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**The role of cultural activities engagement on
subjective well-being in Italy, 2013-2020.**

An econometric analysis.

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Abstract

Historically, compared to other leisure time activities such as sport or volunteering, the effects of cultural activities participation on life satisfaction have received less attention, yet over the last decade studies on subjective well-being measurement have been receiving growing consideration even from economists. In this work, we consider variation in subjective well-being from cultural engagement of a sample of Italian individuals in the following categories of cultural leisure activities: visiting museums or art exhibitions, visiting monuments or historical sites, participating in concerts, going to cinema, theatre and reading books. Using cross-sectional data from the 2013-2020 waves of the ISTAT Multipurpose survey on households “Aspects of daily life” (AVQ) and similarly to earlier studies, econometric inference techniques are used to assess whether there are any side effects resulting from such cultural consumption on four measures of subjective well-being, namely satisfaction with life, amount of leisure time, health, and job. In general, this study confirms a positive and significative relationship between cultural participation and subjective well-being. Such findings aim to draw attention on the importance of cultural engagement for enhancing life satisfaction and, as a result, to support cultural policies that are evidence-based and centred on well-being and that promote equal cultural accessibility as a way to improve people’s quality of life.

“For many the arts are a real source of happiness, joy, fun, relaxation, and learning”.

(Bunting 2007).

1 Introduction

The intrinsic and unique nature of public goods such as cultural capital assets, which encompass elements of society’s cultural heritage, artistic expression, and intellectual property, makes it difficult to attribute them a precise market value. Valuing cultural capital assets involves assessing their worth in terms of both economic and non-economic dimensions, considering their singular non-market characteristics, social significance, and eudemonic content. Such considerations require a holistic approach that goes beyond purely economic metrics and include their cultural, social, and environmental dimensions, which seem challenging to be properly assess for public policy evidence.

In recent decades, a debate has developed in the international arena on the need to find tools to complement traditional economic indicators (e.g. Gross Domestic Product) that would measure countries’ well-being while also considering aspects related to the social, environmental, and cultural dimensions. Notably, international recommendations (e.g. Stiglitz et al. 2008; OECD 2013, 2018) and beyond emphasize the need to focus on people’s experiences and perceptions of their own quality of life and individual well-being, including happiness, life satisfaction and fulfilment. On this basis subjective well-being approach provides a more comprehensive assessment of well-being by considering multiple dimensions of individuals’ lives, including their emotional, psychological, and social well-being. This broader perspective resonates with Stiglitz Report’s recommendation to adopt multidimensional indicators that capture the diverse aspects of human welfare beyond economic metrics.

Since subjective well-being measures include non-market factors and cultural capital assets represent public goods influencing people’s overall well-being, this thesis aims to analyse the intricate connections between subjective well-being and cultural participation. The exploration of this relationship is crucial for several reasons. Firstly, understanding how cultural engagement influences people subjective well-being can provide insights into the mechanisms through which cultural activities contribute to individual, societal and cultural welfare. Secondly, uncovering the factors that mediate or moderate this relationship can inform the design of public policies and interventions aimed at promoting well-being through cultural

avenues. Lastly, examining cultural participation in the context of subjective well-being contributes to the broader discourse on the societal benefits of cultural engagement and the role of culture in fostering human flourishing (in line with positive psychology expertise).

The corollary of these reasons is historically more often implicitly assumed than demonstrated empirically, particularly in the context of Italian-related literature. Despite widespread acknowledgement of the potential linkages between cultural capital assets and people well-being - various studies already observed an association between cultural engagement and positive subjective well-being outcomes after controlling for relevant social, economic, and demographic variables (Crossik and Kaszynska 2016) - empirical evidence validating these connections remains relatively sparse. Thus, the following master thesis research tries to fill the gap between theoretical assumptions and empirical evidence regarding the relationship between subjective well-being and cultural participation. The applied research methodology for this purpose is based on two main econometric inference techniques (OLS and ordered logit models) which analyse data and variables extracted from ISTAT Multipurpose survey on households "Aspects of daily life" (AVQ) during 2013-2020 period. Variables are selected according to happiness economics established literature and include socio-economic (household economic resources, employment status, educational level, social contact) and demographic factors (age, gender, region of residency). Four dimensions of subjective well-being, i.e. life satisfaction, satisfaction with health, job and amount of leisure time are evaluated from Italian cultural participation.

The main conclusions drawn confirm overall positive and significant interrelations from cultural consumption on the four dimensions of subjective well-being under analysis, with particular emphasis on the positive impact of theatre performances consumption. The insights gained from this research have the potential to inform evidence-based policies and interventions that harness the transformative power of culture to enhance individual and societal well-being. They also provide a better understanding of cultural capital assets value for individuals' well-being, from which further and in-depth assessments can be calculated in the future.

This master thesis is organized as follows. Chapter 2 sets our work in the state of the existing literature on well-being, its components and relevance for policy design, with particular reference to the case of United Kingdom. Chapter 3 is focused on the analysis of the relationship between culture and well-being, while placing emphasis on a functional interpretation of

culture for society's well-being (cultural welfare) and on the Italian perspective. Chapter 4 presents our data and methodology, and the results obtained. At last, overall discussion including limitations with directions for future research and conclusions.

2 Related literatures

2.1 Culture and well-being: a complex debate

The relationship between culture and well-being has long been discussed and is rooted in several academic fields and cultural traditions. Early writings in anthropology, psychology, sociology as well as philosophy and philosophy of religion, have all explored the connection between culture and well-being. However, considering that both concepts of well-being and culture evolve over time and space a precise and shared definition is hard to find. For instance, cultural anthropology as a discipline has long been interested in understanding how different societies and cultures shape people well-being and their behaviours (see McGree and Warms 2013). Pioneers in this field, such as Franz Boas, conducted studies that explored the cultural dimensions of well-being. Boas promoted a real cynicism of attempts to formulate “scientific laws” for culture, he developed a notion for culture as fluid and dynamic and which needs to be analysed and studied based on data, fieldwork, and research. Not surprisingly he wrote a book entirely dedicated to statistical treatment of biological and psychological measurements, aiming at improving the limited mathematical preparation of students who devoted themselves to the study of anthropology, biology, and psychology, which made it necessary to avoid all application of the calculus (Boas 1906). However, before focusing on what is culture for this work, it is necessary to discuss the histories of ideas around well-being since the question of how it should be defined remains challenging.

Considering that the term “well-being” represents a widespread and growing area of research in many fields, yet there is ambiguity around its definition. There are even disagreements in whether it is spelt “well-being” or “wellbeing”. “Health and well-being” or “mental health and well-being” are today common expressions in public services and formal reports, from housing to arts councils (Oman 2021). Well-being is indeed also used to describe the concept of health, posing the question if we should consider the idea of quality of life separately from ideas of illness and physical health. Indeed, this open debate brought Claudine Herzlich (1973) to study the attitude of the individual towards health, as well as the current emphasis of wellbeing research has focused on subjective well-being measurement (Dodge et al. 2012). Well-being is also referred to through other expressions like “welfare”, “quality of life”, “life satisfaction” or simply “happiness”. It is used to describe things which are not really about people or life at all as well, such as “the well-being of the sector” or the “well-being of the economy”. In short, the concept of well-being is qualified by different nuances and definitions according to the

reference discipline, be it psychology or economics. Moreover, as the research in well-being has been growing in recent decades, a real well-being agenda has been emerged since various national and international actors and researchers have publicly recognized the importance of well-being measurement for decision-making. According to the specific discipline, the well-being agenda has manifested in different camps with different programs, and, as a result, we have also different kinds of well-being data generated for different purposes (Oman 2021). Similarly for culture, according to the specific discipline we are referring to, culture tends to concern for example more social-anthropological aspects as in the case of anthropology and sociology, or it can be also referred to as “the arts” within cultural policy and cultural economics expertise. Each of such fields of study with different kinds of data, approaches, and research questions.

The growing attention given by media, institutions, research councils and public bodies to the issue of people’s wellbeing takes shape since the early criticisms and limitations of Gross Domestic Product (GDP) as the reference objective measure of economic well-being appeared. Various limitations were recognized since its inception and many experts were worried that too much attention was placed on GDP as an over-arching measure of performance (e.g., Simon Kuznets 1934). GDP is indeed an objective measure of the volume of goods and services produced within a country over a given period of time. It is not – as it has been often used – a measure of a country’s success (Stiglitz et al. 2018). Thus, it is starting from 1960s that economists and social scientists began to voice concerns about the need of other indicators to attest the overall well-being of people and their countries. Since then, several public institutions, national and international actors have brought more and more attention to the need of considering alternative indices to assess people’s well-being. Various alternative factors such as income distribution or environmental quality were proposed to address this lack of comprehensive measures and in 1990 United Nations introduced the Human Development Index (HDI), as a first official attempt by the international community to assess overall well-being by considering additional objective elements like life expectancy, education, and income as well. However, it was during the XXI century that the debate around well-being saw a resurgence of interest.

In September 2008, the world fell into what has been called the Great Recession, the worst global downturn since the Great Depression eighty years earlier. Analysing the past in retrospect, indicators that could have provided a warning signal to policymakers of what was about to happen were, in many cases, available but were not part of the well-established

reporting system. Also, estimates of GDP failed to provide a sense of the true scale of the recession. A recent study has indeed revealed that a significant decline in long-run GDP growth occurred even prior to the Great Recession, detecting the fall from the beginning of the 2000s onward (Antolin-Diaz et al. 2017). Moreover, many policymakers ignored the signals due to the ideologic campaigns that prevented seeing the dangers ahead. Indeed, every epoch develops a range of contradictory discourses and ideologies for the purpose of legitimizing existing inequalities and prioritizing society's most-favoured classes (Piketty 2019). In short, what the Great Recession revealed was that GDP did not convey a comprehensive figure of what most people were experiencing in terms of socio-economic well-being. GDP did not capture the diverse situations of different groups of the population. It was not constructed to measure the economic situation of individual households. It only describes what is happening to total economic production and to the average income generated from this production, but it does not say how the income is distributed among individual households. The global crisis clearly shown the need for a broader range of indicators and data that capture the actual state of health of people and countries.

The publication of the report *Beyond GDP. Measuring What Counts for Economic and Social Performance* (OECD 2018) by the Commission on the measurement of economic performance and progress, headed by Joseph E. Stiglitz, Amartya Sen, and Jean-Paul Fitoussi (the "Stiglitz-Sen-Fitoussi" Commission) perfectly analysed the GDP limitations and critiqued the exclusive focus on economic output, all along considering how better metrics of well-being and social progress might be constructed. Since then, these critiques have led to many efforts to develop alternative measures of well-being, such as the Genuine Progress Indicator (GPI), the Better Life Index, and the Inclusive Wealth Index. More attention was also given to measures of what is called subjective well-being (SBW) approach. Various research centres in social sciences, humanities and psychology have expanded their research influence to assess how social and cultural capitals (Bourdieu 1973; 1986) play a key role in well-being beyond production rate, or income (Dalziel et al. 2018). Governments and international organizations have also begun to use these alternative measures alongside GDP to provide a more realistic view of societal progress. As Susan Oman (2021) argues, the storyline of well-being agenda above mentioned is essential to understand the current debate around the relationship between culture and well-being and how it can be measured according to available and significant data. Since the renovated awareness brought by the Commission in 2009, the well-being agenda has integrated various national and international policy agendas and guidelines and has represented a

widespread research's focus among multiple scholars. However, before delving deeper into what is culture for policy and for this work, it is necessary to better clarify the multi-faceted nature of wellbeing, the consequently complexity to create a shared and precise definition of this concept, and therefore the variety of available data able to measure it all contributing to further complicate the debate.

2.2 Some historical background studies on well-being

While this work's primary concern is not to define well-being, nor is to re-document the histories of ideas around this concept, to shedding light on this challenging topic and heading towards the heart of this research, we need to take a step back by starting from the historical background around well-being studies. Since ancient philosophy, philosophers such as Aristotele discussed the concept of *eudaimonia* or living a flourishing life. *Eudaimonic* well-being, which emphasizes the pursuit of virtue, fulfilment of potential, and a meaningful life, has strong connections to human culture and values. Many ancient philosophers considered *eudaimonia* the highest good for humans and ultimate motivation for human action, but there is still an open debate about what sort of life counts as doing and living well among different societies and relative cultures. The main issue is to specify what sort of activities enable one to live well and what directly affect an individual's well-being. Throughout history many philosophers and social scientists have concerned themselves with defining happiness or well-being according to both external and internal criteria. Some see well-being as synonymous with happiness, and therefore arguably only a part of the human experience, and others as all-encompassing concept to describe the quality of people's lives (Dodge et al. 2012). For Eastern philosophers for example, well-being could be reached restraining individual desires through an ideology that encouraged the equal distribution of resources among people. Whereas in Emanuel Kant theory individuals should act in a moral way to achieve a good society (Diener and Suh 1997). Overall, there are two overarching ideas of well-being which emerge from two main approaches (Dodge et al. 2012; Oman 2021). They have been described as 'Benthamite-subjective-hedonic-individualistic' or 'Aristotelian-objective-eudaimonic-rational' (Bruni and Porta 2005, p. 20). The first idea of well-being is related to the concept of *hedonia*, also understood as positive feeling or pleasure, and it is based on people's subjective experience of their own lives. This concept is philosophically rooted in the Epicureans' idea that since pleasure is good it is morally virtuous to aspire towards. Later, the utilitarian philosopher Jeremy Bentham adapted this belief to consider any moral worth of an act according to the degree of happiness provided by. As a result, he believed that the maximisation of pleasure and

reduction of pain was the main role of government (Bentham 1996 [1789]). From Bentham's assumption that societies ought to strive for "the greatest happiness of the greatest numbers", subjective well-being (SWB) research has taken its philosophical roots as well (Diener 1984) concerning also cultural economics and cultural policy research.

