estudo transversal com um método de amostragem não-probabilístico, utilizando um questionário online com 118 participantes de Portugal, Alemanha e Espanha. Os dados foram analisados estatisticamente através de correlações e de um modelo de mediação utilizando a PROCESS (Hays, 2020) no SPSS, onde os padrões culturais de Portugal, Espanha e Alemanha foram introduzidos como as variáveis predictoras, as horas de trabalho como mediador e as variáveis de trabalho e bem-estar como variáveis dependentes.

Ao contrário do que se pretendia, a mediação não ocorreu, pois não houve resultados estatisticamente significativos nos efeitos indiretos das horas de trabalho. Apesar disto, os padrões culturais parecem ter um efeito na forma como os regimes de horário de trabalho são implementados de forma diferente em cada um dos países mencionados, de acordo com o seu próprio padrão cultural.

Palavras-chave: Cultura; Transcultural; Padrões culturais; Dimensões culturais; Modelo de Hofstede; Horas de trabalho; Produtividade; Satisfação com a vida e o trabalho; Motivação; Absentismo; Presenteísmo

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1. Introduction

Working hours have been a major topic of discussion over the last few years due to its influence on multiple work and wellbeing related variables, including, productivity, life and job satisfaction, and motivation, among others (Pencavel, 2015). Research has focused on strategies corporations can adopt in order to provide the best results possible. Results can be seen as positive from two main perspectives – a utilitarian perspective (whereby good results tend to be viewed as production/output-related enhancements) or a more holistic perspective (that is, more related to an overall good performance and wellbeing).

Recently, a general trend towards shorter weekly working hours has been witnessed over the years. Between 1970 and 2015, Western countries experienced a decrease in the average working time by approximately 11% (OECD, 2017 cit. in Cygan-Rehm & Wunder, 2018). This declining trend is to some extent induced by legal workweek reductions, usually introduced to mitigate unemployment with the argument of work-sharing among workers (Goux et al., 2014). Another very important incentive to shorten the workweek is to protect and improve the quality of life and health of workers (Lee et al., 2007). Indeed, current evidence suggests that reduced working hours generate significant and robust increases in employees' job and leisure satisfaction (Lepinteur, 2018), and long hours can have negative effects such as high fatigue, burnout, excessive stress, reduced satisfaction, insomnia and decreased productivity and general wellbeing (Collewet, & Sauerann, 2017).

Different types of factors come into place when considering working hours' policies and its effects. One factor regarding the implementation of working hours' policies that has not had as much attention as it should or could is the cultural aspect of a society. Understanding how working hours affect productivity, labor satisfaction and overall wellbeing can have a great impact on businesses' management and regulation (Collewet, & Sauerann, 2017), and the influence that cross-cultural differences can have on these effects is not well known.

Models like the Hofstede Model, proposed by Geert Hofstede (1980), have sought to characterize culture. In this model, six dimensions of national cultures are presented: Power Distance, Uncertainty Avoidance, Individualism/Collectivism, Masculinity/Femininity, Long/Short Term Orientation, and Indulgence/Restraint. Countries differ regarding their relative positioning on each dimension (Hofstede, 2011). Having different scores on the dimensions means that there are societal (values and ideals), and managerial and political (law and policy) differences across countries. In other words, a specific score on a specific dimension

translates into specific creeds and behaviors, ultimately resulting in the way a specific society is structured and managed. So, differences in the levels attributed to various countries generate differences in, for example, weekly working hours establishment, and these differences may influence specific aspects of people's lives, such as the work and wellbeing related variables mentioned above.

The purpose of the present study is to assess how culture relates to specific work and wellbeing related variables through the indirect effect of working hours. Specifically, this study investigates whether working hours offer an explanation for the potential effect of culture in predicting important work and wellbeing related variables. By finding out if working hours mediate the relation between cultural dimensions and work and wellbeing variables it is possible to outline some discrepancies that may have either negative or positive effects on how people work and on how they feel towards their job and life. As mentioned earlier, average weekly working hours' reductions are taking place more and more over the years. However, some cultures may have characteristics that make their society more hesitant and disinclined to change. Developing a better understanding of these matters may be helpful in highlighting that in many ways change can be a positive thing, in particular if successfully implemented with the objective of improving the quality of life of people, as well as to enhance and increase the output of a society.

2. Literature Review

2.1. Working Hours

To help contextualize this subject it is key to deepen the concepts through a review of the academic literature on the topic. One of the main focusses of this research is the concept of Working Hours (WH).

Taking into consideration current policy in Portugal, there is a distinction among Working Hours (WH), Working Time, and Operating Period. Working Hours (WH) refers to the determination of the start and end times of the normal daily working period and of the rest interval, as well as the weekly rest period (Article 200. Labour Code - Law nr. 7/2009. Official Gazette no. 30/2009, Series I of 2009-02-12). Working Time is deemed to be any period during which the worker carries out the activity or remains attached to the performance of the service, as well as some specific interruptions (Article 197. Labour Code - Law nr. 7/2009. Official Gazette no. 30/2009, Series I of 2009-02-12). Finally, Operating Period is understood as the daily period of time during which the business can exercise its activity (e.g., a café or a notaries' office that is open from 9am to 7pm) (Article 201. Labour

Code - Law nr. 7/2009. Official Gazette no. 30/2009, Series I of 2009-02-12). It is incumbent on the employer to determine the worker's working hours, within the limits of the law, namely the applicable opening hours regime. When drawing up the working schedule, the employer shall - Take into consideration, as a priority, the requirements of protection of the worker's safety and health; make it easier for the worker to conciliate work with family life; and make it easier for the worker to attend school as well as technical or vocational training courses (Article 212. Labour Code - Law nr. 7/2009. Official Gazette no. 30/2009, Series I of 2009-02-12).

Recent data indicates that there are different policies and regulations concerning working hours across different countries in the European Union (EU). As of 2020, EU's average number of weekly working hours was 31.3 hours per week (6.26 hours p/day - 5 days a week). Portugal's average is higher than that of the EU with an average working week of 36.4 working hours (i.e., 7.28 hours p/day - 5 days a week, 2019 data). In contrast, Germany has an average working week of 26.6 working hours (5.32 hours p/day - 5 days a week, 2019 data) (Pordata, 2021). Among the 27 countries in the EU (EU27), Portugal stands as the sixth country working more hours weekly, while Germany stands as the second country working less hours weekly in 2019 (Pordata, 2021). In addition, Portugal has, on average, an additional 4.6 weekly hours than the average working hours in the EU27, and an additional 9.3 average weekly hours than Germany (more than an entire working day). Somewhat between Portugal and Germany there is Spain with an average number of weekly working hours of 30.3 hours per week, which is closer to EU's average (Pordata, 2021).

The focus on these countries is not random. Portugal is known not to be economically prosperous especially during the 21st century, however, it has been and is one of the countries to register most hours worked in general. In contrast, Germany has shown an exponential decrease in their average weekly working hours policies and has been a country that across history has restored itself from multiple crisis situations (Hampton, 2000) and is now, and for some time, a reference of industrial and economic power in Europe and all over the world (Bulmer & Paterson, 2010; Kielinger & Otte, 1993).

In what concerns the focus on Spain, the only borders Portugal has besides the ocean are with Spain. Historically and presently, Portugal and Spain have unique but at the same time somewhat similar cultural traits as, among other reasons, they both are Latin-European countries. Nevertheless, Spain has been a major economic forerunner, despite also experiencing severe economic and social crises. Investigating some possible reasons for these

differences seems to be something that, once well studied and deepened, could improve the way organisations are run and the lives of their workers.

Interestingly, the levels of Labour Productivity per Hours Worked for each of the earlier mentioned countries are very distinct. This measurement is applied as follows: “*Labour productivity per hour worked is calculated as real output per unit of labour input (measured by the total number of hours worked).*” (Eurostat, 2021). In this regard, Portugal has an average Labour Productivity Per Hour Worked value of 75.9 (2018) (less 22,6 points than the EU27 average of 100). On the other hand, Germany has an average Labour Productivity Per Hour Worked value of 105.8 (2018) (Eurostat, 2021). Also, Spain presents an average Labour Productivity Per Hour Worked value of 97.9 (2019), closer to the EU’s average value of 100 and to Germany’s value (albeit with almost 8 points of difference; Eurostat, 2021). A similar pattern is revealed by data from the Organisation for Economic Co-operation and Development (OECD), the countries that work more hours are the less developed ones, for example Portugal, Turkey, or Greece. On the other hand, the more developed countries work less hours, for example Germany, The Netherlands, or Luxemburg (Kallis, Kalush, Flynn, Rossiter, & Ashford, 2013). Here, the measure of “development level” is based on the same Labour Productivity Per Hour Worked measure. Taken together, current data suggest that, at an aggregate level, there appears to be a link between lower working hours and higher level of Labour Productivity Per Hour Worked (Collewet, & Sauermaann, 2017).

In conventional economic theory, workers determine how much effort they are willing to put in working depending on the advantages presented by the institution, including of course monetary and other compensations (e.g., company car, health insurance, etc.). These same individuals also make this decision considering, among other factors, their working time, such that they can eventually match their desired working schedule with their real working hours. When this does not happen these individual face what is called hours constraints (Sousa-Poza, & Henneberger, 2002).

Taking this into account, controlling for socio-demographic and working conditions related variables, Portugal, Greece, Bulgaria, and Slovenia (among others) are amongst the countries in which workers find more constraints towards working hours and income-related issues. Meaning, people there are displeased as they work more time than they wished and earn less than what they think they deserve. In contrast, in Germany, the Netherlands, Denmark, and Switzerland (among others) people tend to be more pleased with their actual working time. That is, less developed countries show lower satisfaction towards their

working hours than more developed countries. Interpreting the reason(s) for these differences is not obvious, but extremely relevant, as these same working hours have an effect on a variety of work and wellbeing related variables. For example, cultural and institutional dissimilarities between these countries may be important contributing factors (Sousa-Poza, & Henneberger, 2002). Although it seems reasonable to suggest that cultural differences underlie all aspects regarding these disparities among countries, little is known and found on contemporary academic literature concerning the influence of culture on working hours, which can be beneficial because of the effect that these same working hours have on a variety of variables related with workers' wellbeing, satisfaction, motivation and productivity. Therefore, it becomes key to understand how culture relates to working hours.

2.2. Cross-Cultural Differences

Culture has been defined as *“the collective programming of the mind that distinguishes the members of one group or category of people from others”* (Hofstede, 2011, p. 3). While different models of culture exist, the Hofstede Model, proposed by Geert Hofstede (1980), has been widely accepted by the scientific community, with multiple empirical studies over the years supporting its reliability (e.g., Hofstede, 1981, 1983; Hofstede, et al., 1990; Hofstede, 2006, 2009, 2011). Thus, it was the model selected for use in this dissertation.

The model proposes six dimensions of national culture: Power Distance, Uncertainty Avoidance, Individualism/Collectivism, Masculinity/Femininity, Long/ Short Term Orientation, and Indulgence/Restraint. These dimensions reflect important attributes of culture, and allow comparison of possible discrepancies and similarities across cultures. For each country, a specific level is assigned for each of the six dimensions (Hofstede, 2011). The scale ranges from 0-100, with a value of 50 as the mid-point of the scale. Thus, scores above 50 suggest a relatively high level of a certain dimension, while scores below 50 suggest a relatively low level of a certain dimension.

The first scores were recorded by IBM between 1967 and 1973, encompassing more than 70 countries of which only the top 40 were used. This was then expanded to 50 countries and 3 regions. Since 2001's edition of Geert Hofstede's work, partly based on replications and extensions of the IBM study on different international populations, scores are now listed for 76 countries and regions (Hofstede-Insights, 2021).

The first dimension is called Power Distance (PD) and is described as the degree to which the less powerful elements of institutions and organisations (such as the family) expect

and accept that this power is distributed unevenly. As the author would put it, “*This represents inequality (more versus less), but defined from below, not from above. It suggests that a society's level of inequality is endorsed by the followers as much as by the leaders.*” (Hofstede, 2011, p. 9). Table 1 demonstrates the most relevant differences between the different aspects of this dimension.

Table 1.

Ten differences between small and large power distance societies

Small Power Distance	Large Power Distance
Use of power should be legitimate and is subject to criteria of good and evil	Power is a basic fact of society antedating good or evil: its legitimacy is irrelevant
Parents treat children as equals	Parents teach children obedience
Older people are neither respected nor feared	Older people are both respected and feared
Student-centered education	Teacher-centered education
Hierarchy means inequality of roles, established for convenience	Hierarchy means existential inequality
Subordinates expect to be consulted	Subordinates expect to be told what to do
Pluralist governments based on majority vote and changed peacefully	Autocratic governments based on co-optation and changed by revolution
Corruption rare; scandals end political careers	Corruption frequent; scandals are covered up
Income distribution in society rather even	Income distribution in society very uneven
Religions stressing equality of believers	Religions with a hierarchy of priests

Note. Source: Hofstede, G. (2011). Dimensionalizing Cultures: The Hofstede Model in Context. *Online Readings in Psychology and Culture*, 2(1). doi:10.9707/2307-0919.1014

The second dimension is called Uncertainty Avoidance (UA). Differently from risk avoidance, it addresses the level of tolerance of a specific society towards ambiguity. Specifically, when unstructured situations are encountered, different cultures feel more or less comfortable with it. These kinds of situations are considered a novelty, unfamiliar,

surprising, unknown, unexpected, and unusual. A society might feel equipped or not do deal with these sorts of circumstances. When a (relatively) high level of UA is present, a way of minimizing eventual uncertain conditions is to impose strict rules, codes, behavioral conducts and laws; as well as to disapprove any kind of deviation from these same strict codes. Additionally, there is a belief in an indisputable and absolute truth that guides a society to supposedly more moral decisions that end up avoiding uncertainty (Hofstede, 2011). Table 2 demonstrates the most relevant differences between the different aspects of this dimension.

Table 2.

Ten differences between weak and strong uncertainty avoidance societies

Weak Uncertainty Avoidance	Strong Uncertainty Avoidance
The uncertainty inherent in life is accepted and each day is taken as it comes	The uncertainty inherent in life is felt as a continuous threat that must be fought
Ease, lower stress, self-control, low anxiety	Higher stress, emotionality, anxiety, neuroticism
Higher scores on subjective health and well-being	Lower scores on subjective health and well-being
Tolerance of deviant persons and ideas: what is different is curious	Intolerance of deviant persons and ideas: what is different is dangerous
Comfortable with ambiguity and chaos	Need for clarity and structure
Teachers may say 'I don't know'	Teachers supposed to have all the answers
Changing jobs no problem	Staying in jobs even if disliked
Dislike of rules - written or unwritten	Emotional need for rules - even if not obeyed
In politics, citizens feel and are seen as competent towards authorities	In politics, citizens feel and are seen as incompetent towards authorities
In religion, philosophy and science: relativism and empiricism	In religion, philosophy and science: belief in ultimate truths and grand theories

Note. Source: Hofstede, G. (2011). Dimensionalizing Cultures: The Hofstede Model in Context. *Online Readings in Psychology and Culture*, 2(1). doi:10.9707/2307-0919.1014

Another dimension of the Hofstede Model is Individualism-Collectivism (I-C). This dimension characterizes cultures into Individualistic or Collectivistic depending on the extent to which its members organize themselves into groups. Specifically, in an Individualistic society people are expected to look after themselves or their close family, there are no strings attached between individuals other than what was just mentioned. On the other hand, in a Collectivistic society individuals tend to be part of specific and somewhat enlarged in-groups since birth and for the great part of their life, if not all. In these types of societies, individuals are educated to be loyal to their in-group and even to oppose other groups. The author mentions that this is a very fundamental dimension that regards all countries in the world and has great effect on how these operate and function (Hofstede, 2011). Table 3 demonstrates the most relevant differences between the different aspects of this dimension.

Table 3.

Ten differences between collectivist and individualist societies

Individualism	Collectivism
Everyone is supposed to take care of him-or herself and his or her immediate family only	People are born into extended families or clans which protect them in exchange for loyalty
"I" - consciousness	'We" - consciousness
Right of privacy	Stress on belonging
Speaking one's mind is healthy	Harmony should always be maintained
Others classified as individuals	Others classified as in-group or out-group
Personal opinion expected: one person one vote	Opinions and votes predetermined by in-group
Transgression of norms leads to guilt feelings	Transgression of norms leads to shame feelings
Languages in which the word "I" is indispensable	Languages in which the word "I" is avoided
Purpose of education is learning how to learn	Purpose of education is learning how to do
Task prevails over relationship	Relationship prevails over task

Note. Source: Hofstede, G. (2011). Dimensionalizing Cultures: The Hofstede Model in Context. *Online Readings in Psychology and Culture*, 2(1). doi:10.9707/2307-0919.1014

The fourth dimension of this model is Masculinity-Femininity (F-M). This dimension addresses specific values attributed to both of these genders. Research suggests that women differ less from society to society in terms of values than men do – thus, men's values end up defining the polarity of this dimension. They differ more from women by being more assertive and competitive, and so more “masculine”, or more similar to women by being more modest and caring, and so more “feminine”. Meaning that women in countries that fit the “feminine” profile are as caring and modest as the men. Contrarily, women in countries so called “masculine” are fairly competitive and assertive, but often not as much as men. This is a dimension that can generate some controversy by the names and titles used, however it has been shown to be indispensable to compare cultures (Hofstede, 2011). Table 4 demonstrates the most relevant differences between the different degrees of this dimension.

Table 4.

Ten differences between feminine and masculine societies

Femininity	Masculinity
Minimum emotional and social role differentiation between the genders	Maximum emotional and social role differentiation between the genders
Men and women should be modest and caring	Men should be and women may be assertive and ambitious
Balance between family and work	Work prevails over family
Sympathy for the weak	Admiration for the strong
Both fathers and mothers deal with facts and feelings	Fathers deal with facts, mothers with feelings
Both boys and girls may cry but neither should fight	Girls cry, boys don't; boys should fight back, girls shouldn't fight
Mothers decide on number of children	Fathers decide on family size
Many women in elected political positions	Few women in elected political positions
Religion focuses on fellow human beings	Religion focuses on God or gods

Matter-of-fact attitudes about sexuality; sex is a way of relating	Moralistic attitudes about sexuality; sex is a way of performing
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Note. Source: Hofstede, G. (2011). Dimensionalizing Cultures: The Hofstede Model in Context. *Online Readings in Psychology and Culture*, 2(1). doi:10.9707/2307-0919.1014

The fifth dimension is Long/Short-term orientation (LTO-STO). It portrays the extent to which every society maintains some ties with its own past while addressing the challenges of the present and future. Normative societies, which are cultures that stand on specific ideas and norms, and so score low on this dimension, view sudden societal changes suspiciously as they may interfere with long lasting traditions and cultural norms. Contrariwise, countries that score high on this dimension keep an open mind to the future and are supporters of new pragmatic strategies for possible societal changes, for example a more modern and contemporary approach to education with an eye on the future (Hofstede, Hofstede, & Minkov, 2010). As one could foresee this is a key dimension regarding progress, as well as economic and societal prosperity, where countries with low scores show a slow or inexistent economic growth and vice-versa (Hofstede, 2011). Table 5 demonstrates the most relevant differences between the different degrees of this dimension.

Table 5.

Ten differences between short- and long-term oriented societies

Short-Term Orientation	Long-Term Orientation
Most important events in life occurred in the past or take place now	Most important events in life will occur in the future
Personal steadiness and stability: a good person is always the same	A good person adapts to the circumstances
There are universal guidelines about what is good and evil	What is good and evil depends upon the circumstances
Traditions are sacrosanct	Traditions are adaptable to changed circumstances
Family life guided by imperatives	Family life guided by shared tasks
Supposed to be proud of one's country	Trying to learn from other countries
Service to others is an important goal	Thrift and perseverance are important goals

Social spending and consumption	Large savings quote, funds available for investment
Students attribute success and failure to luck	Students attribute success to effort and failure to lack of effort
Slow or no economic growth of poor countries	Fast economic growth of countries up till a level of prosperity

Note. Source: Hofstede, G. (2011). Dimensionalizing Cultures: The Hofstede Model in Context. *Online Readings in Psychology and Culture*, 2(1). doi:10.9707/2307-0919.1014

Lastly, the most recent dimension is Indulgence versus Restraint (I-R). This dimension can be said to be more or less complementary of the last one mentioned (LTO-STO) and it is weakly negatively correlated to it. Specifically, it covers aspects that are not present on the other dimensions. A society called indulgent is one that enables a fairly free satisfaction of basic human desires related to the enjoyment of life and leisure. On the contrary, a restrained society would be one that controls these gratifications of needs and regulates them by applying strict moral and normative social codes of conduct (Hofstede, 2011; Hofstede-Insights, 2021; Hofstede, Hofstede, & Minkov, 2010). Table 6 demonstrates the most relevant differences between the different degrees of this dimension.

Table 6.

Ten differences between indulgent and restrained societies

Indulgence	Restrained
Higher percentage of people declaring themselves very happy	Fewer very happy people
A perception of personal life control	A perception of helplessness: what happens to me is not my own doing
Freedom of speech seen as important	Freedom of speech is not a primary concern
Higher importance of leisure	Lower importance of leisure
More likely to remember positive emotions	Less likely to remember positive emotions
In countries with educated populations, higher birthrates	In countries with educated populations, lower birthrates

More people actively involved in sports	Fewer people actively involved in sports
In countries with enough food, higher percentages of obese people	In countries with enough food, fewer obese people
In wealthy countries, lenient sexual norms	In wealthy countries, stricter sexual norms
Maintaining order in the nation is not given a high priority	Higher number of police officers per 100,000 population

Note. Source: Hofstede, G. (2011). Dimensionalizing Cultures: The Hofstede Model in Context. *Online Readings in Psychology and Culture*, 2(1). doi:10.9707/2307-0919.1014

2.3. Cultural Dimensions and Its Influences

As mentioned before, the scores for each dimension for each country analyzed can change a little¹ bit over time. However, changes typically occur very slowly (Roque, et al., 2017). In any case, only the most recently available results will be analyzed. All scores were retrieved from Hofstede-Insights website as of 2021.

When it comes to the Power Distance (PD) dimension, Portugal has a score of 63, a relatively high level of PD, as well as Spain, which presents a median-to-relatively-high score of 57. According to Table 1, these values reflect a hierarchical distance which is widely accepted. Specifically, the extent to which there is some degree of inequality, meaning most powerful positions are admitted to have some privileges just because of the position they are in, is accepted by others. “The administration is in control”, and every order that comes from a higher chain of command has to be followed through by the subordinates and expected by the latter, meaning these expect bosses to tell them what to do (Hofstede, 2011; Hofstede-Insights, 2021; Hofstede, Hofstede, & Minkov, 2010; Jesuino, 2007). This suggests that in order to please managers subordinates may see the time spent working as a form of compliance, meaning working more hours stands for being a better worker/employee. This suggests that individuals get attached to the those with authority and do not expect a change in their working hours despite the number of hours being somewhat large (i.e., long weekly working hours).

On the other hand, Germany presents a PD score of 35, a relatively low level of this dimension. Managers are seen as equals to subordinates, meaning hierarchies exist but in

¹ Concerning the statements present on Table 1., Table 2., Table 3., Table 4., Table 5., and Table 6.: “The statements refer to extremes; actual situations may be found anywhere in between the extremes, and the association of a statement with a dimension is always statistical, never absolute.” (Hofstede, 2011, p. 10). This applies to all six cultural dimensions.

terms of roles established for convenience and subordinates expect to be consulted. Also, interestingly, as mentioned before, the number of working hours in Germany is far lower than in Portugal and Spain; this may imply that by working together leaders and subordinates value efficacy and efficiency and so using less time to do certain things effectively is valued, as well as free time and leisure for both the employer and the employee, which connotes that less working hours are needed and appreciated.

With regard to Uncertainty Avoidance, when looking at the Portuguese landscape, one could suggest that Uncertainty Avoidance (UA) clearly defines the country since it presents itself with a score of 99 – specifically, there is a considerably high preference for avoiding ambiguity and uncertainty. Not too far from this just mentioned score is Spain, which has a score of 86 in this same dimension, also a considerably high score. Countries displaying high UA keep strict behavior and creed codes and are extremely intolerant to new ideas and unorthodox behaviors. These cultures tend to take the quote “Time is Money” literally – that is, not in the sense of not wasting it, but meaning more time equals more money, which is not necessarily true (Hofstede, 2011; Hofstede-Insights, 2021; Hofstede, Hofstede, & Minkov, 2010; Jesuino, 2007). However, this idea of a structured society that comes as a characteristic of countries scoring high on this dimension is not exactly suitable for neither Portugal nor Spain. The Portuguese are people used to “improvise” (Jesuino, 2007; Koopman, et al., 1999), coming in accordance to what is shown on Table 2, more specifically “emotional need for rules – even if not obeyed”. The Spanish also struggle with the structuring of their society as, among other reasons, there is no political and territorial consensus (Coller, Jaime-Castillo & Mota, 2018). However, countries which perceive themselves as less structured are more likely to be less productive and less competitive and thus less prosperous in terms of growth and consumption (Jesuino, 2007). This suggests that in these countries people tend to work more time in order to have more success and compensation, despite eventually getting it or not (because of the unstructured society).