The second main tradition refers to the Aristotelian concept of *eudaimonia* before mentioned. Contrary to *hedonia*, this account of well-being is formed by what people do across all the aspects of their lives and is more aligned to purpose, rather than pleasure. In Aristotle's concept of *eudaimonia*, individuals were called on to realize their full potentialities to achieve a "good life" (Diener and Suh 1997). The eudaimonic tradition placed an emphasis on positive psychological functioning and human development (e.g., Rogers, 1961; Ryff, 1989a; 1989b; Watermann, 1993). Although many criticized Aristotle's idea of living a best life as too idealistic or purist, much of his thinking remains in use. These two main traditions still ground much of the well-being discourse (Oman 2021; Dalziel et al. 2018) since they manifest in proposals of how to achieve both in self-help literature (e.g., Dolan 2014), or in the role of government in reducing suffering and inequalities or maximising people's opportunities to flourish (e.g., Stiglitz et al. 2018, Sen 1999), but also within subjective-wellbeing (SWB) literature (e.g., Diener 1984, 1995; Tov and Diener 2007). Each approach should though be contextualized according to the normative ideals and the social traditions of each society and individual. Besides people's personal satisfaction of preferences, which is based on the modern economic thinking assumption that individuals select those things that will most enhance their quality of life (thus their potential well-being) – and how people experience their own life (following the subjective well-being approach), we need to keep in mind that cultural factors play an important role in determining any levels of well-being (Diener and Suh 1997; Tov and Diener 2007). As The World Health Organization (WHO) now stresses, the quality of life is defined by "an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns" (1997). Although a distinction can be made between an individual and a rational type of well-being, or better an objective and subjective approach to well-being, there is still no shared definition of well-being. Indeed, despite the differences in approach, most scholars now believe that well-being is a multi-dimensional construct (e.g., Diener 2009; Stiglitz, Sen and Fitoussi 2009; Michaelson et al. 2009) or using WHO words "a broad ranging concept affected in a complex way by the person's physical health, psychological state, personal beliefs, social relationships and their relationships to salient features of their environment" (1997). However, the multi-dimensional

aspect of well-being has been recognized and studied not only by psychologists and sociologists but also by economists, especially within welfare economics. They indeed developed several alternative approaches to defining and measuring quality of life, from focusing on social indicators such as health, education, levels of crime, to economic ones evaluating income or wealth inequality. Each assessing different philosophical approach to well-being, respectively on normative ideals, subjective experiences, or the ability to select goods and services that one desires (Diener and Suh 1997). Still, the diversity of measurement dimensions, together with the “inconsistent use of definitions, indicators, and measures of well-being has (further) created a confusing and contradictory research base” (Pollard and Lee 2003).

2.3 What constitutes well-being

Agreeing on the multi-dimensional nature of well-being, to add clarity we need to discuss what constitutes well-being and such multi-dimensional nature. According to the two main well-being traditions before discussed, the first idea of well-being – the *hedonia* tradition – has evolved to incorporate what is commonly called subjective well-being (SWB) approach. It refers to how people are doing or how they are feeling, analysing both material and general conditions concerning their feelings in a certain period of time. The subjective well-being (SWB) approach aligns with the hedonic tradition by emphasizing the importance of individual’s subjective experiences, emotions, and overall life satisfaction as key components of well-being. Researchers like Ed Diener have played a significant role in advancing this perspective. According to the model of Ed Diener and Eunkook Suh (1997), subjective well-being is composed of three interrelated components: life satisfaction, pleasant affect, and unpleasant affect. Recognizing both positive and negative affective experiences of an individual, SBW does not simply refer to an absence of negative experiences, which was not the case for traditional clinical models of mental health, but it also includes satisfaction with life and domains of life such work and leisure (Diener and Suh 1997). Afterwards, the hedonic tradition has later evolved towards positive psychology, as developed by Martin Seligman and Mihaly Csikszentmihalyi. This evolution emphasizes the study and promotion of positive emotions, engagement, and well-being. It expands beyond the feeling of pleasure, including concepts like “flourishing” (see Seligman 2011). Notably, his dynamic theory of well-being focuses on six main elements for a flourishing life: Positive Emotion, Engagement, Relationships, Meaning and Accomplishment – what is also called the PERMA model.

The second idea of well-being previously discussed – the *eudaimonia* tradition, as espoused by Aristotle – has evolved more towards a human development approach and a virtue-oriented perspective. It refers to what has been studied by models of psychological well-being, through the multidimensional frameworks proposed by Carol Ryff and Corey Keyes (see Keyes et al. 2002). They included elements like self-acceptance, personal growth, purpose in life, and positive relations with others as essential components of well-being (Dodge et al. 2012). Another important step for the evolution of the *eudaimonic* tradition is the Self-Determination Theory (SDT) developed by Edward Deci and Richard Ryan. It emphasizes the importance of autonomy, competence, and relatedness in promoting well-being. SDT also highlights the role of intrinsic motivation and fulfilling one's innate psychological needs (Ryan and Deci 2000). Later, the *eudaimonic* tradition has expanded its focus to include various domains of well-being, such as social well-being, environmental well-being, and existential well-being. Indeed, such evolution brought Dalziel et al. (2018) to develop the so called “well-being economics framework” focused on seven types of capital stocks, i.e. human, cultural, social, economic, natural, knowledge and diplomatic capitals. Each one providing flows of services important for overall well-being, both individually and through their interaction. Thus, the acknowledgement of the interconnectedness of well-being with broader aspects of life – and here we return to the multi-dimensional nature of well-being's definition we refer to - has led to also integrate aspects of a more objective well-being (OWB) approach, which is not really related to any specific well-being tradition but is simply related to measurable and quantifiable factors.

The OWB approach examines what are the components of conducting a good life, using *objective* and tangible data such as income's levels, housing conditions, education and literacy rates, health, and life expectancy. They measure material conditions and are used to analyse how something like housing or income might influence people's lives. They mainly come from administrative data, collected in the process of people's everyday life (like taxation, registration of births, marriages, and deaths) and are considered impartial (Oman 2021). We should question the term impartial because, despite their strengths, objective indicators of well-being even if they are thought to be “objective” they are often characterized by measurement issues. Indeed, they are influenced by inevitable subjective decisions of the scientists in charge of selecting and measuring the variables. They decide both which variables to include and which to exclude. Even when variables are accurately measured and agreed, there is still the question of whether such pre-selected variables unequivocally represent society's notion of “well-being”

(Diener and Suh 1997). The Gross Domestic Product Index (GDP) represents a perfect example in this respect. It is an objective economic indicator thought to provide a comprehensive view of nation's well-being and economic performance. The creation of GDP is the result of the "first wave of well-being [agenda] evolved as a project of redistribution after World War II" (Oman 2021, p. 43) and it should collect information on income distribution, growth, and productivity to analyse how those indicators impact the welfare of the nation. Yet, one of its originators, Simon Kuznets, was perfectly aware that those indicators were only one piece of the complexity of people's well-being (Oman 2021). In a nutshell, depending on the theory and on the approach, the concept of well-being is made up of various factors that differ from one another, although they all answer the fundamental question of what influences an individual's quality of life and therefore its overall well-being, whether subjectively or objectively.

Because of the limitations encountered by traditional objective methods of well-being measurement, more research around subjective well-being (SWB) approach has been fostered. Thanks to the robustness of modern measures, many psychologists concluded that subjective states are now a legitimate topic of study challenging rationality assumption (see Kahneman 1994), and many economists have been starting to agree as well (e.g., Oswald 1997; Frey and Stutzer 2005; Layard 2005). Ed Diener's literature review on SWB theories (1984) covers and analyses a large number of studies that in the last two decades have addressed the concept of happiness and well-being both from a theoretical and empirical points of view. Starting from Wilson's review (1967) on this emergent area, Diener wonders whether what Wilson concluded in his work is still valid. He argued that the "happy person emerges as a young, healthy, well-educated, well-paid, extroverted, optimistic, worry-free, religious, married person with high self-esteem, high job morale, modest aspirations, of either sex and of a wide range of intelligence" (Wilson 1976, p. 294). However, considering other "external correlates of SWB" and analysing more recent theories, Wilson's conclusions are called into question by an increasing number of studies on psychological causes of happiness (Diener 1984). Indeed, some SWB theories also consider the equilibrium and the fluctuating components of one's personality as influential factors for happiness (e.g., Reber 1995; Herzlich 1973). These kinds of studies have brought Bruce Headey and Alexander Wearing to develop what is called the stocks and flows framework (1991). Their model proposes that differences between individuals in terms of SWB depends on personal "stable stocks", which interact with specific life experiences – "flows" – in order to always keep a sort of equilibrium state within the individual. What they

call “stable stocks” could be also better explained through the terms of personal skills and resources, which are key elements in Hendry and Kloep’s lifespan model of development (2002). They underlined the importance of personal resources to meet any challenges in human life and although this theory is not directly related to well-being storyline, it refers the equilibrium theory in terms of challenges that an individual faces, and again of how well-being is composed of a fluctuating nature between various elements.

By reviewing the various components, approaches, and theories around well-being concept, we could now better propose a clearer definition of well-being without falling into an already discussed scientific or precise definition, by putting all these elements together. Starting from its components, the multidimensional nature of well-being should consider the balance point between an individual’s resource pool and the challenges faced (Dodge et al. 2012). Hence, stable well-being is when individuals have the psychological, social, and physical resources they need to meet a particular psychological, social and/or physical challenge. This dynamic and comprehensive reference recently proposed by Dodge et al. (2012), includes many of the theories discussed in several disciplines, and considers both subjective well-being (SBW) and objective well-being (OBW) approaches previously mentioned. Moreover, its dynamic nature allows researchers to apply the notion to all individuals independently of age, culture, and gender. In combination with the universal aspect, such definition also represents a valid basis for developing and implementing more precise and innovative measures of well-being within various domains. As Ed Diener and Eunkook Suh observed, “social indicators, subjective well-being measures, and economics indices are needed in unison to understand human quality of life, and to make informed policy decisions [...]. Instead of turf battles over the best indicator, each discipline needs to borrow insights about quality of life from the other fields” (1997). An exhaustive understanding of SWB requires knowledge of how objective conditions influence people’s evaluations of their lives. At the same time, to understand objective indicators and how to select them we need to understand people’s values and how these indicators influence individuals experience of well-being, following a subjective well-being (SWB) approach as well (Diener and Suh 1997).

2.4 Well-being measurement for policy-making

As discussed, the growing interest in the measurement of well-being and quality of life has been central for decision and policy-making. Indeed, the history of ideas around measuring well-being to improve human and public welfares takes its roots starting from the first critics around GDP efficiency as main tool to collect information about nations' welfare. Growing concerns and recognition to this aspect were then given by the release of the Report by the Commission on the Measurement of Economic Performance and Progress published by OECD in 2009. The key message of the report called for a change of perspective within global statistics' systems, from measuring economic production to measuring what shapes people's well-being today and in the future. Their message resonated so loud that it generated a real "cult of the measurable" (Belfiore and Bennett 2007, p. 137) for many domains of research, boosting the dissemination of well-being agendas and public policy guidelines of any kind, either based on objective-list approach or on subjective measures of well-being (Dolan and White 2007). Notably, according to Dolan et al. (2011) the measurement of well-being is essential for three main uses within public policy, i.e. monitoring progress, informing public policy design and policy appraisal. Yet, one might ask why this growing pressure in developing better measures of well-being and human progress to inform public policy? How these measures – mainly SWB measures - can be used to facilitate and guide public policy (Dolan and White 2007; Dolan et al. 2011)? And what changes when the public policy agenda uses the lens of well-being one (Stiglitz et al. 2018)?

As Paul Dolan and Mathew P. White argued in their article (2007), objective indicators of well-being are based on assumptions about basic needs and rights, also defined as "primary goods" by the political philosopher John Rawls (1971). Maslow hierarchy of objective and essential needs states that the most basic needs must be met before people can move up to the more advanced needs. Maslow's theory is based on a pyramid scheme divided in five main levels of essential needs, starting from the bottom up we have physiological, safety, belongingness and love, esteem, and self-actualization needs (Maslow 1954; 1987). Following his argument, the fulfilment of these needs is crucial for people to develop their own well-being. Thus, the primary aim of policy too should be to provide the conditions whereby people are able to get their basic human needs and rights. The objective well-being (OWB) approach aids policymakers on addressing primary and universal needs first. Because many citizens do not currently have these needs met, it is fundamental to target these essential and universal rights as top priority

within international community. This is what has led to the creation of practical lists of objective indicators of well-being as for instance the Human Development Index or the Index of Social Health previously mentioned, monitoring objective circumstances like life expectancy, literacy, income, and violent crimes.

However, while the concept of basic needs as primary goods is a valuable and well shared starting point in discussions of distributive justice, it is no longer sufficient in addressing the complex and increasing challenges of our modern society. Moreover, there are critical questions about what should be on the lists and how the relative importance of the items should be determined. The inadequacy and insufficiency of objective indicators for measuring the level of well-being of the population has also been well documented by the so-called Easterlin paradox, proving that although higher incomes are associated with higher levels of happiness within a country, average levels of happiness for a country do not appear to increase over time in line with increases in average income (see Easterlin 1974, 2005). Despite its limitations (Oswald 1997; Stevenson and Wolfers 2008; Dalziel et al. 2018), Easterlin's theory first tried to see whether GDP growth – hence objective main indicator of well-being at the time – was really a proxy for and a valuable route to happiness. De facto, economic development has historically been identified with growth in GDP per capita, yet since both development and well-being involve not only a quantitative increase in capital accumulation, production, and consumption, but also qualitative social and political aspects, “a radical questioning of growth as an engine of well-being” (Clark and Senik 2011, p. 3) should be reconsidered, paying more attention to how people actually feel about their own lives. In addition, in recent years it has been possible to concretely see how economic policies mainly focused on income or production growth per se have not only little impact on well-being, but they have also brought negative externalities on the environment (climate change phenomenon par excellence), on social connections, on urban structure (examples include gentrification processes), and so on.

All this and more has brought many researchers to conclude that other intrinsic psychological needs, such as positive social relationships, mastery of the environment, self-esteem levels and a good level of trust, also owe to be achieved by policymakers (Dolan et al. 2007). From this point of view, policymakers should therefore engage on the provision of opportunities for individuals to flourish and develop their psychological well-being as well (Dolan and White 2007). The integration of a mental-state or subjective well-being (SWB) approach into objective-list policy goals can provide better policies and therefore more opportunities both in the short and long run, all along promoting compelling changes for the future. What Dolan and

White argue is that policymakers should use SWB to achieve other well-being goals in those circumstances in which objective-list approaches have greater political support (2007). Measures of current SWB can be used to help predict objective outcomes and allocate resources, revealing significant insights about people current and future feelings and actions. Further, investing in SWB measures represents an innovative and valid policy tool for valuating hard to quantify value of non-market goods such as cultural heritage, air pollution, arts benefits, environmental sustainability, cultural participation etc. These measures could be used to aid comparisons between two or more alternatives that are not easily compared using traditional approaches based on objective indicators. Identifying unhappiness causes could better help policymakers to improve for example housing, working and health conditions. Such an approach could be also integrated within decision-making and government processes. Since in many Western countries public policies are composed of separate departments in charge of specific domains (such as culture and education, health, environment and transports) and most interventions in one domain may influence other domains (for example, many health care policies shape social services, or education policies help improving working conditions and general employment etc.), integrating SWB approaches within such policy design dynamics can get to more comprehensive policy evaluations for future actions and investments (Dolan and White 2007).

Nevertheless, such assumptions require an even more precise lens of observation about subjective well-being (SWB) and its determinants (see Flèche et al. 2011). Indeed, the increasing interest in the “economics of happiness” and “well-being economics” has led many researchers to better investigate around what really makes people happy with their overall life. In literature, all the potential influences on well-being that have been identified fall under the main following broad headings: income, personal characteristics, socially developed characteristics, how we spend our time, attitudes, and beliefs towards self\others\life, relationships and the wider economic, social, and political environment. Since their wide-ranging influence and their interaction with one another, literature review around this topic involves not only psychologists and economists, but also many other experts exploring what affects people quality of life. The most agreed upon evidence suggests that poor health, separation, unemployment, and lack of social contact are all strongly negatively associated with SWB (Dolan et al. 2007). Through a regression analysis of subjective well-being scores in Britain, Clark and Oswald (2002) study reveals that unemployment and ill-health, in particular, create enormous psychological costs for people. However, Dolan et al. (2007) review highlights

several issues in drawing firm conclusions about the causes of SWB, including some contradictions about unobserved variables and the lack of certainty on the direction of causality. Moreover, existing evidence base is not as strong as suggested and it is necessary to increase future research with existing panel datasets in order to better explore personal, economic and social factors associated with subjective well-being and thus provide fresh insights for policy relevance. Nevertheless, Dolan's review (2007) suggests starting to focus further on the impact of income, relative income, health, personal and community relationships, employment status and marital status, being the most closely associated and agreed upon things with SWB.

Since multiple studies consistently confirm a robust correlation between SWB and both good physical and mental health, to get the fullest possible understanding of how SWB measures can directly shape public policies, we can take as examples some case studies within health domain. Subjective well-being and health are closely related, and the link could become increasingly important at older ages, reducing the risk of chronic physical illness, and promoting longevity (Stephens, Deaton, and Stone 2014). As shown by the so called "Nun Study" by Snowdon (2001), there is evidence that happier people tend to live longer and are less likely to get a range of diseases and traumas. The study focused on the causes of Alzheimer's disease (AD) for a sample of women living in a convent. The study discovered that nuns with greater signs of depression when they entered the convent, experienced more health problems at a later moment. There was also some evidence that those who were happier once consecrated, they were also likely to live longer (see Brayne 2002). In short, proving that happier people are more able to cope with Alzheimer's disease, it is a more than valuable assumption for public health to integrate a SWB perspective within health policy design process. However, with respect to health, this first example reported by Paul Dolan and Mathew P. White (2007) as well is not the only one. Another significant study on Alzheimer's disease (AD) found that also non-pharmacological therapies – such as engaging in visual arts interventions – reduce neuropsychiatric symptoms and improve quality of life in Alzheimer's patients. According to this research, art-based interventions seem particularly suitable for elders' rehabilitation as they act both on cognitive functions and quality of life (Savazzi et al. 2020). A Swedish fourteen-year follow-up study (Konlaan et al. 2000) ascertained the possible influence of attending various kinds of cultural events or visiting cultural institutions as a determinant of survival, concluding that cultural activities may also have a beneficial effect on longevity and overall people health. Yet art therapy and cultural activities benefits on people well-being are still little explored and underestimated within

public health policies and beyond. Despite that, as we will better see in the next chapters, the use of arts-based methods and interventions in various domains, including public policy and their impact evaluation on people well-being, have been gaining attention in the last few years through the so-called process of “instrumentalization” of culture and the arts (Belfiore 2012). Such process involves ‘culture’ (culture understood according to the cultural policy approach, thus ‘the arts’) being used as means for attaining goals in various policy areas of society as for instance within public health sector; the instrumentalization of culture responds to that culture struggle to find more legitimization and consideration within public policy agenda.

Considering above exploratory case studies, what changes whether different stages in the policy cycle use well-being’s lens? Using well-being metrics in a policy context can deliver many advantages, including providing a wider picture of people’s conditions in any given jurisdiction and drawing attention to outcomes that matter to people’s lives but are not considered in policy analysis because of the lack of suitable metrics. They also help in supporting the strategic alignment of outcomes across government departments, all along promoting more comprehensive evaluations of specific policies at individual level; fostering co-operation and cohesion among government departments, policy spillovers from other policy areas and society-wide patterns can be traced to provide a common language around potential impacts on people’s lives. Moreover, metrics informing on outcomes at the individual and household level enable to focus on inequalities, pockets of deprivation and vulnerability. This aspect contributes to highlight the diversity of people’s experiences through more granular data which respond to the notion of “inclusive growth” promoted by OECD. Within this notion a key component is the sustainability of our actions for tomorrow. Among well-being outcomes today, we need to consider resources for tomorrow. Is economic growth sustainable over time and does it contemplate environmental and social costs? Well-being lens should consider the broad coverage – i.e., economic, environmental, and social of well-being measures even though much progress remains in measuring these capitals. As we see sustainability’s definition is closely linked to a future dimension of well-being which has been first forged by the Brundtland Report (1987) defining sustainable development as growth that “meets the needs of the present without compromising the ability of future generations to meet their needs”. Later, underpinning the conceptual categorisation of sustainable development indicators proposed by the Conference of European Statisticians (UNECE 2014), three dimensions of sustainable development have been distinguished, i.e., human well-being of the present generation in one particular country (referred to as “here and now”), the well-being of future generations (“later”)

and the well-being of people living in other countries (“elsewhere”). This approach enables governments to distinguish to what extent the policy decisions the present generation makes may lead to problems “elsewhere” or “later”. So, by using well-being’s lens in the different stages of the policy cycle not only can deliver more insights at the individual level in the short term, but above all it can provide precious changes in the long term or rather for the future.

Getting so far, another important point to clarify is how integrating mechanisms of well-being indicators in policy decision-making. Making indicators publicly available through routine reporting of well-being statistics is not sufficient, we need to integrate well-being metrics since the beginning of the policy formulation and we also need an established set of tools, models and techniques recognised across the analyst professions within governments. Each country has since developed its own structured mechanisms to integrate such metrics into their policy process (Exton et al. 2018). For example, in Italy well-being indicators are integrated into the steps of the policy cycle of agenda-setting, policy formulation and evaluation since 2016 when a law (Law No. 163 of 4 August 2016) stipulated a set of 12 indicators to be annually reported to Parliament in the context of budgetary discussions. Nevertheless, the Measures of equitable and sustainable well-being (also known as BES Report) are provided by the National Statistical Institute (ISTAT) since 2013 and since 2018 the report has been extended to the local level as well, making it possible to deepen our knowledge of the distribution of well-being in the different areas of the country, assessing territorial inequalities more accurately, and outlining the well-being profiles of individual territories.

However, not all countries have selected the same number or the same type of indicators; it is indeed interesting analysing the reason of such choices in terms of indicators’ typology. In Italy, for instance, some well-being indicators refer to landscape and cultural heritage, but also innovation, research, and creativity. “Someone may find it surprising or even incredible, but in Italy, not only landscape is officially recognized as an essential component of well-being but is also statistically measured in order to access its transformations over time and to compare trends between regions” (Cicerchia 2019). Among the dimensions of well-being considered by BES system, landscape and cultural heritage are certainly those least investigated by the statistical analysis, especially as regards landscape dimension and its impact on well-being (BES 2013). This call for further research has encouraged various scholars (e.g., Cicerchia 2018; 2019) to better investigate landscape as a health resource promoting physical, mental, and social well-being aspects (Abraham et al. 2009). While both BES and OECD systems around landscape and well-being are based on objective data actually available or that can be obtained

(e.g., squatting index, urbanisation index in landscape areas, historical green density etc.), in 2017 the European Commission (EU) has developed the so-called Eurobarometer's system, which measures the individual perception of landscape and cultural heritage, and the importance citizens attach to them (thus following a more subjective well-being approach). From the final report we can read that a good percentage of Italian interviewees within the sample declared to agree with the idea that living next to sites related to European cultural heritage could improve people's quality of life, thus emphasising additional intrinsic psychological needs concerning one's living environment (see ESPON 2022).

As we can see National Statistical Offices (NSOs) do not always employ the same frameworks of international organisations or other leading public bodies – such as the European Commission, all of which further contributes to make it difficult adopting a shared well-being measurement system within policy-decision processes and developing a common language around well-being dimensions. However, these measurement systems' discrepancies are also bound to occur whether considering the complexity of political, cultural, social, and economic traditions of each country and their institutional bodies. For example, in the United Kingdom, the What Works Centre for Well-being¹ is an independent body for well-being evidence, policy and practice collaborating with the government departments as well as with other public and/or private bodies. It offers a wider range of well-being indicators rather than Italy or France, whose main use of well-being indicators is thought for reporting to parliament, so the number of indicators is more limited and controlled by NSOs.

The independent aspect of such agency refers to the so-called “arm's length” public policy principle, which despite it is not a standard term in public policy discussions, it is now widely used to refer to the idea that government should maintain a degree of separation and impartiality when awarding contracts to private companies. This principle helps thus ensure that the contracting process is fair, competitive, and free from undue influence. United Kingdom has indeed based its governance on this principle, differing itself from other countries that adopt more centralized governance systems. Moreover, United Kingdom has been one of the early adopters of subjective well-being and life satisfaction measures in its official measurement systems, playing a prominent role in promoting the use of well-being metrics within Europe area. Indeed, despite the dramatic progress in terms of both methodology and availability of

¹ The [What works Wellbeing centre](#) was founded in 2014 with the purpose to build on the rich and growing data from the UK National Wellbeing Measurement Programme to understand what organisations in government, business, research and civil society can do to improve wellbeing.

SWB data today after the Stiglitz-Sen-Fitoussi Commission Report (2009) publication, not all NSOs have always been including life satisfaction measures in their analysis and they also differ in what types of SWB measures (evaluative measures, experiential well-being, or eudaimonia) to include (see Mahoney 2023).

The prominent attention given by UK to well-being and its measurement is also proved by various academic and institutional publications. Indeed, doing a quick search on Scopus database², the results analysis confirms that not only is there an exponential growth of academic publications around the subject of well-being and measurement since 2008, but also that UK appears as the country with the second highest number of articles published on this topic just behind the United States, making the United Kingdom the leading country within European debate. This type of data analysis is applicable both when searching for keywords such as “well-being and measurement” and when tapping simply “well-being”. Moreover, it is also interesting to observe these documents by subject area and by funding sponsor; when searching for “well-being” keyword, the largest number of resulting articles fall under the subject areas of medicine (27.4 %) and social sciences (16.5 %) – knowing that this branch of science also counts a wide array of academic disciplines including economics, sociology, human geography, linguistics, management, and political science. The database then reports other not specified subject areas (17.3 %) and psychology (12.4 %) as those with more publications. This data confirms again the multi-disciplinary nature of well-being previously discussed. Whereas, concerning the resulting documents by funding sponsors, beyond the prominence of national institutes of health of various kind, European Commission and some economic and social research councils as well cover a significant position within the top list, which again confirms what has been said about the surge in interest by public bodies of integrating well-being indicators in policy decision-making.

2.5 United Kingdom at the forefront for well-being agenda

While defining well-being and its constituent elements has a long history within various disciplines (from ancient philosophy, anthropology, psychology to sociology and economics), measuring well-being as a political and scientific project does not have yet a consistent historic

² Scopus is a comprehensive abstract and citation database of peer-reviewed literature, scientific journals, conference proceedings, and books covering various disciplines across the fields of science, technology, medicine, social sciences, and the arts and humanities. It is a widely used bibliographic database that provides researchers, academics, and institutions with access to a vast collection of scholarly publications and research literature.

background (Oman 2021). The development of specific measures of well-being is a quite recent interest for experts and governments. The United Kingdom started to work towards new well-being indicators and towards policies with an explicit well-being focus since 2005 in response to the UK's Sustainable Development Strategy. The first main result of the new strategy was the launch of the Measuring National Well-being (MNW) programme in 2010, particularly promoted by the Prime Minister David Cameron - the reason why the UK's national well-being measures are often called "Cameron's happiness index" - and conducted by the Office of National Statistics (ONS). The MNW programme took as working definition reference for well-being an adaptation of the World Health Organization's definition of health³ linking health and wellbeing in public discourse (Dalingwater 2019) and stressing again on the idea that well-being "can be best viewed as a multidimensional, shifting concept" (Allin 2007, p. 49; Harper and Price 2011). Indeed, when the UK's Office of National Statistics (ONS) started to produce working papers on well-being, they addressed it as a positive, social, and mental state, not characterized by the absence of pain or discomfort, requiring that the basic needs are met, that people have a sense of purpose and good relationships, social involvement, good health, and other enhancing conditions already mentioned. However, in terms of best methodology to adopt, the debate has always been more complex since as we know even objective well-being data involve many decisions. A number of questions on what to measure and how to measure national well-being animated the national debate of the time and still do (Beaumont 2011; Skilton 2009). Information was already available to help assess the state of the economy, the environment, and other social and economic factors but little was known about what really matters to individuals, when assessing first their own lives, and the country as a whole (see Stiglitz et al. 2009). This issue has been addressed by taking an innovative approach to making the decision on what to measure beyond traditional well-being factors (such income, health, social contact for example) and their own indicators. The methodology chosen to inform this decision became a national well-being debate launched by the Prime Minister and administrated by the ONS. This national exercise collected different kinds of data, using different methods (both objective and subjective well-being measures), starting by asking people what mattered to them about well-being (Oman 2021). The so called "What matters to you?" national debate ran between November 2011 and April 2011 and was conducted both online and at events around UK. It was structured around a consultation paper, which asked five main questions concerning individual things

³ "Health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity. The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition" (WHO 1946, p.2).

about a proposed set of domains (such health, good connections with friends or family, job satisfaction and economic security, present and future conditions of the environment, education and training, etc.) that matter to people and which of them should be reflected in measures of national well-being (Skilton 2009).