In contrast, Germany scores around 65 in this dimension. While this is not a low score in absolute terms, keeping in mind the low level of Power Distance (35) earlier mentioned, Germans prefer to rely on their own expertise to deal with uncertainty and not so much on higher chains of command, making them less dependent which ultimately shows some tolerance in dealing with ambiguity. Nonetheless, when it comes to the structuring of the German society it can be said to be very organized and methodical where each individual plays an important role (Litvin, Crotts, & Hefner, 2004). This indicates that countries with

lower levels of UA may prefer to work less hours because of what is mentioned in Table 2., that is, people value freedom in the way others and themselves structure their lives.

In what concerns Individualism-Collectivism (I-C), countries which score higher on Individualism tend to be more developed and Western countries, while those who score higher on Collectivism tend to be less developed and Eastern countries. However, Portugal, in comparison to the rest of the other European countries can be said to be a Collectivist society, scoring 27 in this dimension. Specifically, Portugal evidences long-term commitment to in-group, which can be close or distant family (like aunts, uncles and cousins), friends, or any other strong group relationship. Loyalty stands out as the main value, and looking out for the members of one's group is imperative. To offend one's group, in general, leads to adverse, unfavorable, and pessimistic feelings and is very frowned upon. In management, things like hiring and promotions are based on the employee's in-group, meaning management itself is the management of groups (Hofstede, 2011; Hofstede-Insights, 2021; Hofstede, Hofstede, & Minkov, 2010; Jesuino, 2007). This suggests that more hours are needed as they have to depend on others. Work is carried in groups and the individuals belonging to those groups comply to the pre-existing rules of that same group, even as far as working hours are concerned.

In contrast, Germany and Spain are said to be more Individualistic societies as they score 67 and 51, respectively, on this dimension and these are said to be relatively high scores. In societies with high I-C scores everyone is expected to look after themselves and their immediate family only. Personal achievement is very well regarded and so, in management, hiring and promotions are based on one's merit only. The employer, when making decisions like those earlier mentioned expects a mutual advantage in doing so, meaning management is the management of individuals. The basis of loyalty is founded on personal preferences in addition to a higher sense of responsibility and duty. (Brodbeck, & Frese, 2007; Hofstede, 2011; Hofstede-Insights, 2021; Hofstede, Hofstede, & Minkov, 2010). This may imply that personal time is taken more seriously and so, working less hours makes it easier to fulfil this need, which ultimately could have resulted in significant reductions on weekly working hours.

The next dimension listed on the Hofstede Model is Long-term orientation as opposed to Short-term orientation. This is a key dimension when defining a specific culture as it exerts a great deal of influence in a country's economic development.

Portugal is known to be a country with a lot of history and long-lasting traditions (Jesuino, 2007) and this is reflected in the fact that it scores 28 in this dimension, meaning it

is a Short-term oriented culture (that is, it is a culture more focused on the past rather than the future). Spain can also be said to be a relatively short-term oriented culture, as they also present a relatively low score on this dimension (48). As mentioned before, as a normative rather than a pragmatic society, long-lasting traditions are highly respected, there is a great concern in instituting the absolute truth and a greater interest in achieving quick results rather than a propensity for saving for the future (Hofstede, 2011; Hofstede-Insights, 2021; Hofstede, Hofstede, & Minkov, 2010; Jesuino, 2007). This suggests that values and traditions in general are the same as they were quite a long time ago, especially when it comes to organizational culture. Specifically, even when the circumstances change, people are expected to behave the same as before. More hours may thus still be seen as more work, so longer working hours regimes are applied, similarly to as they were before. Even if there are changes, these may be quite insignificant.

On the other hand, countries like Germany, which scores 83 in this dimension, is said to be a long-term oriented society. The truth depends on the situation and context and it may not be absolute; people are more pragmatic and open to societal change (Hofstede, 2011; Hofstede-Insights, 2021; Hofstede, Hofstede, & Minkov, 2010). This suggests that new and appreciated values and ideals come into place, namely in the organizations. Changes are made in order to improve the quality of the work itself and of the lives of workers. And so, when less working hours are proposed while maintaining the same (or better) output, the probability of acceptance is higher leading to lower weekly working hours regimes.

In the next dimension, Indulgence vs. Restraint, countries which demonstrate low scores can be said to be “restrained”. Such can be said to be true for Portugal as it scores 33 on this dimension. According to the author, this means that the Portuguese society also does not emphasize the importance of leisure time, gratification and compensation as they feel restrained by present social norms. Having a “restrained” culture implies that in terms of motivation and therefore productivity, a society with a tendency for having negative feelings towards the future does not have good prospects and might not produce as much output as it could (Hofstede, 2011; Hofstede-Insights, 2021; Jesuino, 2007). This indicates that long working hours are prevalent as the importance of leisure time, gratification and compensation are not emphasized. Also, in order to avoid negative feelings, there may be a tendency to comply the existing norms and rules, namely when it concerns working hours policies; in order to maintain the *status quo* no or only small changes are made and long working hours regimes prevail.

In this same dimension Germany and Spain both present median-to-relatively-low scores (40 and 44, respectively), suggesting that it is also a “restrained” culture (Hofstede, 2011; Hofstede-Insights, 2021; Hofstede, Hofstede, & Minkov, 2010;). However, they are less restrained than Portugal. A less restrained society is closer to an indulged one. In the latter leisure is given a very high importance, as well as “*a perception of personal life control*” (Hofstede, 2011, p. 16), as mentioned in Table 6., so, in order to have a pleasing and happy life, less working hours are preferred.

Lastly, this is a dimension that presents some discrepancies regarding the scores attributed to the mentioned countries. This dimension is labeled, Femininity-Masculinity, meaning a high score stands for Masculinity and a low score for Femininity. Portugal scores 31 and Spain 42. Meaning they are a so-called “feminine” country, where consensus is the key word and excessive competition and polarization is not very well accepted or appreciated. There is an added value in doing what one likes rather than being the best at something. Moreover, people value the quality of their working life and incentives like flexibility and free time are preferred. This somewhat lack of competitiveness and desire to excel is reflected on a short economic growth over the years. However, at a societal level, compromise and negotiation are taken very seriously and a more peaceful and friendly atmosphere is created not only in the everyday relationships but also in organizations. Of course, this is not the rule at an individual level, yet it can be said to be a consistent pattern on a more general societal level (Hofstede, 2011; Hofstede-Insights, 2021; Hofstede, Hofstede, & Minkov, 2010; Jesuino, 2007). In this dimension a clear discrepancy is possible to observe as it contradicts the patterns and characteristics of other dimensions such as Power Distance and Uncertainty Avoidance, in which both Spain and Portugal score high, and Indulgence-Restraint, where they score lower. However, by following the scores for this specific dimension (i.e., Masculinity- Femininity) these countries should value free time, work-life balance and flexibility, and so, thrive for shorter working hours.

Other countries that score higher on this dimension are said to be more “masculine”, like Germany for example, with a score of 66. This is a country highly focused on performance, competition, achievement, execution and presentation. This is reflected in terms of output, where Germany ends up being a very strong economic power. At a societal level, people might seem more distant from each other and more assertive with each other than, for example, most Latin cultures (e.g., Portugal, Spain, Italy, etc.) (Hofstede, 2011; Hofstede-Insights, 2021; Hofstede, Hofstede, & Minkov, 2010). This suggests, again in a contradictory manner, that this should be a country where people, especially men, are really assertive with

each other and women are not usually seen in power positions. Not only that, but it also implies that regimes with more working hours would be preferred. This because in accordance to the other dimensions with similar characteristics to this one, like Power Distance and Uncertainty Avoidance on the high scores side and Indulgence-Restraint on the low scores side, this position regarding working hours would be what to expect.

In trying to connect these six cultural dimensions to working hours' policies or trends, intensive research was carried out on these subjects. However, and unfortunately, this research only uncovered academic papers on each of the subjects separately – in other words, it was not possible to find research on the relationship between working hours and cultural dimensions according to the Hofstede Model. Nevertheless, by analyzing different working hours' policies from different countries, a pattern appears to emerge where countries with higher or lower scores in some dimensions tend to work more or less hours.

Having this in mind, and keeping in mind what the dimensions are and how they differ across countries, it is expected that a certain level of a particular dimension influences the number of hours spent at work, more specifically the number of working hours per week. It is important to note that the actual weekly hours' schedule may differ from individual to individual, even if these are from the same country and work in similar jobs. However, fellow countrymen, who are assumed to share the same scores in the cultural dimensions of this model, should on average share similar working schedules. For this very reason, it is hypothesized that certain levels of certain dimensions predict more or less weekly working hours (this assuming that the scores for each dimension for each individual is the same as their country's score for that same cultural dimension). And as it was possible to see, certain elaborate cultural patterns arise shared by Portugal and Spain which in turn differ from that of Germany. To illustrate these patterns, Figure 2 is present in the appendix section and shows the score for each country on each dimension and their similarity levels according to those same scores.

H1: Power Distance (a), Uncertainty Avoidance (b), Collectivism (c), Masculinity (d), Short-term Orientation (e), are positively related to the number of hours worked, while Indulgence (d) is negatively related to number of hours worked.

2.4. Work and Wellbeing Related Outcome Variables

For the specific purpose of this study it is essential to analyze how differences in working hours and in cultural dimensions impact variables like productivity, motivation and

satisfaction. The following section will include a brief and concise description, based on contemporary academic literature, of several key work and wellbeing related variables that are affected by variations in both working hours and culture, namely Productivity, Satisfaction and Motivation.

2.4.1. Productivity and Task Performance

Productivity, which is a wide-ranging topic that can be fairly difficult to describe, is generally defined as the relationship between input and output, meaning how much output can one produce per unit of input (this of course concerning many different circumstances and applied to several contexts; Tangen, 2002). A notion that was already mentioned and defined before is that of Labour Productivity per Hours Worked, which stands for a nation's level of output depending on the hours worked. At the organization level, productivity can be linked to profitability on an aggregated level, but when talking about individual's productivity, the focus is on results. As one could imagine, productivity levels are extremely difficult to assess both at an aggregated level (e.g., country, company, etc.) and at an individual level (as an employee). Regarding the latter, this kind of evaluation is often done with a holistic approach, meaning comparing one's concrete performance results and performance reviews from one's superiors, peers and a self-evaluation (Haynes, 2007). Nevertheless, this is not possible to do in the context of this study, so a different approach to assess individual performance as productivity was needed.

Taking into account that a person either works for a company or for him/herself, the level of successful performance is dependent on the objectives of either the firm or the self-employed individual. And so, a productive worker is one that behaves and acts in order to meet the goals of the organization, this can be called the Individual Work Performance (IWP) (Koopmans et al., 2014). This is an evaluation made by the individual him/herself concerning various aspects which will be further explained.

In the field of organizational psychology, in which this study is integrated, there are three main dimensions when appraising one's performance – task performance, contextual performance, and counterproductive work behaviour. The first and the last will be the focus of this study. The first dimension is Task Performance, which can be defined as “*the proficiency with which individuals perform the core substantive or technical tasks central to his or her job*” (Gosselin, Lemyre, & Corneil, 2013, p. 125). This is often assessed via one's

own appreciation of his/her own work (self-evaluation), and can be said to be most meaningful measure of productivity. Contextual Performance is defined as “*behaviors that support the organizational, social and psychological environment in which the technical core must function*” (Gosselin, Lemyre, & Corneil, 2013, p. 125). Finally, Counterproductive Work Behaviour is defined as “*behavior that harms the well-being of the organization*” (Gosselin, Lemyre, & Corneil, 2013, p. 125). This dimension of performance integrates facets of Presenteeism and Absenteeism, among others that are beyond the scope of this study (e.g., being an aggressive person, non-sociable, etc.; Gosselin, Lemyre, & Corneil, 2013).

Absenteeism is when employees have an unscheduled absence and Presenteeism is when employees are present but are not actually working. For example, absenteeism can be not showing up for work when sick and presenteeism can be showing up for work while sick. Thus, both are counter-productive, and higher levels of these two different phenomena lead to the same negative results concerning one’s performance and the organization’s productivity (Gosselin, Lemyre, & Corneil, 2013).