The singularity of this project showed that the well-being of the individual is central to the understanding of UK national well-being and that national government cares about its inhabitants; notably, the government proved that by developing a specific programme for wider measures of well-being focused on citizens quality of life as well as economic growth, so that government policies could be also more tailored to the things that really matter to people. It is not surprising that such project has been applauded for its democratic approach to meaning and measurement (Kroll 2011) not only by experts but also by many people who responded to the questions. Indeed, the debate received a significant number of responses from the public among which the majority of comments were in favour of further developments. Since the debate also confirmed that measuring national well-being is a complex challenge, more research and experimental work should be provided for the following steps of the whole programme. Through the national debate, ONS learned about what matters and why in measuring national well-being. The succeeding task was to continue to consult and engage with interested parties throughout the development of a set on national well-being measures that could be trusted and accepted by citizens (Matheson 2011). In order to keep the debate and the research work alive, consultation and engagement from different parties were encouraged at multiple levels. First, ONS should continue its engagement with policy departments so that the whole project could be informed by emerging policy requirements and that policy makers were aware of the well-being data. Secondly, ONS should continue to influence and work with the international agenda, in particular with OECD's and Eurostat programmes, all along keeping its attention to the local dimension. In this regard, many initiatives were promoted to develop well-being research and measurement in many fields, engaging both private and public councils, but also business, charities, voluntary organisations (in general the third sector), and last not least academia and research centres. As highlighted by Jil Matheson (2011), there was a considerable academic interest and research into happiness and individual well-being and since there are now many approaches to the measurement of individual well-being drawing on a range of disciplines, ONS need to work with academia and research centres as well to enable in-depth discussions of issues around national well-being measurement.

According to ONS proposed methodology, also supported by OECD guidelines on measuring subjective well-being (2013), factors directly affecting individual well-being include not only relationships, health, where people live (their local environment and the type of community in which they live), personal finance (households income and wealth), education and skills; but also, what people do, aiming to include work and leisure activities and the balance between them (Beaumont 2011) - same influential factors reported by the What Works Wellbeing centre as well. Not surprisingly, assuming that in economics leisure time is defined as the time not spent at work (see for example Gary Becker's theory of the allocation of time, 1965) and taking the proposition of Dalziel et al. (2018) saying that investment in both human and cultural capitals can enhance the well-being by expanding opportunities to express, develop, and transform people, a wide range of scientific disciplines (and related research centres) studying people behaviours and choices while not working have been also concerned about this national and international debate spread after the launch of MNW programme in 2010 and following the Stiglitz Commission report (2009). While there is not a single definitive research council solely dedicated to this topic, various organisations and institutions have explored, among others, the relationship between leisure activities such sport or arts and culture – widely considered the most significant and prominent leisure activities in many Western countries - and their impact on people well-being (e.g., the Culture and Sport Evidence Programme⁴, 2010). With regards to cultural leisure time activities, such growing research area is part of the so-called “instrumentalization” process of culture and the arts before mentioned, aiming at evidencing culture for policy, in particular evidencing the relationship between culture and the well-being agenda. About that, the following is the most recent and relevant work done by various bodies in UK after the launch of the MNW strategy.

2.6 Leisure time activities and well-being within UK

Starting from What Works Wellbeing centre action we can find that among the various leisure time activities – Lloyd and Auld (2002) grouped leisure activities into six main categories (i.e., mass media, social activities, outdoor activities, sports activities, cultural activities, and hobbies) based on their frequency – the centre chose to analyse “culture, the arts, sport and heritage” addressed under the topic of places and communities where people live. Thus, culture and the arts are seen as possible factors to improve both individuals and

⁴ [The CASE Programme](#): understanding the drivers, impacts and value of engagement in culture and sport is a study into what drives people to engage in culture and sport (CASE, 2010).

communities' wellbeing. For example, as regards visual art and individual mental health, the empirical studies of Paul Dolan and Stefano Testoni (2017) were conducted among people with diagnosed depressive disorders. The same authors also analysed the relationship between engagement in physical activity and subjective well-being among young healthy adults - both of the studies questioning how people spend their leisure time or better what leisure activities affect the most their overall wellbeing. However, while sport or physical activity is today a significant factor in terms of subjective wellbeing and not just - numerous studies have indeed highlighted the psychological, physical, and social benefits associated with regular participation in sporting activities (see Congsheng et al. 2022; Malm et al. 2019) – culture and the arts instead do not benefit the same evidence significance and research attention because of both technical and conceptual reasons (consider for instance the intricate concept of value in cultural studies).

Focusing on leisure time cultural activities, within UK Research and Innovation (UKRI) non-departmental public body⁵, Arts and Humanities Research Council (AHRC) has funded numerous projects exploring the intersections between arts, culture, and well-being. They have supported studies examining diverse aspects of cultural engagement, ranging from arts programs in healthcare settings to community-based cultural initiatives and their impact on individual and societal well-being. One of the latest completed projects⁶ aimed, for instance, at establishing how community representations produced through creative arts practices can be used as forms of evidence to inform health-related policy and service development. Many other projects have been also financed with the intention to unleash innovative ways of using culture to tackle health disparities or social injustices, in tight collaboration with communities, health professionals, scholars, private and public actors.

Since in UK socio-political tradition councils operate within a legal framework defined by national legislation but have a degree of autonomy in decision-making and service delivery also tailored to local needs⁷, it is not surprising that many of the projects financed all have an explicit people and community-oriented purpose as well (Cameron et al. 2013). Their main responsibilities always need to address and represent the interests of their communities, which is the reason why solely research activities around culture, arts and their many aesthetic forms

⁵ [UK Research and Innovation](#) (UKRI) is the national funding agency investing in science and research in the UK. It brings together seven research councils: Arts and Humanities Research Council, Biotechnology and Biological Sciences Research Council, Economic and Social Research Council, Engineering and Physical Sciences Research Council, Medical Research Council, Natural Environment Research Council and Science and Technology Facilities Council.

⁶ [Representing Communities: Developing the Creative Power of People to Improve Health and Well-being](#).

⁷ See [The implications of devolution for England \(2014\)](#).

("art for art's sake") is not so relevant for well-being agenda. The role of the artist, the unfolding of the creative process and its effects on society, the nature of the participants' engagement in that process and the actual benefits that may be produced are often absent from the research, which has brought many arts councils to sponsor projects sitting at the convergence point of research, practice, and policy – each of which feeds off the other.

Arts Council England, for instance, has recently published a summary of evidence relating to the work of the cultural sector in health and well-being and criminal justice, whose corporate plan was to support and celebrate the role played by artists and cultural organisations across various areas of public policy, including health, well-being, and criminal justice. This is because both healthcare and criminal justice are primarily outcomes-based systems, which rely on evidence to create policy. For the Department of Health and agencies, the challenge is to provide universal healthcare as efficiently, effectively, and economically as possible. For the Ministry of Justice and its agencies, the equivalent challenge is to protect the public and rehabilitate offenders in the same cost-effective way. Of course, trying to make the case that arts and culture can deliver a reduction in reoffending statistics is quite problematic, any short-term intervention is unlikely to have that kind of immediate impact, especially because there are several fundamental socio-economics forces in play that impact on reoffending, like employment, personal relationships, and housing (Ings et al. 2018; Taylor et al. 2015). However, what the summary wants to highlight is that since the desired long-term goal is to stop criminality and promote overall well-being, the integrated approach of research, practice, and policy - working together around arts and culture effects on well-being and criminal justice - contribute to put in place the best conditions for any long-term systematic change within social capital dynamics (in line with the definition of sustainable development).

With the same spirit, various academic institutions and related research centres have also conducted pilot studies and hosted research projects examining for instance the relationship between cultural activities participation and well-being. In 2020 the department for Digital, Culture, Media, and Sport (DCMS) within the University College of London published an evidence summary for policy in response to the World Health Organization (WHO) report (2019). This report synthesized the overall debate and findings from the WHO report around "the role of the arts in the prevention of ill health, promotion of health, and management and treatment of illness across the lifespan" (Fancourt et al. 2020, p. 3). However, it focused more on three policy-relevant outcomes such (1) social and (2) youth development, and (3) prevention of mental and physical illness; its aim was reviewing the evidence on how arts

engagement - performing arts, visual arts, design and craft, and culture (e.g., going to museums, galleries, exhibitions, concerts, the theatre, festivals and fairs) - and social prescribing programmes can impact on the three policy-relevant outcomes above. Using a modified version of the Australian “Formulating Recommendations Matrix” (FORM) (Hillier et al. 2011)⁸, Fancourt et al. considered the quality, consistency, generalizability and potential impact of the evidence base for each particular outcome; the findings were then divided according to study type and quality in grade A (suggesting that this evidence can be trusted to guide policy), grade B (suggesting that this evidence can be trusted to guide policy in most situations), grades C and D (suggesting that caution should be taken if developing policy since more research is needed). Such findings suggested that the evidence base on arts and aspects of social cohesion and well-being in young people and adults is strong but weak for physical health and social inequalities, and non-existent for social development, prevention of mental illness, and cognition. Moreover, a number of economic evaluations suggested there may be benefits including returns on investment from implementing arts-based social prescribing (Fancourt et al. 2020).

Despite highlighting the need for further work, various critiques have been argued on how both WHO (2019) and DCMS reports present substantial limitations (Clift et al. 2021). One of the main limitations is the application of medical model frameworks (such the FORM) for recommendations on public policy in the fields of arts and public health. Both reports want to prove such “strong” evidence base to justify policy development on arts, social issues, and health but they finally end up to over-instrumentalise the arts (Mirza 2006) and using this term without any distinction of the specificities characterizing this field, also considering for example culturally contextualised practice. Indeed, many of the studies used were not conducted in the UK, thus how is it possible to draw any credible suggestions for formulating ad hoc policies in the UK when such studies lack any relation with the context to which they are addressed? In a nutshell, the criticism made confirm both the complexity of cultural context, its definition and measurement, research design and methods, as well as the need of moving research and practice forward in the future. As Clift et al. conclude “arts and culture can play an important part in promoting individual and community well-being, but the evidence does not currently show that they are crucial in meeting the challenge of promoting health and reducing social and health inequalities” (2021, p.14).

⁸ The “Formulating Recommendations Matrix” (FORM) judges health evidence in terms of quality and risk of bias, consistency, clinical impact, generalisability, and applicability, as a basis for developing guidelines for clinical interventions (Hillier et al. 2011).

Nevertheless, as reported by Andrew Thompson about the Cultural Value Project - “one of the most in-depth attempts yet made to understand the value of the arts and culture and the difference that they make to individuals and society” (Crossick and Kaszynska 2016, p. 4) in UK – culture and arts engagement are not solely beneficial for mental health, ageing, healthcare environments and social capital but there appears to be a clear evidence of an association between arts and culture participation and self-reported subjective wellbeing, even when social, economic and lifestyle factors are taken into account (Crossick and Kaszynska 2016). Since we have seen that well-being can be both treated as an end in itself or as a contributor to other desirable outcomes (Neve et al. 2013), yet there is still little in-depth research in literature around the relationship between cultural participation and individual wellbeing despite the substantial growing interest of policymakers in subjective well-being (Dolan and White 2007), it is now necessary to briefly clarify the distinction – if any - between art-based interventions and benefits within public health settings aforementioned, and leisure time cultural activities. The latter aiming to enhance both individual people quality of life (their subjective well-being) and fostering social cohesion and identity, not excluding contributing to the overall development of individuals and communities. Such expertise also referred as cultural welfare.

3 The relationship between culture and well-being

3.1 Art-therapy practice vs cultural welfare

Up to this point, we have discussed the ensemble of factors that well-being measurement for policy making literature consider beneficial for people quality of life, differentiating purely objective and major influential factors (as income, health, employment, living environment etc.) from more intrinsic psychological and individual needs hard to quantify merely through objective indicators, as for example social contact, trust in others, safety, the extent of social engagement, what people do when not working and so on. As previously mentioned, the inadequacy of GDP measures and the fact that the majority of national accounts aggregates are inherently focused on total income have led many experts to analyse and try to empirically measure the impact of a wide range of non-income related factors: non-market production, leisure, mental health, the state of the environment and the level of social cohesion, which all impact on the wellbeing of people (Flèche et al. 2011). Many of the case studies reported highlight that with respect to public health (both physical and mental health), leisure activities such art-based endeavours, listening to music, reading, or dance have been proved to provide interesting benefits for people overall well-being encompassing not only health-care based settings, but also community well-being evidence and overall individuals' subjective well-being. Hence, assuming that cultural welfare refers to the well-being and support of individuals and communities in the context of cultural activities, heritage and the arts, what is the difference between art-based interventions within public health settings and cultural welfare, since both affect people's health, be it physical, mental or social? The answer is that art-based interventions within public health settings and cultural welfare share common goals of enhancing overall people well-being and quality of life, what really sets them apart is that they operate within distinct contexts and have different emphases.

Art-based interventions in public health are often designed with a specific health-related goal. This could include improving mental health, alleviating stress, aiding in the recovery process for patients, or addressing public health issues like substance abuse or chronic illness. These interventions are often therapeutic in nature, involving activities such art therapy, music therapy, dance therapy, or other creative modalities. The focus is on using artistic expression as a means to achieve health outcomes and address psychological or emotional needs. The primary target audience for art-based interventions in public health includes individuals dealing with health challenges, patients in healthcare settings, or communities facing specific health-related

issues. The interventions are tailored to address the unique needs of these populations. Briefly, art-based interventions in public health often involve the expertise of trained art therapists or healthcare professionals who integrate creative practices into therapeutic settings. The goal is to provide a structured and supportive environment for individuals dealing with health concerns. On this matter, the studies conducted by Osborn et al. (2023) on arts-literacy interventions for adolescent depression and anxiety symptoms in Kenya or the ones by Savazzi et al. (2016) on art-based interventions for people with Alzheimer's Disease already mentioned, represent effective examples of such perspective.

On the other hand, cultural welfare is a broader concept that encompasses the overall well-being of individuals and communities through cultural activities, heritage, and the arts. It is not exclusively focused on health outcomes but rather on the cultural enrichment of society as a whole. Cultural welfare initiatives may prioritize the preservation of cultural heritage, fostering community engagement in cultural activities, and supporting the arts for the sake of cultural diversity and identity. While individual may benefit from cultural welfare initiatives indirectly affecting their mental and/or physical health, the emphasis extends to the community and the societal level. Cultural welfare seeks to create an environment where people can actively participate in and enjoy cultural activities, contributed to shared cultural experience. While traditional art forms may be included, cultural welfare is not limited to therapeutic interventions. It can encompass a wide range of creative expressions, including visual arts, performing arts, literature, and more. In summary, while there can be overlap between art-based interventions in public health and cultural welfare, the former is specifically tailored for health-related outcomes, often within therapeutic settings, while the latter has a broader cultural and community-centric focus, promoting cultural enrichment and diversity.

The overlapping aspect mentioned is widely exemplified in the literature covering both fields of study and concern art-therapy practice as well. Indeed, modern health-care systems are also concerned with supporting methods improving positive psychological states that may directly influence overall communities' well-being, even though contemplation of large-scale clinical trials to assess the effects of efforts to increase enjoyment of life on longevity are premature. The study conducted by Rapacciuolo et al. (2016) perfectly argues the close relationship of high well-being with key health outcomes both on individuals' quality of life (his own life satisfaction) and the community they live in. And yet we do not know whether well-being is sufficiently modifiable by psychological, societal, or economic interventions to test effects on health outcomes (Steptoe et al. 2014), within health psychology art-therapy practice covers a

special role in terms of fringe healing methods (see Susan 2001). Although art therapy is a relatively young therapeutic discipline (it began as a profession in the mid-20th century), according to American Art therapy Association⁹ this unconventional discipline addresses issues that merely psychotherapy cannot reach. Indeed, it supports personal and relational treatment goals as well as community concerns; it is used to improve cognitive and sensorimotor functions, foster self-esteem, promote insight, enhance social skills, reduce, and resolve conflict and distress, and advance societal and ecological change. Many of which covers the range of influence of both public health practice and cultural welfare settings.

Of course, the role of the arts in healing has a long history (see Susan 2001). From the first cave markings and healing performance rituals, the arts have been used to represent, communicate, and elevate human experience, but their worldwide and official recognition as powerful tools to improve overall wellbeing is quite recent. That is also the reason why arts within public health field have now become a major field of practice and research. The World Health Organization (WHO) published a report on the evidence for the arts in improving health and wellbeing in 2019, recognizing that over the past two decades there has been a major increase in research around the effects of the arts on health and well-being alongside developments in practice and policy activities in different countries across Europe and beyond (Fancourt and Finn, 2019).

However, the path for a comprehensive integration of arts practice across public bodies and agencies is still long. Studying how to measure the impact of the arts on well-being thus represents a roadmap towards both further public attention and dedicate funding. The collection of studies published by the University of Alabama (Karkou et al. 2022) perfectly resumes the ongoing research on different aspects of the arts and their psychological benefits on people. The numerous articles included in the study affirm the value of the arts (be them visual art, art therapy, dance and dance movement therapy, theatre, drama therapy, psychodrama, music and music therapy, or multiple arts therapies) as a cost-effective global resource for keeping people well, living fuller lives and meeting major challenges facing health and social care such as aging, implicit bias, chronic medical conditions, and mental health; offering at the same time valuable evidence and insights into the psychological, physiological, behavioural and also social benefits of the arts.

⁹ The [American Art Therapy Association](#) (AATA) was founded in 1969 and represents one of the world's leading art therapy membership organizations dealing with mental health profession through active art-making, creative process, applied psychological theory and human experience within a psychotherapeutic relationship.

In short, arts benefits affect not only people physical and psychological health, but they also indirectly shape significant prosocial attitudes and overall well-being of societies in line with cultural welfare approach and expertise. Understanding the value of arts and culture in this double perspective – individual subjective well-being and community well-being - makes cultural activities no longer something restricted simply to the leisure time of a few, but a public policy concern. Fredrickson (2005) already argued that broad positive emotions linked to high SWB can help engender social resilience in times of difficulty, facilitating the development of prosocial behaviours among citizens and thus shaping a better society. In addition to voluntary activities or political engagement (e.g., Binder and Freytag 2013) different kinds of cultural activities may also contribute to improve individual SWB, enhancing cognitive and socio-emotional skills and promoting overall well-being of people.

Indeed, beyond the intrinsic values of culture and the arts, engagement with cultural activities is also seen as a potential means to achieve broader positive “side effects” among which we can mention cognitive side effects concerning general academic achievement and intelligence development but also more specific abilities such as problem-solving, critical thinking, memory (as seen with Alzheimer’s case studies), or spatial and geometrical thinking. In addition, it has been observed that for example a museum-based program focused on drawing faces improved creativity outcomes, motivational benefits, and even socio-emotional skills (Kastner et al. 2021), all of which recalls the multiple components of well-being definition we refer to. Thus, emphasizing the potential emotional, cognitive, and economic contributions that can come from bringing culture and the arts a more central role within education programmes, as means to enhance overall well-being and better societies. It may also point to the potential benefit of the social prescribing of the arts, investing in a creative economy and utilizing the arts as preventive measures. Studies that have further explored both the psychological and social benefits of engaging in the arts, have observed that art therapy with adults suffering from personality disorders improved their emotional and social functioning (Haeyen et al. 2020); art therapy practice for adults also helped in reducing anxiety and depression (Havsteen-Franklin et al. 2021). Additional studies focused on how the development of different art practices had the potential to improve overall mental health and well-being for clinical and non-clinical populations (Karkou et al. 2022). A subjective well-being (SWB) approach in defining which indicators more reflect how people actually feel about themselves should thus also consider the impact of the arts on people psychological well-being and therefore research on the outcomes from engagement in the arts need to be further developed as well.

At a social level, subjective well-being measures are also precious indicators that can signal wider problems in people's lives, capture prevailing sentiments, and predict various behaviours. For example, as reported within Stiglitz et al. report (2018), a recent study has shown that a country's level of life satisfaction can be a robust predictor of election results even more than macro-economic variables. The results provide evidence that voters evaluate government performance at least partly in terms of their SWB. "The central findings of the paper contribute to an on-going debate on how best to evaluate policy outcomes and measure national progress", suggesting that it is in politicians' interest not only to make voters financially better off, but also to take steps to comprehensively measure citizens' welfare and formulate policy focused on their subjective well-being (Ward 2015).

3.2 A functional interpretation of culture

So far, we have mentioned different interpretations of the concept of culture, without really clarifying which interpretation is being referred to for the purpose of this work. We introduced this literature review by referring to culture from the anthropological and sociological perspective of Franz Boas. This view defines culture as a set of attitudes, practices and beliefs that are fundamental to the functioning of different societies. Culture in this constituent sense is expressed in a particular society's values and customs, which evolve over time as they are transmitted from one generation to another (Throsby 1995, p. 202). At the international level, the same view is for example what the UNESCO Convention on the Protection and Promotion of the Diversity of Cultural Expressions or the one for the Safeguarding of the Intangible Cultural Heritage promote since their publications (UNESCO 2005, 2003). Since culture is a particularly nuanced and extensive concept widely used in policy-design processes to address global challenges as sustainable development (Wiktor-Mach 2018) or better "culturally sustainable development" (Throsby 1995; Rizzo and Throsby 2006), we need to clarify that this paper is focused on a more functional interpretation of culture in the specific context of economic development, as reported in the U.N World Commission on Culture and Development (WCCD 1995) and also more recently suggested by Dalziel et al. (2018) propositions within the well-being economics framework.

Indeed, as largely discussed by David Throsby, a prominent economist known for his significant contributions to cultural economics, culture is also a set of activities, including all those activities undertaken within "the arts" and more broadly within the so-called "cultural industries" (also known as culture and creative industries – CCIs - and including publishing,

music and performing arts, film and audiovisual industries, visual arts and crafts, design and creative services, heritage and museums, gaming and digital media). According to this second interpretation, culture can be seen as being represented by the “cultural sector” of the economy (Throsby 1995). Since economists traditionally distinguish between three forms of capital: physical capital, human capital, and natural capital; and since many cultural phenomena cited have all the features of capital assets, Throsby (1999) introduced a fourth capital: the so-called cultural capital, which includes both the interpretations of culture mentioned above.

However, the term “cultural capital” is not first minted by Throsby, it is indeed widely associated with Pierre Bourdieu sociological and cultural studies, notably when defining cultural capital as comprising three forms: an embodied state, an objectified state, and an institutionalised state (Bourdieu 1986). Bourdieu’s cultural capital is more intended as a deliberate counter to human capital theory in economics, whereas for Throsby the concept of cultural capital can occur in two forms: as physical capital (embodied in tangible form and having as many features of the physical capital as in economics) and as intellectual capital (the body of ideas, practices, beliefs, practices, etc.). The recognition of their interdependence and the different values – see the notion of cultural values - associated to cultural goods and services from economic capital (Throsby 1995; Rizzo and Throsby 2006) has brought Throsby, cultural economists, and scholars to study the interaction between these two levels of cultural capital.

Assuming that there are several definitions of cultural heritage (e.g., UNESCO, ICOM, etc.) though there is no agreement on a precise specification of how restricted or extensive the concept should be (Rizzo and Throsby 2006). Indeed, Benhamou (2003, p.255) suggests that “heritage is a social construction where boundaries are unstable and blurred” (2003, p.255). We will follow Dalziel et al. (2018) approach describing cultural heritage using the metaphor of cultural capital just outlined above. Since people develop both intellectual capital (or embodied cultural capital) through investing their time in acquiring cultural values and norms (according to Bourdieu’s thought) and investing in conserving and creating cultural capital assets such as historical sites, environmental parks, heritage buildings, sport venues, museums, art works, written literature, traditions of artistic performance etc. Dalziel et al. (2018, p. 49) proposition: “investment in cultural capital can enhance the well-being of households and families by expanding opportunities to express, develop, transform and pass on to the next generation their cultural inheritance” is what prompts experts to measure the number of visitors to heritage sites, the value of tickets sold for arts events, hours of participation in various leisure activities and so on, in order to derive some both objective and subjective well-being evidence. These

kinds of measurements and analysis are commonly labelled as “cultural engagement” or “cultural participation” surveys and it is what has been made with for example the Culture and Sport Evidence Programme (CASE) in the United Kingdom. However, Miles and Sullivan (2012) explored some of the core methodological assumptions underlying the CASE programme emphasising the complexity of addressing the meanings attached to participation and cultural engagement.

As in the case of cultural heritage, there is not a single universally agreed-upon definition around cultural participation or engagement. Multiple voices and approaches on this purpose come both from various international organisations (e.g., OECD 2022; Pessoa and Deloumeaux 2009; Council of Europe 2017; Pasikowska-Schnass 2017 etc.) and various countries following their own cultural policy tradition (Bell and Oakley 2015). For instance, within European area France is widely known as an exemplary country in terms of cultural access, investment, and employment throughout its history. However, as many reports argued (e.g., Pasikowska-Schnass 2017; Council of Europe 2017; ISTAT 2022), cultural participation and access concern also challenges and issues related to inclusivity, accessibility, and reaching unobserved communities. An emblematic and very recent example is for instance the current debate around the rise of Louvre Museum ticket price from January 2024, at the expense of the equal access to culture of an acclaimed democratic country such as France¹⁰.

For this work cultural participation or engagement refers to the active or passive involvement, interaction, or consumption by individuals or groups in a diverse array of cultural activities, including but not limited to artistic performances, visual arts, music, literature, theatre, dance, heritage events, museums, festivals, community arts, creative workshops, and other cultural expressions. It involves formal and informal interactions with cultural elements and may encompass activities that contribute to the creation, preservation, or appreciation of cultural heritage and artistic endeavours. Thus, since cultural participation is part of cultural capital assets, and within our literature review it is argued that cultural participation is beneficial among others factors for people overall well-being, we will focus here on the measurement of subjective well-being from cultural engagement taking available data from annual sample surveys conducted in Italy between 2013 and 2020 through the so-called “Aspects of daily life” multipurpose survey by the Italian National Institute of Statistics (ISTAT). Before delving deeper

¹⁰ See [Billet d'entrée dans les musées : quand les prix montent, l'égalité recule \(inegalites.fr\)](https://inegalites.fr/fr/billet-d-entree-dans-les-musees-quand-les-prix-montent-l-egalite-recule).

into the details of data and methodology, an overview of the main actors dealing with such topics in Italy is summarised next.

3.3 Italy case study: a unique approach to culture

In Italy, the contemporary debate around cultural capital assets, cultural participation and their relationships with overall well-being has been a topic of interest among various scholars, researchers, and cultural policy experts. Maria Rosaria Napolitano (2015) provided a clear and complete panorama of the Italian discussion on the role of culture as a distinctive resource for the economic and social development of the country, citing as well key Italian specialists that wrote a lot around cultural assets, as for instance Salvatore Settis, Tommaso Montanari, Pier Luigi Sacco, or Walter Santagata. Yet, identifying a single individual or specific originator of this debate may be challenging due to the collaborative and evolving nature of both academic discussions and the topic we refer to. Nevertheless, the most influential voices in the debate around cultural engagement and well-being currently operate from and around the Cultural Welfare Center (CCW), an interdisciplinary centre of expertise working on the impact of culture on multiple dimensions of the health and wellbeing. Among CCW more recently cooperative publications and research projects, the Culture for Health Report (Zbranca et al. 2022) offers a broad panorama of the existing evidence of the effects of arts and cultural activities on health and well-being in compliance with the same debates both at international level (e.g., WHO 2019) and at national level in many countries (e.g., the various councils and research centres mentioned for UK).

Among various professionals involved in the centre, Pier Luigi Sacco, Annalisa Cicerchia, Enzo Grossi have explored in particular the relationship between culture and well-being within Italian context. Notably, Sacco more recent findings concern the positive evaluation of the effects of the arts and culture on mental health (Crocata et al. 2014, Grossi et al. 2012, 2018; Osborn et al. 2023). Another case study involving data mining from the Italian Culture and Well-Being Project in 2011 particularly contributed to understand the impact of health status and cultural participation upon psychological well-being. The results showed that, among the various potential factors considered, cultural access unexpectedly ranks as the second most important determinant of psychological well-being, just after the absence of diseases and leading factors such as occupation, age, income, civil status, education, place of living and other essential factors (Grossi et al. 2012; 2010). Whereas Cicerchia's main work as cultural economist is since 2017 more connected to cultural statistics and impact measurement both at

national level as senior researcher for the Italian National Institute for Statistics (ISTAT) and at local level, claiming for designing cultural welfare indicators on a local scale as well (Cicerchia 2022).

At national level, Cicerchia scientific expertise around culture and well-being advocacy has recently contributed to an in-depth project of data collection on culture published by the Ministry of Culture (2023). Notably, the last chapter is dedicated to culture within the so-called 'Measures of equitable and sustainable well-being' programme (also known as BES Report), where unlike other countries culture is addressed through a specific set of indicators (Ministry of Culture 2023, p. 185). Some of these cultural indicators are found within a dedicated domain, such as landscape and cultural heritage, others are present transversally in the domains as education and training, innovation, research, and creativity. This choice reflects the special recognition of culture as a factor of well-being and as a useful indicator for understanding social dynamics and a unique guidance for developing public policies and strategies.