2.4.2. Life and Job Satisfaction

When it comes to one’s wellbeing, satisfaction is one of the most commonly used variables. Among other kinds of satisfaction used in contemporary research, Life and Job Satisfaction stand out as some of the most relevant. Life Satisfaction refers to cognitive judgmental process where individuals set their own standard of what a “good life” is and compare their own experience with that same internally imposed standard. So, Life Satisfaction can be defined as “*a global assessment of a person’s quality of life according to his[/her] criteria*” (Shin & Johnson, 1978, p. 478). Satisfaction can also be assessed within specific domains of one’s life, like health, finances, and love, amongst others. However, Satisfaction With Life (SWL) concerns a broader point of view where individuals are the ones who choose to, or not to, integrate specific domains in their own subjective assessment of their satisfaction with current life according to their own context (Diener et al., 1985). In contrast, Job Satisfaction is a cognitive process derived from one’s comparisons of current existing job attitudes to an individual’s own frame of reference, concerning the existing disparities between what one expects and what the job offers – in other words, it refers to the extent to which the job fulfils the needs, desires and wants (related to specific job aspects) of an individual (Spector, 1985).

2.4.3. Motivation at Work

Motivation is also a very broad and complex term that can be applied to multiple contexts, whether the subject is sports, education, work, etc. Human motivation is highly established among specific needs and wishes. Basic needs, like the need for food and shelter can be interpreted as motivators to a certain action (Gagné, et al., 2010). As in all kinds of motivation, there are two main dimensions, intrinsic and extrinsic (Gagné, et al., 2010). The first refers to the self, motivators are present within the subject and his/her actions are motivated by their own subjective will, wants and needs (e.g., working because of the greater meaning of the work one is doing, playing sports because one enjoys and feels good doing so, investing money because one wants to become financially independent, etc.). The second regards external motivators present in the context in which the subject is and accounts for motivators such as working for money, competing in sports for trophies, buying something that is in sales or with discounts, among others (Gagné, et al., 2010).

The degree to which the regulation of motivation is internalized and controlled is also quite relevant. Specifically, an external regulation refers to acting a certain way in order to obtain a certain reward or avoid punishment, and so is completely external. Introjected regulation regards behavior regulation that stands on self-worth, as it is a relatively controlling form of motivation where behaviors are regulated by internal pressures or sanctions that are either directed towards avoiding a punishment (e.g., shame and guilt) or getting a reward (e.g., pride and ego enrichment). Subsequently, there is identified regulation, which refers to engaging in an activity because of its meaning or value, which connotes to connecting it to one's own goals, and so it is an internalized regulation and also a relatively controlling form of motivation. Lastly, integrated regulation is when someone identifies him/herself with the value of an activity to the point it becomes an individual's habitual functioning and part of one's sense of self, meaning it becomes autonomous and so it is a fully internalized regulation (Gagné, et al., 2010).

In the context of organizational behavior, Motivation at Work (MAW) is particularly important, as it related to specific organizational and work-related dimensions.

2.5. Hypotheses

Contemporary research suggests a negative correlation and a direct link between working long hours and variables like productivity, satisfaction, well-being, and motivation (Ganster, Rosen, & Fisher, 2016; Pencavel, 2015; Sato, Kuroda, & Owan, 2020; Schein, Maurer, & Novak, 1977). Specifically, working more hours can have negative effects on

one's physical and psychological health, increasing the likelihood of fatigue and stress-related problems to emerge (Cygan-Rehm, & Wunder, 2018; Ganster, Rosen, & Fisher, 2016; Sato, Kuroda, & Owan, 2018). To add to this, long working hours are also correlated with burnout (Hu, Chen, & Cheng, 2016) and the increase of risk of psychovegetative health impairments (i.e., the generic term for all functional health disorders caused by stress or mental strain) (Wirtz, & Nachreiner, 2010).

Moreover, reduced working hours generate robust and significant increases in job and leisure satisfaction and ultimately in life satisfaction (Lepinteur, 2018), meaning both employer and employee's work-life balance increases as working hours decrease (Shagvaliyeva, & Yazdanifard, 2014). Furthermore, as mentioned above, fatigue plays an important role, and so if it increases because of extended working hours regimes, productivity decreases (Collewet, & Sauermann, 2017). In contrast, countries that work less hours present better productivity levels (Wingender, 2018). Also, there is a high positive correlation between flexible working hours (i.e., part time, long term leaves, job sharing, flexitime and shift work; which are working arrangements which often involve less hours) than fulltime employment, and employees' motivation (Ahmad, Idris, & Hashim, 2013; Chung & Tijdens, 2012).

Bearing this in mind, contemporary relevant literature on these relationships indicates a direct link among some of the variables, all but Presenteeism, Absenteeism and when differentiating from intrinsic and extrinsic motivation. However, as mentioned before, Long Working Hours not only is negatively related to physical and psychological health but also can cause high levels of fatigue among workers; and these are two relationships that contribute to the increase of both Presenteeism and Absenteeism (Gosselin, Lemyre, & Corneil, 2013). Moreover, more tiredness and a weakened health often have negative effects on Intrinsic Motivation, as the individual feels unable to fulfil his/her needs, wants and wishes (Herlambang, Cnossen, & Taatgen, 2021; Van-Yperen, & Hagedoorn, 2003). So, a direct relation is hypothesized.

H2: Working Hours is negatively related to Life and Job Satisfaction, (self-perceived) Productivity/Performance, Intrinsic Motivation and negatively related to Extrinsic Motivation, Presenteeism and Absenteeism

Having this theoretical framework in mind, a mediation model is suggested. Specifically, if the Cultural Dimensions of the Hofstede Model (2010) are expected to predict

the number of weekly working hours, and these are expected to relate with key work-related variables (i.e., job and life satisfaction, task performance, presenteeism and absenteeism, and intrinsic vs. extrinsic motivation at work), it is likely that the Cultural Dimensions predict different outcomes of the work-related variables, mediated by the associated weekly working hours. However, differences among countries instead of the multiple Cultural Dimensions will be tested in this mediation model, as visible in Figure 1. This is because, as mentioned earlier, each country represents a specific and complex pattern regarding the various cultural dimensions. Thus, the following hypothesis is proposed:

H3: The Portuguese (a) and Spanish (b) cultural patterns have a negative indirect effect on Job and Life Satisfaction, Task Performance (productivity), and Intrinsic Motivation at Work, via the number of weekly working hours.

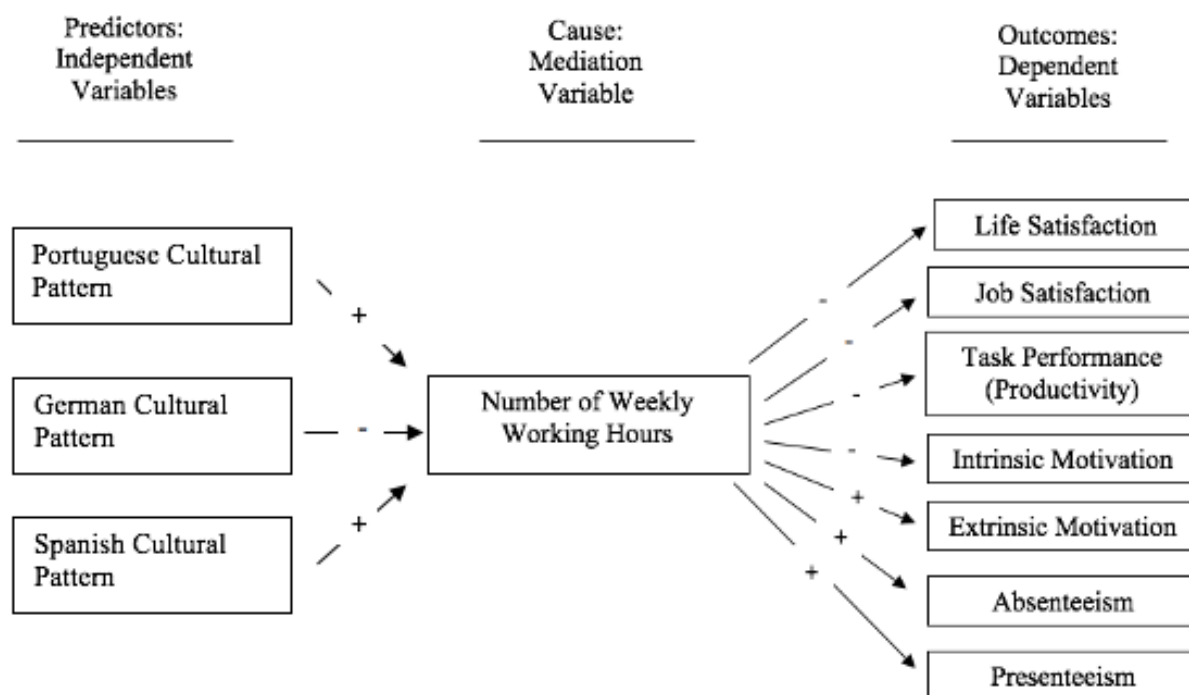
H4: The Portuguese (a) and Spanish (b) cultural patterns have a positive indirect effect on Presenteeism, Absenteeism, and Extrinsic Motivation at Work, via the number of weekly working hours.

H5: The German cultural pattern (c) has a positive indirect effect on Job and Life Satisfaction, Task Performance (productivity), and Intrinsic Motivation at Work, via the number of weekly working hours.

H6: The German cultural pattern (c) has a negative indirect effect on Presenteeism, Absenteeism, and Extrinsic Motivation at Work, via the number of weekly working hours.

Figure 1.

Mediation model of the effects of average weekly in the relation between cultural patterns and work and wellbeing related variables



3. Method

3.1. Study Design and Data Collection Procedure

The present project is an online survey-based study, meaning the data was collected via an online questionnaire using the survey platform Qualtrics XM. Moreover, this study can also be considered a cross-sectional one, implying that it involves collecting data from a specific point in time (Olsen & St George, 2004). Cross-sectional studies are particularly appropriate for appraising the prevalence of specific behaviors and are usually cheap, quick and easy to perform (Sedgwick, 2014).

Using two non-probabilistic sampling methods, participants were recruited through Convenience and Snowball sampling – that is, participants were contacted either directly by the researcher or by other participants or people of interest, via social media, survey platforms, and direct messaging (Facebook, LinkedIn, Instagram, WhatsApp, Survey Circle and SMS), both nationally and internationally. The questionnaire was open to everyone,

however, only the answers of those who met the inclusion criteria were used. The inclusion criteria were as follows: participants must be able to read, speak and understand English (as it is intended to have multiple nationalities, the survey was only available in English); participants must be full-time employed at the moment, this last because as work related variables are being assessed only those who are currently working are fitted to be evaluated, not only that but also, regarding average weekly working hours, general patterns for full-time employed individuals are sought, in view of the fact that people who would work in part-time or that did not work a full working week would contaminate the sample by having working schedules that do not fit general patterns. (participants who indicated that they were not employed full-time at the beginning of the questionnaire were automatically sent to the end of the survey and screened out after being thanked for their interest and time); and participants must agree to participate in the study and to the use of their data for research purposes after reading the informed consent statement (see below for further information). No geographic restrictions were applied, as a culturally diverse sample was intended. However, as mentioned before, participants from Portugal Spain and Germany were the most desirable for the purpose of this study, and so most contacting was made in this direction. Participants had to read and agree to proceed according to an Informed Consent specifically developed for this study.

The questionnaire was available for a period of about 6 months, more specifically from May 5th (2020) to October 25th (2020).

3.2. Ethical Procedures

At the beginning of the questionnaire, participants were provided with an Informed Consent statement, specifically designed for this study, containing relevant information about the project, the anonymity and confidentiality terms, and the contacts of the researcher. Participants were informed that they could withdraw from the study at any moment if they wished to; and that their data would not be used for research purposes if that was the case (thus, participants who did not complete the questionnaire until the end were removed from the sample, as this response pattern was interpreted as participants exercising their right to withdraw from the study). After reading the informed consent statement, individuals had to agree/not agree to participate in the survey. In case they did not agree they were automatically sent to the end of the survey and screened out.

3.3. Socio-demographics

After the informed consent statement, there were multiple sociodemographic questions and some work-related questions related to the theme of this research. For a better characterization of the sample, variables like age, gender, type of job, and salary were assessed.

To find out about the Cultural Dimensions, participants were asked about the country where they were born, and about the country where they currently lived and for how long. The specific scores for each cultural dimension were attributed to each participant according to the answers to this last question (Hofstede-Insights, 2021), it was also assumed that the country where they currently live was the country where they worked. This strategy was adopted because the average weekly working hours of each participant were likely not self-proposed but rather imposed by their working contract, which are typically in accordance to the contractual policies of the country in which they are working/based. Thus, the specific scores for each of the cultural dimensions of the Hofstede Model were attributed to each participant according to the country they lived in during the course of this study.

With working hours being a major factor in this research, there were questions concerning the average weekly working hours (WH) for each participant. Here, participants were asked how many hours did they work on average per week and how many hours they wish they would work on average per week.

3.4. Instruments

As mentioned before, the questionnaire for this study was assembled in Qualtrics XM. This questionnaire contained a variety of items/questions concerning the variables in scope. Whenever possible, pre-validated scales were used.