There are finally various foundations and many cultural institutions among museums, theatres, libraries, and cultural centres contributing to the same debate, promoting cultural participation, and improving overall people well-being through cultural and artistic experiences. Indeed, combining research and design, various foundations and cultural institutions have been enhancing the traditional static and passive experience into a suggestive immersive and active experience where the cultural consumer can participate with all senses. Such innovative programmes rely on the findings that emerge from evolving literature examining the impact of museum experience on people's overall well-being (e.g., Cull and Cull 2022; Banzi et al. 2023), favouring among others positive emotions such curiosity, inspiration, enjoyment; reducing stress and promoting relaxation combined with the opportunity for quiet contemplation and reflection; museums and cultural institutions offer opportunities for cognitive stimulation and learning; they serve also as community hubs and cultural spaces where individuals can feel a sense of connection and belonging and where having social interaction. All this may affect people life satisfaction and their overall well-being be it mental, physical, or cultural welfare as previously explored; all of which brought scholars as Chris Hand (2018) to openly question whether the arts make people happy adopting an individual level approach, namely the subjective well-being measurement. Since in Italy literature around measurement of subjective well-being from engagement in cultural assets for public policy purposes, is still not very large and past studies as the ones of Grossi et al. (2011; 2012) adopted a different method and approach, we will fill this gap using econometric inference techniques as methodology and

repeated cross-sectional data from ISTAT “Aspects of Daily Life” survey, similar to Wheatley and Bickerton (2017; 2019) more recent contributions.

4 Cultural consumption effects on subjective well-being of Italian population

4.1 Data and methodology

To explore the relationship between engagement in cultural and leisure activities and subjective well-being, repeated cross-sectional data are extracted from the 2013-2020 waves of the ISTAT Multipurpose survey on households “Aspects of daily life” (AVQ) – an annual sample survey carried out by interviewing a sample of 20,000 households (for a total of about 50,000 people). AVQ survey is part of an integrated system of social surveys and collects fundamental information on individual and households’ daily life, thus providing information on the citizens’ habits and the problems they face in everyday life (ISTAT 2016). In the questionnaires, the thematic areas cover different social aspects consenting to realize which is the quality of individual life, the degree of satisfaction of their life conditions, their economic situation, the area in which they live, the functioning of public utility services and other topics useful to study the quality of life. School, work, family and social life, leisure time, political and social participation, health, lifestyles, access to the services are all investigated from a point of view in which behaviours, motivations, opinions, contribute to define information on Italian society.

Notably, with respect to leisure time activities, this data set provides various insights into engagement with a wide range of creative, cultural, sporting, and voluntary activities, as well as capturing the overall individual life satisfaction and satisfaction with the amount of leisure time among others, all of which are part of the subjective well-being anatomy (Van Praag et al. 2002). Since the purpose of this analysis is mainly exploring the relationship between engagement in cultural activities and subjective well-being, leisure activities are selected and grouped into the following categories: cinema, theatre activities, museums (including art exhibitions), classical music concerts and pop music concerts (as other genre), monuments and historical sites attendance, and books read.

Similarly to Wheatley and Bickerton (2019) study, the dependent variables in the analysis include overall life satisfaction (LS), satisfaction with job, health and with amount of leisure time. Life satisfaction (LS) variable was derived from a ten-point scale question, where 0 = very dissatisfied and 10 = very satisfied. The other satisfaction variables i.e. economic, job, health and leisure time satisfaction were derived from a score out of 4, where 1 = very dissatisfied and 4 = very satisfied in line with AVQ survey questionnaires. Considering the measures of engagement with the cultural activities selected, they were derived from questions of the

following form: “how often in the last 12 months have you been to theatre?” with possible responses as follows: ‘never’, ‘1-3 times’, ‘4-6 times’, ‘7-12 times’, ‘more than 12 times’ as reported within the AVQ questionnaire. However, when measuring theatre, cinema, concerts, museums, monuments attendance, and the number of books read, both a dummy and a continuous variable were created (similarly to Baldin and Bille 2023). In the first case, the variable is equal to 1 if the individual has attended, (or visited) a theatre performance, a concert, a museum, or monument etc. at least once in the previous 12 months. In the second case, the construction of the variable reflects the survey questions. For theatre\cinema\museum etc. participation (‘how often in the last 12 months have you been to the theatre\cinema\museum etc.’), the survey asked for example to select one of the following options: ‘never’, ‘1-3 times’, ‘7-12 times’ or ‘more than 12 times’. Values were then assigned from 0 to 12 taking the average value of the just mentioned options (namely, 0 = never; 2 = 1\3 times; 5 = 4\6 times; 9.5 = 7\12 times; 12 = more than 12 times). Thus, it is the effects of cultural activities in general that is investigated here, rather than the impact of participation in a particular cultural activity (Hand 2018). Additional common leisure time activities such as sport, TV watching, social networks, holidays, were also examined within AVQ questionnaires as potential and possible factors affecting people quality of life, nevertheless for the purpose of this research they are not included in the models. Such inference should be deemed as a limitation since these additional leisure time activities represent lurking variables not considered in the research but that they may affect the interpretation between the explanatory and the response variables.

Besides focus variables, a range of socio-economic and demographic control variables were selected according to the most evidence-based influential elements affecting subjective well-being as reported in the literature (e.g., Flèche et al. 2011; Dolan et al. 2007, 2008), including household economic situation, general health, and social contact. Concerning household economic situation, since the lack of direct income data available, a self-assessment on household financial resources was used as a proxy for income. Respondents’ financial resources were defined according to four main categories: ‘very poor’, ‘poor’, ‘sufficient’, ‘optimal’. Respondents’ general health was measured based on six categories, ranging from very bad to very good. The variable about social contact is derived from the question ‘how often do you meet up with friends in your spare time?’ with six main possible categorical responses, namely ‘every day’, ‘more than once a week’, ‘once a week’, ‘a few times a month’, ‘a few times a year’, ‘never’, ‘do not have friends’. Other important socio-economic and demographic control variables include age, gender, marital status, employment status, level of education, and region

of residency. Respondents' marital status was defined according to five main categories (single\never married or in civil partnership, marries, separated\divorced, widowed). Employment status was evaluated according to the following categories: 'employed', 'inactive', and 'in search'. The level of education was divided into four main education level, namely 'primary school' as the lowest education level, 'middle school', 'high-school diploma' and 'degree or equivalent'. Region of residency within the country (all the twenty Italian regions were included) were also extracted from the survey data set to capture potential variations in overall life satisfaction across regions. However, more precise considerations could have been undertaken with the availability of data related to municipal typology (the latter is not provided in our dataset), considering for instance living in a small town or within a metropolitan area, as similarly investigated in Piper (2015) study.

Analysis of the data was conducted in four stages. First, the average impact of cultural participation – using dummy variables - on overall life satisfaction - was estimated applying a simple Ordinary Least Squares (OLS) (see Table 2). Although life satisfaction (LS) variable is an ordinal variable (also known as ordered variable) where the categories have a natural order, previous empirical studies on life satisfaction and subjective well-being (see Frey et al. 2009; Ferrer-i-Carbonell and Frijters 2004) have shown that analysing it as if it were a cardinal measure does not significantly affect the empirical results. This finding may suggest that while life satisfaction is inherently ordered, the specific numeric values assigned to responses may not be as critical for the outcomes studied, evidencing that “cardinality and OLS method make little difference to estimating ratios between coefficients” (Frey et al. 2009, p. 7) and that a simple linear regression model facilitating coefficients interpretability can be valuable as well for understanding the practical implications of predictor variables on life satisfaction in comparison to more sophisticated models such as the ordered probit.

In particular, the first OLS was conducted to estimate the following linear function:

$$LS_i = \alpha + \beta'_1 X'_i + \beta'_2 Z'_i + \varepsilon_i \quad (1)$$

where LS_i is the life satisfaction score of individual i obtained from the survey responses; X'_i denotes the vector of cultural participation activities under analysis; in the case of this study, it represents theatre, concerts, cinema attendance, museums, monuments visits and books read. Z'_i is the vector of other determinants of individual's life satisfaction as shown in **Table 1**. Unobserved factors and individual differences in the responses are captured within the error term ε_i .

Through the second OLS, the same model was estimated but this time by using continuous variables to assess the average effects of the relative frequency and intensity of cultural engagement on subjective well-being (see Table 2). Such analysis tried to answer the same research question addressed by Wheatley and Bickerton (2019): ‘how do levels of engagement in arts, cultural and leisure time activities impact subjective well-being?’. Then, for the third stage of analysis, spillovers on satisfaction with health, job and amount of leisure time were verified. Indeed, the research question is the following: “do cultural engagement activities have side effects on respondents’ well-being domains, notably health, job, and leisure time?” Since in the AVQ survey, questions on health, job and leisure time satisfactions do not provide an answer from 0 to 10 as for life satisfaction (LS), but they foresee to choose four levels of self-assessment answers, notably ‘not all’ (1), ‘little’ (2), ‘sufficiently’ (3), ‘a lot’ (4), the econometric model adopted is an ordered logit model instead of a simple linear regression model. Generally, according to its own assumptions such statistical technique is used to analyse the relationship between one or more independent variables and an ordinal dependent variable, and to see how well a particular response – in this case between the four ones above mentioned - can be predicted by the responses to other questions. Thus, as dependent variables under analysis (health, job, and leisure time satisfaction) are categorical and ordinal and the purpose is to see the respondents’ probability of giving a particular response within the various self-assessment values. By applying such logit model, the actual research question can be also expressed as follows: how much does cultural participation affect the probability of Italian respondents to fall into these four self-assessment classes considering also various key determinants?

For this purpose, the ordered logit model adopted for health satisfaction dependent variable was:

$$Health\ satisfaction_i^* = \beta'_1 X' + \beta'_2 Z' + \varepsilon_i \quad (2)$$

Where *Health satisfaction_i** represents the unobserved dependent variable (perhaps the exact level of satisfaction proposed by the survey); *X'* denotes the vector of cultural participation activities under analysis, which refer to the same independent variables of previous models; β' are vectors of regression coefficients which this model wishes to estimate and *Z'* stands for other determinants of the dependent variable under observation; ε is the error term. Further while *Health satisfaction_i** cannot properly be observed, it can assume only discrete value, ranging from 1 to 4, such that:

$$\text{Health satisfaction}_i = \begin{cases} 1 & \text{if } \text{Health satisfaction}_i^* \leq \gamma_1 \\ 2 & \text{if } \gamma_1 < \text{Health satisfaction}_i^* \leq \gamma_2 \\ 3 & \text{if } \gamma_2 < \text{Health satisfaction}_i^* \leq \gamma_3 \\ 4 & \text{if } \gamma_3 \leq \text{Health satisfaction}_i^* \end{cases}$$

$\gamma_1, \dots, \gamma_4$ are the four threshold parameters which ensure the latent variable – *Health satisfaction*_{*i*}^{*} - to be observable when it crosses such thresholds. For the third stage, the same model is also applicable for job satisfaction and satisfaction with amount of leisure time where cultural participation variables under analysis are dummy. Within job satisfaction ordered logit model variables on employment status were not included.

Finally, the fourth stage and last logit models (see Table 4) estimated aimed to evaluate potential side effects from cultural participation activities on health, job, and leisure time satisfactions by using this time continuous variables. The research question was to see whether as cultural participation intensity of frequency increases, the probability of responding in a given way with respect to subjective perception of health, job and leisure time satisfactions increases or decreases of x percentage.

4.2 Empirical analysis

Patterns of attendance in selected cultural activities from 2013-2020 waves of Aspects of Daily Life (AVQ) survey are summarised in **Table 1** along with summary statistics for the other variables used in the analysis. As also observed by Hand (2018), life satisfaction variable is often skewed towards the extremely satisfied end of the scale. The mean is indeed 6.9, the mode is 8 on a scale that ranges from 0 to 10. A total of 26.8% of the Italian respondents placed themselves at 8 and 25.5% at 7. Although data under analysis also include year 2020 which was marked by the COVID-19 pandemic, overall life satisfaction of Italian respondents was not particularly affected because questionnaires conducted in 2020 mainly consider as reference period the twelve months preceding the interview (ISTAT 2013).

Table 1 Variables and summary statistics. *Source:* Aspects of Daily Life (AVQ), 2013-2020 waves.

Variable	Description	Mean	St. dev	Min	Max
<i>Dependent variable</i>					
Life satisfaction (LS)	LS score, from 0 (very dissatisfied) to 10 (very satisfied)	6.988	1.721	0	10
Economic satisfaction	Score from 1 to 4 where 1 = not at all, 2 = little, 3 = sufficiently, 4 = a lot	2.433	0.762	1	4
Job satisfaction	Score from 1 to 4 where 1 = not at all, 2 = little, 3 = sufficiently, 4 = a lot	2.917	0.689	1	4
Satisfaction with amount of leisure time	Score from 1 to 4 where 1 = not at all, 2 = little, 3 = sufficiently, 4 = a lot	2.764	0.773	1	4
Health satisfaction	Score from 1 to 4 where 1 = not at all, 2 = little, 3 = sufficiently, 4 = a lot	2.937	0.689	1	4
<i>Independent variable</i>					
<i>Age</i>					
0-2 years old		0.022	0.147	0	1
3-4		0.025	0.156	0	1
6-10		0.046	0.209	0	1
11-13		0.028	0.165	0	1
14-17		0.038	0.192	0	1
18-19		0.018	0.136	0	1
20-24		0.048	0.214	0	1
25-34		0.098	0.298	0	1
35-44		0.135	0.342	0	1
45-54		0.160	0.366	0	1
55-59		0.072	0.259	0	1
60-64		0.066	0.248	0	1
65-74		0.119	0.323	0	1
Over 75		0.119	0.324	0	1

Table 1 (continued)

Variable	Description	Mean	St. dev	Min	Max
Female		0.517	0.499	0	1
<i>Marital status</i>					
Single\never married or in civil partnership		0.371	0.483	0	1
Married		0.466	0.498	0	1
Separated\divorced		0.073	0.261	0	1
Widowed		0.088	0.283	0	1
<i>Educational level</i>					
Degree or equivalent		0.130	0.336	0	1
High-school diploma		0.336	0.472	0	1
Middle school		0.290	0.454	0	1
Primary school		0.242	0.428	0	1
<i>Employment status</i>					
Employed		0.413	0.492	0	1
Inactive		0.481	0.499	0	1
In search		0.104	0.306	0	1
<i>Household financial resources</i>					
Very poor		0.052	0.223	0	1
Poor		0.341	0.474	0	1
Sufficient		0.594	0.491	0	1
Optimal		0.011	0.108	0	1
<i>Friends</i>					
Every day		0.170	0.376	0	1
More than once a week		0.270	0.444	0	1
Once a week		0.206	0.404	0	1
A few times a month		0.187	0.390	0	1
A few times a year		0.095	0.293	0	1
Never		0.053	0.224	0	1
Do not have friends		0.016	0.127	0	1
<i>General health</i>					
Very good		0.201	0.401	0	1
Good		0.486	0.499	0	1
Neither good nor bad		0.252	0.434	0	1
Bad		0.050	0.218	0	1
Very bad		0.009	0.098	0	1
Theatre attendance	1 = individual has attended at least one theatre performance in the previous 12 months; 0 = otherwise	0.191	0.393	0	1
	Sum of the n° of theatre performances attended in the previous 12 months (where 2 = 1\3 times; 5 = 4\6 times; 9.5 = 7\12 times; 12 = more than 12 times)	0.558	1.512	0	12

Table 1 (continued)

Classic music concerts attendance	1 = individual has attended at least one classic music concert in the previous 12 months; 0 = otherwise	0.092	0.290	0	1
	Sum of the n° of classic music concerts attended in the previous 12 months (where 2 = 1\3 times; 5 = 4\6 times; 9.5 = 7\12 times; 12 = more than 12 times)	0.298	1.239	0	12
Pop music concerts attendance	1 = individual has attended at least one pop music concert in the previous 12 months; 0 = otherwise	0.198	0.399	0	1
	Sum of the n° of pop music concerts attended in the previous 12 months (where 2 = 1\3 times; 5 = 4\6 times; 9.5 = 7\12 times; 12 = more than 12 times)	0.575	1.524	0	12
Cinema attendance	1 = individual has attended a cinema in the previous 12 months; 0 = otherwise	0.478	0.499	0	1
	Sum of the n° of cinema attendances in the previous 12 months (where 2 = 1\3 times; 5 = 4\6 times; 9.5 = 7\12 times; 12 = more than 12 times)	1.891	2.869	0	12
Museums or exhibitions attendance	1 = individual has visited a museum or an exhibition in the previous 12 months; 0 = otherwise	0.302	0.459	0	1
	Sum of the n° of museums or exhibitions visits in the previous 12 months (where 2 = 1\3 times; 5 = 4\6 times; 9.5 = 7\12 times; 12 = more than 12 times)	0.942	1.928	0	12
Monuments or archaeological sites attendance	1 = individual has visited a monument or archaeological site in the previous 12 months; 0 = otherwise	0.252	0.434	0	1
	Sum of the n° of monuments or archaeological sites visits in the previous 12 months (where 2 = 1\3 times; 5 = 4\6 times; 9.5 = 7\12 times; 12 = more than 12 times)	0.797	1.841	0	12

Table 1 (continued)

Books read	1 = individual has read a book in the previous 12 months; 0 = otherwise	0.418	0.493	0	1
	Sum of the n° of books read (consider only books read for not strictly scholastic or professional reasons) in the previous 12 months	1.597	4.892	0	51
Number of observations (N = 335,633)					

Standard OLS results are reported in **Table 2** providing initial analysis of the relationship between cultural activities attendance and satisfaction with life. In model 1, dummy variables are used to assess the effects of cultural activities attendance on overall life satisfaction, thus observing whether significant effects on life satisfaction dependent variable can be traced simply by consuming or not such cultural activities. In model 2, continuous variables instead of dummy variables provide understanding on the effects of relative frequency and intensity of cultural consumption over life satisfaction, questioning whether changes in the intensity of cultural consumption may influence Italians satisfaction with life.

Table 2 OLS estimates: life satisfaction equation

	Model 1	Model 2
	Coeff.	Coeff.
Theatre attendance (dummy)	0.078***	
Classical music concerts attendance	0.026**	
Pop music concerts attendance	0.001	
Museums attendance	0.039***	
Monuments attendance	0.030***	
Cinema attendance	0.045***	
Books read	0.064***	
Theatre attendance (continuous)		0.017***
Classical music concerts attendance		0.003
Pop music concerts attendance		-0.005**
Museums attendance		0.008***
Monuments attendance		0.006***
Cinema attendance		0.006***
Books read		0.002***
<i>Age: reference is 14-17 years old</i>		
18-19	-0.209***	-0.219***
20-24	-0.339***	-0.370***
25-34	-0.460***	-0.494***
35-44	-0.475***	-0.510***
45-54	-0.554***	-0.588***
55-59	-0.554***	-0.592***
60-64	-0.446***	-0.485***
65-74	-0.320***	-0.358***
Over 75	-0.321***	-0.021***
Female	0.0113*	0.0197***
<i>Marital status: reference is single\never married or in civil partnership</i>		
Married	0.426***	0.422***
Separated\Divorced	0.076***	0.075***
Widowed	0.107***	0.103***
<i>Educational level: reference is degree or equivalent</i>		
High-school diploma	0.003	-0.013
Middle school	0.012	-0.025**
Primary school	0.006	-0.043***
<i>Employment status: reference is employed</i>		
In search	-0.516***	-0.520***
Inactive	-0.096***	-0.098***
<i>Household financial resources: reference is very poor</i>		
Poor	0.551***	0.558***
Sufficient	1.072***	1.084***
Optimal	1.512***	1.522***

Table 2 (continued)

<i>Region of residency</i>	Yes	Yes
Regional dummies		
<i>Friends: reference is every day</i>		
More than once a week	-0.104***	-0.101***
Once a week	-0.148***	-0.145***
A few times a month	-0.260***	-0.259***
A few times a year	-0.405***	-0.410***
Never	-0.674***	-0.686***
Do not have friends	-0.688***	-0.702***
<i>General health: reference is very good</i>		
Good	-0.365***	-0.364***
Neither good nor bad	-0.808***	-0.811***
Bad	-1.590***	-1.594***
Very bad	-2.501***	-2.507***
Constant	6.984***	7.081***
N	273,856	274,923
R ²	0.185	0.184

The table above only shows coefficients and significance.

***p < 0.010, ** p < 0.050, *p < 0.100

As expected, and seen in previous research (e.g., Hand 2018; Wheatley and Bickerton 2019) both models 1 and 2 shown in **Table 2** reached statistical significance: $F(273,856) = 64$, $p < 0.010$, $R^2 = 0.18$ and $F(274,923) = 64$, $p < 0.010$, $R^2 = 0.18$, respectively. Starting from model 1, attending pop music concerts does not influence overall life satisfaction of Italian respondents (the estimated coefficient is not significant). However, all the other cultural activities considered in this work are significantly associated with increased subjective well-being when other determinants are controlled for (*ceteris paribus condition*). More precisely, all other conditions in the model being equal, going to theatre, classical music concerts, visiting museums (and exhibitions) and monuments (and archaeological sites), going to cinema, and reading books are associated with higher levels of life satisfaction within Italian population. For instance, according to OLS estimates (see Table 2) theatre attendance increases overall life satisfaction score of around 0.078 points. Whether considering two Italian individuals being same age, gender, with same financial resources, education level, living in the same Italian region etc. but the first has attended at least one theatre performance in the previous 12 months and the other not, the first individual reports on average a life satisfaction 0.078 higher than the other.

When considering the other explanatory variables, they show expected results in line with subjective well-being related and reported literature: “the evidence suggests that poor health, separation, unemployment and lack of social contact are all strongly negatively associated with

SWB” (Dolan et al. 2007, p. 94). Indeed, from model 1 estimates married individuals report a higher life satisfaction score when compared to other categories. A higher life satisfaction score is also reported by employed Italian individuals, those who judge ‘optimal’ household financial resources, and have ‘very good’ general health (‘poor health’ decreases overall life satisfaction score of around 2.5 points). Same with respect to social contact, results on how often respondents meet up with friends clearly confirm what research consistently has demonstrated (e.g., Powdthavee 2007; Dolan et al. 2008), that is individuals who meet friends ‘every day’ report a higher subjective well-being compared to all the other categories, and lack of social contact – in this case lack of friends – decreases life satisfaction of almost 0.7 points, being other conditions equal. According to gender, female Italian respondents report a higher level of life satisfaction compared to male respondents (yet weakly significant). Determining whether females are happier than males, or vice versa, is a complex issue that cannot be definitely answered based solely on literature or statistical findings. While some studies suggest that females report higher levels of happiness or life satisfaction compared to males (e.g., Oswald 1997; Van Praag et al. 2002; Dolan et al. 2008), others find no significant gender differences, and some even report that males tend to report higher levels of happiness. Therefore, there is no consistent pattern across studies, also given the complexity of gender, cultural and societal factors as well (Meisenberg and Woodley, 2015). Consistently in line with extant literature on living standards perception between north and south Italy (e.g., Piumatti et al. 2016; Calcagnini and Perugini 2018), region of residency¹¹ is statistically significant for life satisfaction score confirming that Italian individuals living in the southern regions of the country report a substantial happiness penalty compared to northern Italian regions inhabitants. Individuals living in Trentino Alto-Adige region report the highest life satisfaction compared to the other regions¹², whereas those living in Campania report the lowest happiness level, still other factors being equal. It is also interesting to observe the relationship between age and life satisfaction level: 14-17 years old respondents state the highest life satisfaction level, as age increases the level of satisfaction with life decreases until it reaches a minimum around 45-54 years old then rises again, confirming the so-called U-shaped relationship between happiness and age (Dolan et al. 2008; Beja 2018).

¹¹ The coefficient values of the regional dummies and their significance were not reported in the tables.

¹² In particular, Trentino Alto-Adige inhabitants report a life satisfaction score 0.28*** higher than Piemonte region. Campania reports a decrease of around -0.47*** points in the overall life satisfaction score, *ceteris paribus*.

Model 2 considers frequency of attendance into cultural activities: does an extra museum or monument visit or one more time at the theatre, cinema, concerts increase overall life satisfaction? The increase in participation in classical music concerts is not statistically significant (p-value > 0.100), thus there is no expected effect on Italian population; whereas it is negatively significant (p-value < 0.050) the increasing attendance to pop music concerts which decreases overall life satisfaction of Italian population of around 0.0053 points on average, other conditions being equal. Further, results show that Italian respondents reporting a higher frequency of attendance at theatre performances have an average life satisfaction 0.017 higher score compared to the other cultural activities under observation and still considering the *ceteris paribus condition*. On the whole, as also observed by Hand (2018) and Wheatley and Bickerton (2019) results show positive life satisfaction impacts arising from greater cultural engagement, evident in the positive and statistically significant coefficients of theatre, museums, monuments, cinema attendance and books read.

Socio-economic variables results are consistent with related literature and their significance is very much similar to model 1 analysis. Notably for educational qualifications, results state that respondents with a higher educational level – e.g. degree or equivalent – report a better satisfaction with life especially compared to Italian respondents with primary school only. The latter valuing their overall satisfaction with life 0.045 lower than individuals holding a degree (p-value < 0.010). Indeed, as Dolan et al. (2008) reviewed, some studies found a positive relationship between each additional level of education and subjective well-being (e.g., Blanchflower & Oswald, 2004b; Salinas-Jiménez et al. 2011). Overall, research suggests that higher levels of education are associated with higher levels of life satisfaction especially because individuals with more education often have access to better job opportunities, higher incomes, and greater social mobility, which can contribute to overall higher life satisfaction. However, firm conclusions should not be drawn neither since as highlighted by Dolan et al. (2008) education benefits may be positional rather than absolute.

Table 3 Ordered logit estimation

	Model 3		Model 4		Model 5	
	Health satisfaction		Job satisfaction		Leisure time satisfaction	
	Coeff.	Marginal Effect	Coeff.	Marginal Effect	Coeff.	Marginal Effect
Theatre attendance (dummy)	0.062***	(1) -0.0019*** (2) -0.0044*** (3) -0.00049*** (4) 0.0068***	0.130***	(1) -0.0043*** (2) -0.016*** (3) 0.0034*** (4) 0.0170***	0.081***	(1) -0.0046*** (2) -0.0109*** (3) 0.0062*** (4) 0.0093***
Classic music concerts attendance	-0.025		0.102***	(1) -0.0034*** (2) -0.012*** (3) 0.0026*** (4) 0.0133***	0.104***	(1) -0.0059*** (2) -0.0141*** (3) 0.0080*** (4) 0.0120***
Pop music concerts attendance	-0.006		-0.016		0.084***	(1) -0.0048*** (2) -0.0114*** (3) 0.0065*** (4) 0.0097***
Museums attendance	0.062***	(1) -0.0019*** (2) -0.0044*** (3) -0.00049*** (4) 0.0068***	0.035**	(1) -0.0011** (2) -0.0043** (3) 0.0009** (4) 0.0045**	0.041***	(1) -0.0023*** (2) -0.0055*** (3) 0.0031*** (4) 0.0047***
Monuments attendance	0.022*		-0.079***	(1) 0.0026*** (2) 0.0097*** (3) -0.0020*** (4) -0.0103***	-0.007	
Cinema attendance	0.076***	(1) -0.0023*** (2) -0.0053*** (3) -0.0006*** (4) 0.0083***	0.0189		0.131***	(1) -0.0074*** (2) -0.0178*** (3) 0.0101*** (4) 0.0151***
Books read	0.103***	(1) -0.0031*** (2) -0.0072*** (3) -0.0008*** (4) 0.0112***	0.0003		0.118***	(1) -0.0067*** (2) -0.0159*** (3) 0.0090*** (4) 0.0135***

Table 3 (continued)

<i>Age: reference is 14-17 years old</i>			
18-19	-0.193***	-0.178	-0.185***
20-24	-0.355***	-0.287	-0.236***
25-34	-0.569***	-0.368	-0.323***
35-44	-0.707***	-0.361	-0.386***
45-54	-0.904***	-0.393	-0.350***
55-59	-1.039***	-0.372	-0.290***
60-64	-1.030***	-0.286	-0.124***
65-74	-1.031***	-0.034	0.040
Over 75	-1.264***	-0.414	0.053*
Female	-0.065***	-0.003	-0.156***
<i>Marital status: reference is single\never married or in civil partnership</i>			
Married	0.096***	0.115***	-0.066***
Separated\Divorced	0.063***	0.173***	-0.095***
Widowed	0.006	0.205***	-0.096***
<i>Educational level: reference is degree or equivalent</i>			
High-school diploma	-0.042***	-0.121***	0.072***
Middle-school	-0.050***	-0.168***	0.089***
Primary school	-0.071***	-0.314***	0.126***
<i>Employment status: reference is employed</i>			
In search	-0.164***		0.451***
Inactive	-0.184***		0.447***
<i>Household financial resources: reference is very poor</i>			
Poor	0.225***	0.453***	0.291***
Sufficient	0.541***	1.220***	0.642***
Optimal	1.168***	2.172***	1.123***

Table 3 (continued)

<i>Region of residency</i>	Yes	Yes	Yes
Regional dummies			
<i>General health: reference is very good</i>			
Good	-1.521***	-0.444***	-0.454***
Neither good nor bad	-3.101***	-0.802***	-0.780***
Bad	-5.147***	-1.057***	-1.302***
Very bad	-6.230***	-1.315***	-2.003***
<i>Friends: reference is very good</i>			
More than once a week	-0.787***	-0.156***	-0.281***
Once a week	-0.155***	-0.169***	-0.565***
A few times a month	-0.238***	-0.276***	-0.845***
A few times a year	-0.396***	-0.374***	-1.146***
Never	-0.667***	-0.402***	-1.581***
Do not have friends	-0.630***	-0.479***	-1.530***
N	274, 746	119,199	274, 362
R ²	0.234	0.0445	0.0675

The table above only shows coefficients and significance.