Life Satisfaction was measured with the Satisfaction With Life Scale (SWLS) (Diener, et al., 1985), which is a scale composed of 5 items specifically designed to measure global cognitive judgments of an individual's own satisfaction with life. According to a 5-point Likert-scale ranging from 1 – “strongly agree” to 5 – “strongly disagree”, participants had to indicate to what extent did they agree or not with the statements on each of the 5 items (sample item: “So far I have gotten the important things I want in life.”). According to the literature regarding its development, this scale presented good levels of internal consistency and high temporal reliability (Diener, et al., 1985). To score high in this scale means that one is satisfied with most aspects of his/her life.

Job Satisfaction was measured with the Job Satisfaction scale (Cammann et al., 1983; Saks, 2006). This scale is composed by 3 items regarding one's overall feelings of satisfaction towards their job (e.g., "All in all, I am satisfied with my job"). Past research indicates that the scale has good levels of reliability (Sacks, 2006). Participants had to answer in a Likert-scale from 1 to 5 where 1 meant "strongly disagree" and 5 "strongly agree". One item in this scale had to be recoded and inverted since it was an item presented in a negative way while all the others were presented in a positive way (e.g., "In general, I do not like my job" as opposed to "In general, I like working where I work"). To score high on this scale means one is generally satisfied with his/her job.

Task performance was assessed with a 7 item sub-scale of the Individual Work Performance Questionnaire (Koopmans et al., 2014). This scale consists of three different but related dimensions, Task Performance, Contextual Performance and Counterproductive Work Behavior. As the goal of using the questionnaire was to assess self-perceived productivity at work, the focus was only on the Task Performance dimension. Participants had to evaluate their own proficiency with which they perform the core tasks inherent to their specific job. The response was again given in a Likert-scale from 1 to 5, where 1 was "Never" and 5 "Always." Sample items include "I manage to plan my work so that it is done on time" and "I am able to perform my work well with minimal time and effort." The authors suggest that the scale has good psychometric properties (Koopmans et al., 2014, p. 128). To score high on this scale means one considers him/herself to be a productive worker.

Presenteeism was assessed with the Stanford Presenteeism Scale (SPS-34). More specifically, 6 particular items (SPS-6) of the original 34 item scale were used. These 6 items were identified and found to be key by the authors as they specifically describe Presenteeism (Koopman et al., 2002). The authors identified excellent psychometric characteristics for the six-item scale (Koopman et al., 2002). Once again individuals had to answer in a Liker-scale from 1 to 5, where 1 was "strongly disagree" and 5 "strongly agree". Items of this scale looked like the following ones "When I feel unwell, the stresses of my job are much harder to handle" and "Despite feeling unwell, I am able to finish hard task in my work. Three items had to be recoded and inverted (i.e., 1 = 5, 2 = 4, 3 = 3, 4 = 2, 5 = 1) after the data was collected for any statistical analysis on this variable. To score high on this scale would mean a high level of Presenteeism, that is, a smaller ability to concentrate on and accomplish work despite being confronted with a health issue.

Absenteeism was measured with the Illegitimate Absenteeism sub-scale developed by Frooman and colleagues (2006). The full scale comprises Legitimate and Illegitimate

Absenteeism, and consists of a 6-item scale to determine employees' agreement or disagreement with their own self-reported reasons for using sick leave. In terms of internal consistency, it presents a relatively low Cronbach's alpha values of 0.57, only for the Illegitimate Absenteeism items (i.e., the ones used on the analysis), which the authors justify as follows: "*Though this second Cronbach's alpha was on the low side of what is generally accepted, illegitimate absenteeism was retained as a variable in this study for two reasons. First, for exploratory work, such as this, lower alphas are considered acceptable (Nunnally, 1978); and second, for scales with fewer items, such as this one, there is greater reliability than the reliability coefficient can indicate, because the coefficient is a function of the number of items in a scale (Cortina, 1993).*" (Frooman, Mendelson, & Murphy, 2006, p. 454). In this scale the response type was again a Likert-scale from 1 to 5, where 1 was "strongly disagree" and 5 "strongly agree" (e.g., "Sick time can be used for personal obligations"). As mentioned above, only the items regarding illegitimate absenteeism were used in the statistical analysis since they are the ones which represent the classical definition of this variable. To score high on this scale means one has a high level of Absenteeism (i.e., one illegitimately absents him/herself from work).

Motivation, more specifically Motivation at Work, was assessed with the Motivation at Work Scale (MAWS) (Gagné et al., 2010). This scale is composed of five items for each of the following subscales: external regulation, introjection, identification, and intrinsic motivation, meaning there was a total of 20 items which were ultimately trimmed down to 12. However, for the objectives of this study only two of the four subscales were used, namely, external regulation (extrinsic motivation) and intrinsic motivation. The authors of the scale report Cronbach's alpha reliability values of 0.69 and 0.89 for each of these subscales. As argued by the authors "*Out of eight alpha coefficients (four subscales in two languages), only two (introjected and extrinsic subscales in English) are below the standard of .80 (Henson, 2001; Nunnally and Bernstein, 1994) but near the standard of .70 provided by Nunnally (1978).*" (Gagné et al., 2010, p. 637). For answering this question participants had to choose from a Likert-scale from 1 to 5 to what degree did the statements correspond to the reasons for which one works (e.g., "For the moments of pleasure that this job brings me" (Intrinsic Motivation); "I do this job for the paycheck" (Extrinsic Motivation)). These subscales will be further analyzed separately as they constitute two different constructs. To score high on these scales means one feels like he/she is either intrinsically or extrinsically motivated to work.

Originally most items were presented in the past tense, where participants had to think about their past 3 or 6 months, however, here it was supposed to reflect a nearer present time so each item was changed from past tense to present tense and the language adapted for better and easier understanding of the English language (e.g., items like “I managed to plan my work so that it was done on time” were changed to “I manage to plan my work so that it is done on time”).

3.5. Participants

In order to characterize the sample in question, descriptive statistics were carried out regarding the earlier mentioned socio-demographic variables and other relevant factors for the study. Initially the sample was composed of 248 participants, however, after analyzing the inclusion criteria several participants were removed from the sample. Specifically, participants who were not full time employed at the moment and those who did not complete the full questionnaire were excluded. Participants with the same IP address were narrowed down and analyzed. If the demographics were the same, the first valid response to the survey was be used, as the second response was considered a duplicate. If the demographics were different, this suggested that there were different people in the same computer/house who responded to the questionnaire, so all valid responses were used (valid here means the participant completed the final version of survey and fitted in the inclusion criteria). This reduced the sample to 128 participants.

After this, some participants from various countries were also screened out. This was because the intention was to compare groups of individuals that were attributed specific scores for each Cultural Dimension, however, if these groups were not formed by a significant number of individuals (greater than two) , the statistical assessments would not be meaningful (Tabachnick, Fidell, & Ullman, 2020). In this case, only groups containing 10 or more people were considered for statistical analysis. This meant that the only groups to be considered were people based either in Portugal, Germany or Spain; the rest of the participants were screened out and not included in statistical analysis.

The final number of participants was 118. In terms of age it ranged from 19 until 66 years old, with a mean age of 28.79 years old and a mode of 23 years old (n = 20; f = 19.4%), however, there were a total of 15 missing values on this item –When it comes to gender, 38.1% (n = 45) of the sample were male and 60.2% (n = 71) were female, with another 1.7% (n = 2) who did not identify with either gender (Non-binary / third gender). Moreover,

concerning the country-of-origin and the country where participants were based at the time of the survey.

In terms of the country where participants lived at the time of the survey, most participants were based in Portugal (about 47.7% of the sample, $n = 61$), then in Germany with 32% of the sample ($n = 41$), and then in Spain with 8.6% ($n = 11$).

In terms of the average weekly working hours (WH) of the sample, most of the participants seem to work long hours (LH) as the mode is 40 hours per week ($n = 33$, 28%) (median also 40 hours per week i.e., $\tilde{x} = 40.00$) and the mean is very similar ($\bar{x} = 41.4831$ hours per week ($\sigma = 7.33764$)). The minimum was 24 hours per week ($n = 5$; 4.2%) and the maximum was 60 hours per week ($n = 1$; 0.8%). Note that the second and third number of WH most common among the sample are 45 hours per week ($n = 13$; 11%) and 50 hours per week ($n = 11$; 9.3%), respectively.

4. Data Analysis

All the results of the survey were comprised in an IBM SPSS Statistics 26.00 database. All psychometric and statistical data analysis were carried out also using IBM SPSS Statistics 26.00.

In order to assess the scales used in terms of internal consistency (i.e., number of items that ask about and measure the same thing), reliability tests were carried out. Specifically, the Cronbach's α (i.e., Cronbach's alpha) was used. This measure of internal consistency estimates the correlation between the true score and measured one (Streiner, 2003). There are specific values of the Cronbach's α measure results that indicate how good the internal consistency of the scale is. It is said to be excellent (for high-stakes testing) when it is greater than or equal to 0.9, good (for low-stake testing) it is greater than or equal to 0.8 and less than 0.9, acceptable when it is greater than or equal to 0.7 and less than 0.8, questionable when it is greater than or equal to 0.6 and less than 0.7, poor when it is greater than or equal to 0.5 and less than 0.6, and unacceptable when it is less than 0.5 (Streiner, 2003). However, an alpha with a value greater than 0.95 may indicate that there are items that are too correlated and so they are measuring the same thing (Streiner, 2003). Changes in the direction of specific items of some scales may need to be done in order to have the same direction across all items (i.e., all positive or all negative). This happened with some of the scales in this study, as it was already mentioned in the section prior to this one.

Additionally, bivariate Pearson correlations were done in order to determine the relationships between variables, specifically, their strength (from 0 to 1) and the direction of these relationships (i.e., positive or negative, that is, from -1 to 1).

Furthermore, in order to test the hypotheses, including the mediation model mentioned in the end of the Literature Review section, PROCESS version 3.5 developed by Andrew F. Hayes (2020) was used in IBM SPSS Statistics 26.00. A simple mediation model (i.e., Model 4 in PROCESS version 3.5) was tested in order to test the effects of: Cultural Patterns (CP) in average weekly working hours (WH); WH in work and wellbeing related variables; and the indirect effect of CP in the work and wellbeing related variables via WH. The main goal of a mediation model is to identify processes or mechanisms that explain relationships between variables – in this case, WH were hypothesised to be the mechanisms of the relationship between CP and the various work and wellbeing related variables.

5. Results

5.1. Psychometric Analysis of the Scales

Regarding the psychometric analysis carried out in this study, as mentioned before Cronbach's α was calculated as a measure of internal consistency for all scales. These were pre-validated scales, however, it is always key to test both the unchanged scales and the adapted ones regarding the specific sample at issue.

The Satisfaction With Life Scale (SWLS), which was used as a whole, equal to the original one (Diener, et al., 1985), presented very good levels of internal consistency with a Cronbach's α value of 0.856. Moreover, the scale referent to the Job Satisfaction variable exhibited a Cronbach's α value of 0.787, an acceptable level of internal consistency. In addition, the Task Performance scale (Saks, 2006) demonstrated an internal consistency closer to what are considered good values, specifically, it displayed a Cronbach's α value of 0.794. Furthermore, as mentioned, the Motivation at Work Scale was divided into two separate variables. The subscale related to Extrinsic Motivation at Work showed a Cronbach's α value of 0.771, again, an acceptable level of internal consistency. On the other hand, the subscale related to Intrinsic Motivation at Work presented close-to-excellent values of internal consistency, with a Cronbach's α value of 0.899.

The Sandford Presenteeism Scale failed to show such good internal consistency values, as it presented a Cronbach's α value of 0.668. While this is a comparatively lower value, at least two arguments support the use of the scale in this study. First, according to Hair, Black, Babin and Anderson (2010), Cronbach's alpha values above 0.60 have been

considered acceptable when conducting exploratory research, while for confirmatory research the minimum value for acceptance is 0.70. This study itself is not considered exploratory, nonetheless, as the scale was adapted from the original one (i.e., the scale originally assessed specific health conditions, and measured if people could maintain a good performance at work if sick rather than the level that people go to work when sick and end up not working as well as they could, in accordance to the classical definition of Presenteeism), the usage of the scale can be considered exploratory and its value is not very far from 0.70. Second, the item-total statistics did not indicate any particular item as undermining internal consistency. In that sense, the suggestion is using it as is. Lastly, regarding the Illegitimate Absenteeism Scale, this was also a scale which presented very low values of internal consistency (i.e., Cronbach's $\alpha = 0.435$). However, similarly low values were also found by the authors of the scale themselves, who have argued that this is only a two-item scale, which can affect internal consistency- specifically, the reliability coefficient is calculated in function of the number of items in a scale (Froome, Mendelson & Murphy, 2006). Moreover, the scale represented the classical definition of Absenteeism and so it was very much needed for the analysis. The final decision was thus to keep this two-item scale, however with caution as it does not present good values of internal consistency.

5.2. Correlation Matrix

The correlation matrix included the work and wellbeing related variables included in the study. In order for the correlations to be statistically significant the p value has to be equal to or less than 0.05 (i.e., $p \text{ value} \leq 0.050$), meaning the correlation value is significant for 95% or more of the cases.

Contrarily to what was expected, the correlations between Average Weekly Working Hours (WH) and the work and wellbeing related variables were not statistically significant. Nevertheless, all relationships showed close-to or negative values, hinting that more hours worked appear to be connected to worst levels of the outcome variables.

Some correlations among the various Cultural Dimensions (CD) and WH showed significant values. Namely, as expected, Power Distance (PD) correlated positively and weakly with WH ($r = 0.253$, $p = 0.006$). This statistically significant correlation indicates that countries with higher levels of PD like Portugal or Spain tend to work more hours per week. Furthermore, Individualism-Collectivism (I-C) negatively and weakly correlated with WH ($r = -0.215$, $p = 0.019$), suggesting that countries that show a lower score on this dimension and therefore identify themselves as Individualist, such as Germany, tend to work less hours than

those who present higher scores. Moreover, the correlation between Uncertainty Avoidance (UA) and WH also presented weak but statistically significant positive values ($r = 0.238$, $p = 0.009$), implying that countries like Portugal and Spain, which score high on this dimension, are more prone to work more hours. In addition, when it comes to the next CD which is Masculinity-Femininity (F-M), similarly to I-C, it weakly and negatively correlated with WH ($r = -0.245$, $p = 0.008$), which indicates that countries which score higher on this dimension and so identify as “masculine” tend to work more hours compared to those whose scores are that of a “feminine” culture. The CD that follows, which is Indulgence-Restraint (I-R), is not related to the increase or decrease of WH, meaning differences in the scores in I-R do not explain differences in WH, this because it presented a correlation that was not statistically significant ($r = -0.097$, $p = 0.298$). The last CD, which is Short/Long-term Orientation (S-LTO), negatively and weakly correlated to WH ($r = -0.240$, $p = 0.009$), suggesting that countries like Portugal and Spain which score low on this CD, and so are considered Short-term oriented cultures, tend to work more hours.

Regarding the work and wellbeing variables, as expected Satisfaction With Life (SWL) showed a statistically significant and positive correlation with Job Satisfaction (JS) ($r = 0.383$, $p = 0.000$), Task Performance (TP) ($r = 0.410$, $p = 0.000$), Intrinsic Motivation at Work (IM) ($r = 0.427$, $p = 0.000$), Extrinsic Motivation at Work (EM) ($r = 0.235$, $p = 0.011$). This suggests that people who are satisfied with their lives are more likely to also be satisfied with their job, and more likely to perform better at work. Additionally, as satisfaction with life increases the likelihood of being intrinsically motivated at work increases too, such as the likelihood of extrinsic motivation at work. Next, Illegitimate Absenteeism (IA) correlated negatively and significantly with TP ($r = -0.279$, $p = 0.003$), suggesting that people who engage in more illegitimate absence tend to evaluate their productivity as worse. Moreover, Presenteeism (PP) was significantly and negatively correlated to JS ($r = -0.279$, $p = 0.002$), implying that people who go to work but cannot perform to the full extent of their capabilities (i.e., are not productive) tend to be less satisfied with their jobs. In addition, JS was positively correlated with TP ($r = 0.327$, $p = 0.000$); this statistically significant correlation indicates that people who perceive themselves as productive workers tend to be more satisfied with their job. Also, the correlation between JS and IM was statistically significant ($r = 0.610$, $p = 0.000$), indicating that people who are more intrinsically motivated at work tend to be more satisfied with their jobs. This suggests that the sample in this study is, on overall, aligned with the patterns that have been found in contemporary academic literature on these relations

(Ali & Anwar, 2021; Mafini & Dlodlo, 2014; Rahman, Fatema, Ali, 2019; Riyanto, Endri & Herlisha, 2021).

5.3. Hypotheses Testing

In the mediation model, Portugal's cultural pattern was used as the indicator as it was the group with most participants ($n = 61$, where total $n = 118$).

When it comes to the direct effect of Cultural Patterns (CP) in WH, when comparing Portugal's CP (PT) with Germany' CP (DE) the coefficient obtained was $b = - 3.69$, $t_{(114)} = - 2.60$, $p = 0.011$, controlling for Spain's CP (ES). This effect was statistically significant. However, when controlling for DE, PT and ES showed no statistically significant differences ($b = 2.06$, $t_{(114)} = 1.09$, $p = 0.274$).

Regarding the first analysis, it tested the indirect effect of CD on SWL via WH. None of the effects were statistically significant (i.e., all p-values were greater than 0.05). Regarding the direct effects of CP on SWL, when comparing PT and DE, and PT and ES, the values obtained were $b = 0.25$, $t_{(113)} = 1.69$, $p = 0.094$ and $b = - 0.05$, $t_{(113)} = - 0.22$, $p = 0.829$, respectively. Regarding the direct effect of WH in SWLS, the result was $b = 0.002$, $t_{(113)} = 0.18$, $p = 0.857$. The effect of CP in SWL, not accounting for WH, was also not significant when comparing PT with both DE and ES ($b = 0.24$, $t_{(114)} = 1.70$, $p = 0.091$ and $b = - 0.05$, $t_{(114)} = - 0.20$, $p = 0.842$, respectively). Mediation did not occur since there was no indirect effect as the mediation result was as follows: Indirect Effect (PT and DE) = -0.006, $SE = 0.038$, 95% CI [-0.09; 0.07]; Indirect Effect (PT and ES) = 0.004, $SE = 0.034$, 95% CI [-0.09; 0.06].

The second analysis tested the indirect effect of CP on JS via WH. Regarding the direct effect of CP in JS, when comparing PT and DE the result was $b = 0.36$, $t_{(113)} = 2.24$, $p = 0.027$, which is statistically significant. However, when comparing PT and ES no statistically significant differences were found ($b = 0.30$, $t_{(113)} = 0.11$, $p = 0.909$). Moreover, concerning the direct effect of WH on JS, this was again a statistically non-significant result ($b = 0.003$, $t_{(113)} = 0.32$, $p = 0.745$). In addition, the effects of CD on JS, disregarding WH, were statistically significant when comparing PT with DE, $b = 0.35$, $t_{(114)} = 2.23$, $p = 0.01$; however, when comparing PT with ES the effects were not statistically significant ($b = 0.04$, $t_{(114)} = .149$, $p = 0.881$). Finally, no indirect effects and therefore no mediation occurred (Indirect Effect (PT and DE) = -0.012, $SE = 0.043$, 95% CI [-0.11; 0.07]; Indirect Effect (PT and ES) = 0.008, $SE = 0.039$, 95% CI [-0.07; 0.09]).

The third analysis tested the indirect effect of CP on TP via WH. When it comes to the direct effects of CP in TP, these were also results that were not statistically significant when comparing both PT with DE and PT with ES ($b = -0.05$, $t_{(112)} = -0.45$, $p = 0.655$ and $b = 0.10$, $t_{(112)} = 0.58$, $p = 0.560$, respectively). Also, the direct effect of WH in TP was statistically non-significant, $b = -0.001$, $t_{(112)} = -0.17$, $p = 0.862$. Furthermore, regarding the effects of CP in TP ignoring WH, these were once more not statistically significant results, comparing either PT with DE or PT with ES ($b = -0.042$, $t_{(113)} = -0.42$, $p = 0.676$ and $b = 0.095$, $t_{(113)} = 0.57$, $p = 0.57$, respectively). There was also no significant indirect effect: Indirect Effect (PT and DE) = 0.005, $SE = 0.035$, 95% CI [-0.06; 0.07]; Indirect Effect (PT and ES) = -0.003, $SE = 0.03$, 95% CI [-0.07; 0.05].

The fourth analysis tested the indirect effect of CP on Presenteeism (PP) via WH. When analyzing the direct effects of CP in PP, comparing PT with DE the result was $b = -0.29$, $t_{(112)} = -2.72$, $p = 0.008$, which is a statistically significant result. On the other hand, when comparing PT with ES a statistically non-significant result was obtained ($b = 0.08$, $t_{(112)} = 0.46$, $p = 0.649$). Similarly, the direct effect of WH in PP was also not statistically significant ($b = -0.009$, $t_{(112)} = -1.31$, $p = 0.193$). Also, when not accounting for WH, CP presented statistically significant effects on the SPS-6 when comparing PT and DE, whereas when comparing PT with ES results were statistically not significant ($b = -2.60$, $t_{(113)} = -2.46$, $p = 0.015$ and $b = 0.06$, $t_{(113)} = 0.32$, $p = 0.749$, respectively). Once again, mediation did not happen in this case: Indirect Effect (PT and DE) = 0.037, $SE = 0.032$, 95% CI [-0.02; 0.01]; Indirect Effect (PT and ES) = -0.024, $SE = 0.034$, 95% CI [-0.11; 0.03].

The fifth analysis tested the indirect effect of CP on IA via WH. When testing of direct effects of CP in IA, when comparing PT with both DE and ES, there were no statistically significant results ($b = -0.012$, $t_{(111)} = -0.07$, $p = 0.943$ and $b = -0.19$, $t_{(111)} = -0.72$, $p = 0.472$, respectively). So was the direct effect of WH on IAS ($b = -0.005$, $t_{(111)} = -0.43$, $p = 0.666$). In addition, and again, when not accounting for WH, CP presented statistically non-significant effects on IA when comparing PT with both DE and ES ($b = 0.008$, $t_{(112)} = 0.05$, $p = 0.96$ and $b = -0.02$, $t_{(112)} = -0.77$, $p = 0.44$, respectively). It is possible to conclude that there was no mediation due to the absence of indirect effects (Indirect Effect (PT and DE) = 0.02, $SE = 0.05$, 95% CI [-0.08; 0.1]; Indirect Effect (PT and ES) = -0.01, $SE = 0.04$, 95% CI [-0.11; 0.05]).

The sixth analysis tested the indirect effect of CP on Intrinsic Motivation (IM) and Work via WH. First, the direct effects of CP in IM were tested. When comparing PT with DE, the statistically significant result was $b = 0.53$, $t_{(113)} = 2.90$, $p = 0.004$, contrarily, when

comparing PT with ES, the result was $b = -0.27$, $t_{(112)} = -0.89$, $p = 0.37$, which is non-significant. Furthermore, the direct effect of WH on IM was also statistically non-significant ($b = 0.001$, $t_{(112)} = 0.08$, $p = 0.93$). Also, when ignoring WH for the comparison of PT and DE on IM, the result was statistically significant ($b = 0.53$, $t_{(113)} = 3.00$, $p = 0.03$) as opposed to when comparing PT with ES ($b = -0.26$, $t_{(113)} = -0.89$, $p = 0.37$). Once more there was an unsuccessful mediation with no indirect effects: Indirect Effect (PT and DE) = -0.004 , $SE = 0.05$, 95% CI [-0.10; 0.1]; Indirect Effect (PT and ES) = -0.002 , $SE = 0.04$, 95% CI [-0.10; 0.08].

Lastly, the seventh analysis tested the indirect effect of CP on EM via WH. The direct effects of CP in EM were firstly tested. Taking into account the comparison among PT with both DE and ES, there were no statistically significant results ($b = 0.21$, $t_{(112)} = 1.11$, $p = 0.270$ and $b = 0.07$, $t_{(112)} = 0.23$, $p = 0.815$, respectively). This was also the case when testing the direct effects of WH in EM ($b = -0.01$, $t_{(112)} = -1.10$, $p = 0.30$). Furthermore, when disregarding WH, the direct effects of CP in EM when comparing PT with DE and PT with ES were also not statistically significant ($b = 0.27$, $t_{(113)} = 1.44$, $p = 0.15$ and $b = 0.04$, $t_{(111)} = 0.12$, $p = 0.90$, respectively). Once again, mediation did not take place as there were no significant indirect effects: Indirect Effect (PT and DE) = 0.05 , $SE = 0.05$, 95% CI [-0.05; 0.16]; Indirect Effect (PT and ES) = -0.03 , $SE = 0.06$, 95% CI [-0.19; 0.050]. The tables regarding the results of the mediation through PROCESS (Hays, 2020) will be made available in the appendix section.

6. Discussion

As mentioned earlier, culture has an underlying effect on all aspects of a society functioning, namely at an economic level, in law and justice, policy, rules, habits, in the interpersonal relational processes, and on perceptions of power, tradition, values, ideals, rights and duties (Hofstede, Hofstede & Minkov, 2010). Therefore, culture too ends up underlying policies that concern working hours regimes and how people perceive and adapt to them. Over the years most countries have made an effort in trying to understand the impact of working more or less hours on a variety of different variables (Cygan-Rehm & Wunder, 2018), among which productivity, job and life satisfaction, and motivation are included (Collewet & Sauerann, 2017). Multiple studies on the reduction of working hours have shown positive effects on various work and wellbeing related variables (Lee et al., 2007), which resulted in several reductions in average weekly working hours over the years (Pordata, 2021). As expected, some cultures are more prone to change than others, as

demonstrated also by the scores on each Cultural Dimension, and so some countries still remain reluctant in what concerns working schedule reductions. In order to understand if the present study adds new information to this subject it is very important to contextualize the results extracted from the earlier mentioned statistical analyses in light of contemporary academic literature and actual statistical data.

Concerning average weekly working hours (WH), this dissertation collected data from full-time employees. Portugal presented a WH value of 36.4 hours per week as of 2019 (Pordata, 2021). However, in this study's sample, the WH for participants working in Portugal ($n = 61$) was 42.7 hours per week, a value that is substantially above to what is reported on real statistical data. Furthermore, the WH in 2019 for Germany were 26.6 hours per week (Pordata, 2021); while in this sample, participants working in Germany ($n = 41$) reported an average of 38.6 hours per week, 12 more hours than the actual statistical data showed. Moreover, in 2019 Spain reported an average working week in hours of 30.1 hours per week; however, participants living in Spain ($n = 11$) reported working 45.3 hours per week on average. This demonstrates that the individuals who were part of the sample, which is not a representative sample, work more hours, on average, than the average of the countries their work in, suggesting that, as presented by literature, they would be more prone to suffer negative effects on the wellbeing and work related variables (Collewet & Sauerann, 2017).

In addition, regarding the correlations, as mentioned before, the correlation between WH and the work and wellbeing related variables was not statistically significant (i.e., p value ≥ 0.050). This does not go in line with what is argued and found on current academic literature on this subject. As Lepinteur (2018) found, reduced working hours can generate robust and significant increases in job and leisure satisfaction; however, in this sample, working hours did not statistically significantly correlate negatively with either Life and/or Job Satisfaction. Also, as mentioned in the literature review, motivation also tends to increase as working hours reduce (Ahmad, Idris & Hashim, 2013; Chung & Tijdens, 2012), however, this was not found in the present sample. Taken together, H2 was not supported.

Furthermore, when it comes to the correlations between Cultural Dimensions (CD) and WH, all but Indulgence showed statistically significant results (i.e., p value ≤ 0.050). As mentioned, the cultural patterns of a society (based on the Hofstede Model) have an influence on how these same countries perceive and behave toward certain rules and policies (Hofstede, Hofstede, & Minkov, 2010). Namely, high values of Power Distance (PD) would mean that people in those types of cultures would more easily submit themselves to the existing rules than those with lower scores (Hofstede, 2011). And so, the correlation between PD and WH

was that of a weak but positive one ($r = 0.253$, $p = 0.006$), meaning countries with higher levels of PD, like Portugal (PD = 63) and Spain (PD = 57), tend to work more hours than those with lower scores, such as Germany (PD = 35), also as a way for subordinates to prove themselves to executives.

Also, regarding Uncertainty Avoidance (UA), this is a dimension very much related to change in general, meaning countries with higher scores such as Portugal (UA = 99) and Spain (UA = 86) are less prone to change than those with lower scores, like Germany (UA = 65) (Hofstede, 2011). And by being more resistant to change, reductions in WH are less probable and so countries with higher UA would work more hours than those with lower UA. This is the case in the present sample as a weak but positive correlation took place ($r = 0.238$, $p = 0.009$), meaning that in fact participants with higher values of UA work more hours than those with lower scores on this same dimension. Additionally, when it comes to Individualism as opposed to Collectivism (I-C), as described by Hofstede and colleagues (2010), this is a dimension highly connected to inter-dependency, meaning low scores reflect a more collectivist society where people depend more on each other and behave and work as groups, such as Portugal (I-C = 27); the contrary attributable to Individualistic societies (which score high on this dimension), such as Germany (I-C = 67) and Spain (I-C = 51). Knowing so, people in Collectivist societies depend more on others and in-group loyalty is a very much present reality, where people belonging to certain groups comply to the pre-existing rules of that group (Hofstede, Hofstede, & Minkov, 2010). When it comes to working hours, loyalty is shown by working more time, and thus more hours, independently of the effects that that may have on one's wellbeing and performance. In the study sample the correlation of I-C with WH was therefore a weak but negative one ($r = - 0.215$, $p = 0.019$) meaning countries with higher levels of I-C (that is, more Individualistic) tend to work less hours than those with lower values.

The next dimension is Short-term as opposed to Long-term orientation (STO-LTO), where high scores represent a long-term oriented society and vice-versa. It correlated weakly but negatively to WH ($r = - 0.240$, $p = 0.009$), meaning countries which score lower on this dimension, and so are short-term oriented, such as Portugal (STO-LTO = 28) and Spain (STO-LTO = 48), tend to work more hours than those with a more long-term oriented society like Germany (STO-LTO = 83). This implies that even when there is a contextual change, countries that are more STO are reluctant to change in accordance to the circumstances, they are very little open to change and new approaches and ideas (Hofstede, Hofstede, & Minkov,

2010). When it comes to WH changes in current policies, and so reducing WH, may be harder to apply in such countries.

Finally, when it comes to the next dimension, which is Masculinity as opposed to Femininity (F-M), there seems to be a discrepancy regarding the cultural pattern followed until now as it also showed a weak and negative correlation with WH ($r = -0.245$, $p = 0.008$). This would suggest that countries with lower scores, and so called “feminine” societies like Portugal (F-M = 31) and Spain (F-M = 42) would work less hours than those who score lower and are said to be “masculine” cultures such as Germany (F-M = 66). Given the characteristics of this dimension, the scores are not in accordance to the other scores on other dimensions with similar characteristics. For example, I-R, where free time is valued by those with higher scores (Hofstede, 2011) contrarily to F-M, where free time is more valued among those who score low on this dimension (Hofstede, 2011). Portugal and Spain score low both on F-M and on I-R which is somewhat contradictory; Germany, on the other hand, shows a more consistent pattern in this relation, however, as mentioned earlier, as I-R does not correlate significantly with CD, the pattern on WH, regarding F-M, is contradictory for Germany.

These correlations are supported by the scores of the mentioned countries in each dimension and their real statistical data on WH. Furthermore, they also suggest some support but are insufficient for fully supporting H1.

In order to more fully test H1, as well as, H2, H3, H4, H5 and H6 the proposed mediation model was tested on this study’s sample. Contrarily to what was sought, similarly to some of the correlations, there were no statistically significant results to support that mediation by WH occurred in the effects of Portuguese, Spanish and German cultural patterns in the work and wellbeing variables. In fact, the effects of the mentioned cultural patterns in all of the outcome variables (i.e., work and wellbeing related variables) were also statistically non-significant. This means that all hypotheses concerning mediation (i.e., H3, H4, H5 and H6) were not supported. However, when it comes to H1, by looking at the direct effect of Cultural patterns on WH, when comparing the Portuguese cultural pattern with Germany’s on their effect on working hours, it is possible to say that the Portuguese cultural pattern predicts longer working hours than the cultural pattern associated with Germany. As expected, Spain’s cultural pattern did not present statistically significant differences in the effects on WH when comparing with Portugal’s, thus supporting H1.

6.1. Limitations and Recommendations for Future Research

As it is possible to notice across this study, multiple limitations can be pointed out that can be addressed in future research. Firstly, the fact that neither the correlations between WH and the work and wellbeing related variables nor the mediation model were statistically significant presents a limitation in terms of the results obtained throughout the study, and the confirmation of the null hypotheses regarding H2, H2, H3, H4, H5 and H6 ends up not offering new insights on the relations regarding the just mentioned hypotheses.

When it comes to the reliability values of internal consistency, these were not always ideal. Specifically, for the Presenteeism and the Absenteeism scales, general guidelines of internal consistency were not met (Streiner, 2003). This can limit the conclusions that can be taken regarding these variables in this study. For the other variables, scales higher values (i.e., Cronbach's alpha value ≥ 0.80) would also be better, however, the ones demonstrated are acceptable for the present body of work.

Furthermore, when it comes to the sample of the study this was also a factor that may have undermined some of the results. Firstly, the sampling method itself has limitations. A probabilistic sampling method, which was used for its convenience in addressing the constraints inherent to the context of an MSc dissertation in terms of time, would be preferable as opposed to the non-probabilistic one used. Meaning, there is a lack of representation of the general population, so results cannot be generalized and more bias can occur. Adding to this, the study's sample was a rather small one ($n = 118$) and not very varied in terms of country of residence (61 participants were based in Portugal, 41 in Germany and 11 in Spain), ages ($\bar{x} = 28.79$, $\tilde{x} = 25$, $\sigma = 10.585$, $Mo = 23$ ($n = 20$), Percentile 75 = 28, Max = 66, Min = 19), and WH ($\bar{x} = 41.48$, $\tilde{x} = 40$, $\sigma = 7.442$, $Mo = 40$ ($n = 33$), Max = 60, Min = 24). Also, there were too much discrepancies in the number of participants in each group (i.e., based in Portugal, Spain or Germany).

Lastly, regarding the WH variable, it was only asked how many hours did individuals work on average per week, and so it was impossible to know if the WH reported by the participants were the actual contractual WH of their job or if these were the WH they perceived or calculated to work, independently of their actual working schedule. It would be key that future research on this subject, if and when asking participants the same question, to make clear which is intended for the participants to report.

6.2. Conclusion

Working hours in Portugal are high and above European standards, which may be explained by its Cultural pattern and by a profile of that of a developing country (Hofstede, Hofstede, & Minkov, 2010). This means its work related practices are not up-to-date to the present circumstances and to what has already been done in a lot of other countries (i.e., working hours reductions, Cygan-Rehm & Wunder, 2018). The cultural pattern of this country reveals somewhat of an inadequacy to meet the needs of its population. However, this same unfulfilled people appear to be culturally conformed with this situation (Jesuino, 2007; Hofstede, 2011). This highlights that culture ends up underlying multiple aspects of peoples' lives.

In order to find out more about this subject, a cross-sectional with a non-probabilistic sampling method study was carried out using a questionnaire specifically designed for the purpose of the present research. In this survey multiple pre-validated scales were used for assessing participants on the various work and wellbeing related variables, as well as sociodemographic questions also regarding participants' WH. In an effort to test the effects of WH in the relation between CD (and cultural patterns) and the mentioned work and wellbeing related variables, correlations and a mediation model were tested. Correlations among the multiple CD and WH had significant results where a propensity was shown for those who score high on PD and UA, and low on I-C, STO-LTO and F-M, to work more hours. This propensity was further supported by the direct effects of Portugal's and Spain's Cultural patterns on WH where these predicted longer WH. Although there were no statistically significant relations and effects among CD (or cultural patterns) and the multiple work and wellbeing related variables, literature suggests that these relationships do exist, in the sense that longer WH tend to have negative effects on the work and wellbeing related variables (excluding Presenteeism and Absenteeism). Further research is necessary to further investigate these important issues.

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Appendices

APPENDIX A.

Relationship between cultural patterns and average weekly working hours

Outcome: average weekly working hours						
<i>R</i>	<i>R-sq</i>	<i>MSE</i>	<i>F</i>	<i>df1</i>	<i>df2</i>	<i>p</i>
.29	.08	52.20	5.04	2.00	114.00	.01

Main model							
	<i>Coeff</i>	<i>se</i>	<i>t</i>	<i>p</i>	<i>LLCI</i>	<i>LLCI</i>	
PT vs DE	-3.70	1.42	-2.60	.00	-6.51	-.88	
PT vs ES	2.60	2.40	1.10	.27	-2.10	7.30	

Note. n = 114; Level of confidence for all confidence intervals in output: 95.0000;
 Number of bootstrap samples for percentile bootstrap confidence intervals: 5000; PT stans for Portuguese cultural pattern; ES stans for Spanish cultural pattern; DE stands for German cultural pattern

APPENDIX B.

Relationship between cultural patterns, satisfaction with life and average weekly working hours

Outcome: satisfaction with life						
<i>R</i>	<i>R-sq</i>	<i>MSE</i>	<i>F</i>	<i>df1</i>	<i>df2</i>	<i>p</i>
.17	.03	0.52	1.11	3.00	113.00	.35

Main model							
	<i>Coeff</i>	<i>se</i>	<i>t</i>	<i>p</i>	<i>LLCI</i>	<i>LLCI</i>	
PT vs DE	0.25	.14	1.70	.09	-.04	.54	
PT vs ES	-.05	.24	-.22	.83	-.52	.42	
Average weekly working hours	.00	.01	.18	.86	-.02	.02	

Note. n = 113; Level of confidence for all confidence intervals in output: 95.0000;
 Number of bootstrap samples for percentile bootstrap confidence intervals: 5000; PT stans for Portuguese cultural pattern; ES stans for Spanish cultural pattern; DE stands for German cultural pattern

APENNDIX C.

Indirect Effects of average weekly working hours in the relationship between cultural patterns and satisfaction with life

	<i>Effect</i>	<i>BootSE</i>	<i>BootLLCI</i>	<i>BootULCI</i>
PT vs DE	-.01	.04	-.09	.07
PT vs ES	.00	.03	-.09	.06

Note. n = 113; Level of confidence for all confidence intervals in output:95.0000;
Number of bootstrap samples for percentile bootstrap confidence intervals:5000; PT stans for Portuguese cultural pattern; ES stans for Spanish cultural pattern; DE stands for German cultural pattern

APENNDIX D.

Relationship between cultural patterns, job satisfaction and average weekly working hours

Outcome: job satisfaction						
<i>R</i>	<i>R-sq</i>	<i>MSE</i>	<i>F</i>	<i>df1</i>	<i>df2</i>	<i>p</i>
.21	.04	.63	1.80	3.00	113.00	.16

Main model							
	<i>Coeff</i>	<i>se</i>	<i>t</i>	<i>p</i>	<i>LLCI</i>	<i>LLCI</i>	
PT vs DE	.36	.16	2.24	.03	.04	.68	
PT vs ES	.03	.26	.11	.91	-.49	.55	
Average weekly working hours	.00	.01	.33	.75	-.02	.02	

Note. n = 113; Level of confidence for all confidence intervals in output: 95.0000;
Number of bootstrap samples for percentile bootstrap confidence intervals: 5000; PT stans for Portuguese cultural pattern; ES stans for Spanish cultural pattern; DE stands for German cultural pattern

APENNDIX E.

Indirect Effects of average weekly working hours in the relationship between cultural patterns and job satisfaction

	<i>Effect</i>	<i>BootSE</i>	<i>BootLLCI</i>	<i>BootULCI</i>
PT vs DE	-.01	.04	-.11	.07
PT vs ES	.00	.04	-.07	.09

Note. n = 113; Level of confidence for all confidence intervals in output:95.0000;
Number of bootstrap samples for percentile bootstrap confidence intervals:5000; PT stans for Portuguese cultural pattern; ES stans for Spanish cultural pattern; DE stands for German cultural pattern

APENNDIX F.

Relationship between cultural patterns and task performance (productivity)

Outcome: task performance (productivity)						
<i>R</i>	<i>R-sq</i>	<i>MSE</i>	<i>F</i>	<i>df1</i>	<i>df2</i>	<i>p</i>
.08	.01	.26	.23	3.00	112.00	.87

Main model							
	<i>Coeff</i>	<i>se</i>	<i>t</i>	<i>P</i>	<i>LLCI</i>	<i>LLCI</i>	
PT vs DE	-.05	.10	-.45	.65	-.25	.16	
PT vs ES	.10	.17	.58	.56	-.23	.43	
Average weekly working hours	-.00	.01	-.17	.86	-.01	.01	

Note. n = 112; Level of confidence for all confidence intervals in output: 95.0000;
 Number of bootstrap samples for percentile bootstrap confidence intervals: 5000; PT stans for Portuguese cultural pattern; ES stans for Spanish cultural pattern; DE stands for German cultural pattern

APENNDIX G.

Relationship between cultural patterns and presenteeism (productivity)

Outcome: presenteeism (productivity)						
<i>R</i>	<i>R-sq</i>	<i>MSE</i>	<i>F</i>	<i>df1</i>	<i>df2</i>	<i>p</i>
.27	.07	.27	2.92	3.00	112.00	.03

Main model							
	<i>Coeff</i>	<i>se</i>	<i>t</i>	<i>p</i>	<i>LLCI</i>	<i>LLCI</i>	
PT vs DE	-.29	.11	-2.72	.01	-.50	-.08	
PT vs ES	.08	.17	.46	.65	-.26	.42	
Average weekly working hours	-.01	.01	-1.31	.19	-.02	.00	

Note. n = 112; Level of confidence for all confidence intervals in output: 95.0000;
 Number of bootstrap samples for percentile bootstrap confidence intervals: 5000; PT stans for Portuguese cultural pattern; ES stans for Spanish cultural pattern; DE stands for German cultural pattern

APENNDIX H.

Indirect Effects of average weekly working hours in the relationship between cultural patterns and presenteeism (productivity)

	<i>Effect</i>	<i>BootSE</i>	<i>BootLLCI</i>	<i>BootULCI</i>
PT vs DE	.04	.03	-.02	.11
PT vs ES	-.24	.03	-.10	.03

Note. n = 112 Level of confidence for all confidence intervals in output: 95.0000;
Number of bootstrap samples for percentile bootstrap confidence intervals: 5000; PT stans for Portuguese cultural pattern; ES stans for Spanish cultural pattern; DE stands for German cultural pattern

APENNDIX I.

Relationship between cultural patterns and illegitimate absenteeism (productivity)

Outcome: illegitimate absenteeism (productivity)						
<i>R</i>	<i>R-sq</i>	<i>MSE</i>	<i>F</i>	<i>df1</i>	<i>df2</i>	<i>p</i>
.09	.01	.61	.28	3.00	111.00	.83

Main model							
	<i>Coeff</i>	<i>se</i>	<i>t</i>	<i>p</i>	<i>LLCI</i>	<i>LLCI</i>	
PT vs DE	-.01	.16	-.07	.94	-.33	.31	
PT vs ES	-.19	.26	-.72	.47	-.70	.32	
Average weekly working hours	-.00	.01	-.43	.67	-.03	.02	

Note. n = 111; Level of confidence for all confidence intervals in output: 95.0000;
Number of bootstrap samples for percentile bootstrap confidence intervals: 5000; PT stans for Portuguese cultural pattern; ES stans for Spanish cultural pattern; DE stands for German cultural pattern

APENNDIX J.

Indirect Effects of average weekly working hours in the relationship between cultural patterns and illegitimate absenteeism (productivity)

	<i>Effect</i>	<i>BootSE</i>	<i>BootLLCI</i>	<i>BootULCI</i>
PT vs DE	.02	.05	-.08	.11
PT vs ES	-.01	.04	-.11	.05

Note. n = 111; Level of confidence for all confidence intervals in output: 95.0000;
Number of bootstrap samples for percentile bootstrap confidence intervals: 5000; PT stans for Portuguese cultural pattern; ES stans for Spanish cultural pattern; DE stands for German cultural pattern

APENNDIX K.

Relationship between cultural patterns and intrinsic motivation

Outcome: intrinsic motivation						
<i>R</i>	<i>R-sq</i>	<i>MSE</i>	<i>F</i>	<i>df1</i>	<i>df2</i>	<i>p</i>
.31	.10	.81	3.94	3.00	112.00	.01

Main model							
	<i>Coeff</i>	<i>se</i>	<i>t</i>	<i>P</i>	<i>LLCI</i>	<i>LLCI</i>	
PT vs DE	.54	.18	2.09	.00	.17	.90	
PT vs ES	-.27	.30	-.89	.37	-.85	.32	
Average weekly working hours	.00	.01	.08	.93	-.02	.02	

Note. n = 112; Level of confidence for all confidence intervals in output: 95.0000;
Number of bootstrap samples for percentile bootstrap confidence intervals: 5000; PT stans for Portuguese cultural pattern; ES stans for Spanish cultural pattern; DE stands for German cultural pattern

APENNDIX L.

Indirect Effects of average weekly working hours in the relationship between cultural patterns and intrinsic motivation

	<i>Effect</i>	<i>BootSE</i>	<i>BootLLCI</i>	<i>BootULCI</i>
PT vs DE	-.00	.05	-.10	.11
PT vs ES	.00	.04	-.10	.08

Note. n = 112; Level of confidence for all confidence intervals in output:95.0000;
Number of bootstrap samples for percentile bootstrap confidence intervals:5000; PT stans for Portuguese cultural pattern; ES stans for Spanish cultural pattern; DE stands for German cultural pattern

APENNDIX M.

Relationship between cultural patterns and extrinsic motivation

Outcome: extrinsic motivation						
<i>R</i>	<i>R-sq</i>	<i>MSE</i>	<i>F</i>	<i>df1</i>	<i>df2</i>	<i>p</i>
.17	.03	.87	1.08	3.00	112.00	.36

Main model							
	<i>Coeff</i>	<i>se</i>	<i>t</i>	<i>P</i>	<i>LLCI</i>	<i>LLCI</i>	
PT vs DE	.21	.19	1.11	.27	-.17	.60	
PT vs ES	.07	.31	.23	.81	-.53	.68	
Average weekly working hours	-.01	.01	-1.05	.29	-.04	.02	

Note. n = 112; Level of confidence for all confidence intervals in output: 95.0000;
 Number of bootstrap samples for percentile bootstrap confidence intervals: 5000; PT stans for Portuguese cultural pattern; ES stans for Spanish cultural pattern; DE stands for German cultural pattern

APPENDIX N.

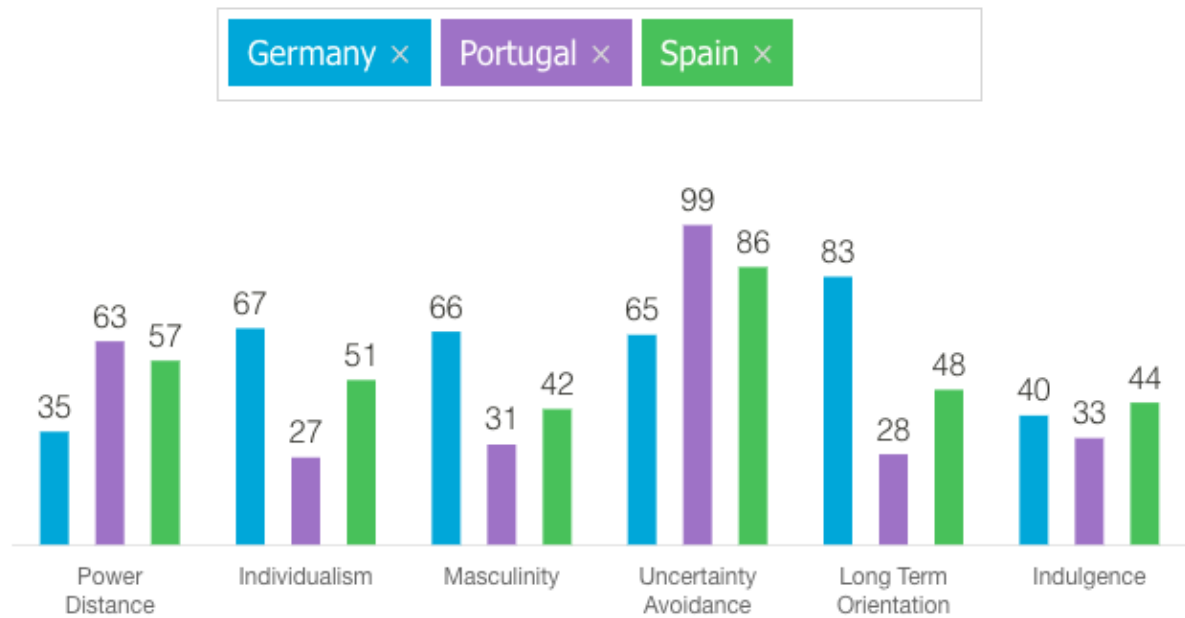
Indirect Effects of average weekly working hours in the relationship between cultural patterns and extrinsic motivation

	<i>Effect</i>	<i>BootSE</i>	<i>BootLLCI</i>	<i>BootULCI</i>
PT vs DE	.05	.05	-.05	.16
PT vs ES	-.03	.06	-.19	.05

Note. n = 112; Level of confidence for all confidence intervals in output:95.0000;
 Number of bootstrap samples for percentile bootstrap confidence intervals:5000; PT stans for Portuguese cultural pattern; ES stans for Spanish cultural pattern; DE stands for German cultural pattern

APPENDIX O.

Cultural dimensions' scores from Portugal, Germany and Spain



Note: source: Country Comparison. (2021). Retrieved October 10, 2021, from <https://www.hofstede-insights.com/country-comparison/germany,portugal,spain/>