(1), (2), (3), (4) denote the thresholds parameters for health, job, and leisure time satisfaction, where 1 = not at all, 2 = little, 3 = sufficiently, 4 = a lot.

***p < 0.010, ** p < 0.050, *p < 0.100

Table 4 Ordered logit estimation

	Model 6		Model 7		Model 8	
	Health satisfaction		Job satisfaction		Leisure time satisfaction	
	Coeff.	Marginal Effect	Coeff.	Marginal Effect	Coeff.	Marginal Effect
Theatre attendance (continuous)	0.0118***	(1) -0.0003*** (2) -0.0008*** (3) -0.00008*** (4) 0.0012***	0.027***	(1) -0.0009*** (2) -0.0033*** (3) 0.0007*** (4) 0.0035***	0.016***	(1) -0.0046*** (2) -0.0109*** (3) 0.0062*** (4) 0.0093***
Classic music concerts attendance	-0.008**	(1) 0.0002** (2) 0.0006** (3) 0.00006** (4) -0.0009**	0.021***	(1) -0.0007*** (2) -0.0026*** (3) 0.0005*** (4) 0.0028***	0.003	
Pop music concerts attendance	-0.001		-0.006		0.020***	(1) -0.0048*** (2) -0.0114*** (3) 0.0065*** (4) 0.0097***
Museums attendance	0.0119***	(1) -0.0003*** (2) -0.0008*** (3) -0.0009*** (4) 0.0012***	0.007*	(1) -0.0002* (2) -0.0009* (3) 0.0002* (4) 0.0010*	0.013***	(1) -0.0023*** (2) -0.0055*** (3) 0.0031*** (4) 0.0047***
Monuments attendance	0.012***	(1) -0.0003*** (2) -0.0009*** (3) -0.00009*** (4) 0.0014***	-0.009**	(1) 0.0003** (2) 0.0012** (3) -0.0002** (4) -0.0012**	0.008***	(1) -0.0004*** (2) -0.0011*** (3) 0.0006*** (4) 0.0009***
Cinema attendance	0.017***	(1) -0.0005*** (2) -0.0012*** (3) -0.00013*** (4) 0.0018***	0.001		0.020***	(1) -0.0074*** (2) -0.0178*** (3) 0.0101*** (4) 0.0151***
Books read	0.002***	(1) -0.00008*** (2) -0.0001** (3) -0.00002*** (4) 0.0002***	0.001		0.010***	(1) -0.0067*** (2) -0.0159*** (3) 0.0090*** (4) 0.0135***

Table 4 (continued)

<i>Age: reference is 14-17 years old</i>			
18-19	-0.213***	-0.157	-0.204***
20-24	-0.394***	-0.266	-0.275***
25-34	-0.606***	-0.349	-0.366***
35-44	-0.738***	-0.341	-0.428***
45-54	-0.936***	-0.375	-0.399***
55-59	-1.074***	-0.358	-0.351***
60-64	-1.065***	-0.275	-0.189***
65-74	-1.066***	-0.024	-0.025
Over 75	-1.303***	-0.398	-0.015
Female	-0.053***	-0.003	-0.144***
<i>Marital status: reference is single\never married or in civil partnership</i>			
Married	0.098***	0.113***	-0.065***
Separated\Divorced	0.065***	0.171***	-0.092***
Widowed	0.008	0.205***	-0.095***
<i>Educational level: reference is degree or equivalent</i>			
High-school diploma	-0.054***	-0.120***	0.065***
Middle-school	-0.085***	-0.168***	0.059***
Primary school	-0.122***	-0.316***	0.080***
<i>Employment status: reference is employed</i>			
In search	-0.165***		0.446***
Inactive	-0.183***		0.442***
<i>Household financial resources: reference is very poor</i>			
Poor	0.229***	0.453***	0.297***
Sufficient	0.548***	1.222***	0.652***
Optimal	1.170***	2.174***	1.125***

Table 4 (continued)

<i>Region of residency</i>	Yes	Yes	Yes
Regional dummies			
<i>General health: reference is very good</i>			
Good	-1.518***	-0.443***	-0.450***
Neither good nor bad	-3.099***	-0.802***	-0.780***
Bad	-5.141***	-1.061***	-1.306***
Very bad	-6.224***	-1.315***	-2.010***
<i>Friends: reference is very good</i>			
More than once a week	-0.073***	-0.155***	-0.276***
Once a week	-0.148***	-0.169***	-0.559***
A few times a month	-0.231***	-0.277***	-0.840**
A few times a year	-0.394***	-0.378***	-1.147***
Never	-0.676***	-0.406***	-1.597***
Do not have friends	-0.639***	-0.492***	-1.545***
N	275,840	119,549	275,430
R ²	0.2335	0.0443	0.0673

The table above only shows coefficients and significance.

(1), (2), (3), (4) denote the thresholds parameters for health, job, and leisure time satisfaction, where 1 = not at all, 2 = little, 3 = sufficiently, 4 = a lot.

***p < 0.010, ** p < 0.050, *p < 0.100.

The logit estimations shown in **Table 3** verify whether there are unintended effects of cultural activities engagement on Italian population health satisfaction first, satisfaction with job secondly, and third with amount of leisure time. Focusing on the variables of interest for this study, the results of all models seem statistically significant, and the empirical evidence attests overall positive relationships with health, job, and amount of leisure time satisfactions. Attending theatre performances generates positive and statistically significant results for all the three response variables under observation. Considering for instance health satisfaction response variable, outcomes display that not only theatre attendance, but also museums visits, going to cinema and reading books have significant and positive spillover effects on Italians health satisfaction. For Italian respondents reporting attending theatre performances, the probability of answering to be very dissatisfied with their health decreases of 0.19 %, of 0.44% of answering 'little' satisfied, and of 0.049% of answering quite satisfied ('sufficiently') compared to those respondents who never attend theatre. Whereas the probability of Italian respondents answering to be very satisfied with their health increases of 0.68 % for those who have attended at least one theatre performance in the previous 12 months. Nearly the same percentages are valid also for museums and exhibitions attendance. Higher results concern cinema attenders and book readers. For respondents attending cinema, the probability of answering to be very dissatisfied ('not at all') with their health decreases of 0,23% and the probability of answering to be very satisfied increases of 0,83%. Such probability increases even more for books readers. Health satisfaction positive spillovers are weakly significant for monuments and archaeological sites visitors (p -value < 0.100), and insignificant for concerts (p -value > 0.100).

Consistent with literature, model 3 confirms also quite strong negative associations between health satisfaction, age, employment status and education level. Although their relationship is multifaceted and influenced by various factors (e.g., gender, access to healthcare resources etc.), older adults report a significant lower health satisfaction compared to young people; sign and significance of employment status results highlight that individuals who are employed may report higher levels of health satisfaction due to financial stability, social connections, and a sense of purpose, compared to inactive individuals who may experience higher levels of stress, financial strain, and social isolation, leading to lower health satisfaction (see Pisani 2009; Emerson et al. 2018). Here, higher education levels are also associated with better health satisfaction outcomes:

individuals with higher levels of education tend to have better access to healthcare services, greater health literacy, and healthier lifestyle behaviours, which can all contribute to higher health satisfaction. Some general considerations on healthcare services and infrastructure can be drawn for region of residency as well, as results show quite strong significance. Indeed, respondents living in the northern regions of Italy (e.g., Trentino Alto-Adige) report higher levels of health satisfaction (coefficients are positive and significant), compared to those living in the south. Campania region inhabitants show a particularly strong decrease in their overall health satisfaction, which underlines that northern Italian regions benefit from better public healthcare resources than southern regions, confirming a well-known inequality within national healthcare system.

As also observed by Wheatley and Bickerton (2019), lesser statistical significance or no significance at all are found between engagement in museums, cinema (no significance), reading books (no significance) cultural activities and job satisfaction (compared to health satisfaction results). Nevertheless, for Italian theatre consumers the probability to respond 'not at all' to job satisfaction query decreases of around 0,43%, and of 0,16% for those who answered being 'little' satisfied with their job. On the other hand, for Italians who attend theatre performances the probability of answering to be quite satisfied with their job increases of 0,34% and of 1,7% for those who are very satisfied. Higher statistical significance can be observed for classic music concerts attenders. Notably, for those who attend classical music concerts the probability of answering 'not at all' for job satisfaction level decreases of 0,34%, of 1,2% for those who are 'little' satisfied, still compared to people who do not attend such activities. Whereas the probability to answer 'sufficiently' satisfied increases of 0,26% and to answer 'very satisfied' of 1,3 %. With respect to museums and exhibitions attendance, the probability to answer to be very dissatisfied with job decreases of 0,11% compared to people not attending museums at all, and of 0,43% for people saying to be 'little' satisfied with their job. In contrast, the probability increases of 0,09% for those who are 'sufficiently' satisfied and very satisfied (0,45%). Visiting monuments and archaeological sites are negatively associated with job satisfaction but still significant. For people attending monuments and archaeological sites the probability to answer 'sufficiently' satisfied and 'very' satisfied with their job decreases of 0,20% and 1,03% respectively. And both the probabilities to answer 'not at all' and 'little' satisfied increase of 0,26% and 0,97% respectively, evidencing a clear

negative association between such cultural activity and job satisfaction. However, a clear explanation of such results cannot be provided here.

Considering the other explanatory variables within model 4, satisfaction with job and educational qualifications are positively associated showing that with higher levels of education Italians respondents report higher job satisfaction, on the contrary, individuals with solely primary school show lower levels of job satisfaction. Despite the evidence given by such results and within literature, Solomon et al. (2021) stresses also important trade-offs to consider when examining the education-job satisfaction link. Additional positive associations can be drawn for friends' relationships (for instance, people who meet up with their friends 'more than once a week' report a higher probability to be more satisfied with their job than people who 'do not have friends'), and general health (people who report a 'good' or 'very good' general health seem more satisfied with job than people with 'very bad' general health conditions).

Most significant results can be observed whether focusing on model 5. The logit estimations indicate significant associations between leisure time satisfaction and engagement in all cultural activities analysed, except for monuments and archaeological sites attendance (results are statistically insignificant for this latter cultural activity). Focusing on theatre performances, the probability of reporting to be very dissatisfied ('not at all') with leisure time decreases of around 0,46% for Italians respondents going to theatre. Whereas the probability to be very satisfied with the amount of leisure time increases of 0,93% for theatre consumers, compared to those who have not attended at least one theatre performance in the previous 12 months. As opposed to previous models, participating into pop music concerts is statistically significant for leisure time satisfaction. The probability of Italian respondents reporting to be very dissatisfied with their leisure time decreases of around 0,48% for those who attends such concerts and the probability to report being very satisfied increases of 0,97% compared to those who do not attend pop music concerts. With higher results, similar interpretations on leisure time satisfaction can be made for individuals going to cinema and reading books. Once again, the other control variables generate results consistent with related literature, for example estimates for demographics such as age confirm a U-shaped relationship between satisfaction with leisure time and respondents' age (Van Praag et al. 2002). Various factors including health status, lifestyle preferences, socio-economic circumstances should also

be considered in the analysis, however, model 5 results show that as age increases leisure time satisfaction decreases until reaching a minimum at 45-54 years old, then it increases again. The explanation can be found in the fact that once people reach retirement, individual at older age have on average more free leisure time for themselves which accordingly may affect their overall leisure time satisfaction. Also, more education may lead to less satisfaction with leisure and males enjoy leisure time more than females (Van Praag et al. 2002, p. 38).

Logit models shown in **Table 4** verified whether also greater cultural participation increases or decreases on average the probability to respond in one of the four threshold parameters associated to health, job, and leisure time satisfactions, where 1 = not at all, 2 = little, 3 = sufficiently, 4 = a lot. Results show positive and significant marginal benefits of theatre performances, museums and exhibitions visits on the probability to answer in the highest categories of value (i.e., 3 = sufficiently, 4 = a lot) for health, job, and leisure time satisfactions of Italian population. For instance, on average an additional theatre performance, increases the likelihood of being very satisfied (4) with one's own health of around 0,12%, and decreases for the other parameters. For health satisfaction, significant and positive probability-associations were found also for museums, monuments, cinema, and number of books read. Overall, engagement in all cultural activities under analysis except for classical music concerts was found to spillover positively into leisure time satisfaction. For health and job satisfactions spillovers, again it is greater theatre attendance that seem to better influence the probability to answer 'a lot' (4) for both health and job satisfaction.

5 Discussion and conclusions

The primary contribution of this master thesis was that to extend literature on the relationship between subjective well-being and cultural capital assets - notably cultural activities engagement - within Italian context, especially considering that similar and more recent studies were conducted using UK data (e.g., Wheatley and Bickerton 2017, 2016), a representative sample of Croatian citizens (Brajša-Žganec et al. 2011), and an Italian sample of 1500 individuals (Grossi et al. 2011), yet processed through various methodologies. Via a large-scale cross-sectional national data from ISTAT Aspects of Daily Life (AVQ) survey, this work provided new evidence of cultural activities having a positive relationship with overall satisfaction with life, encompassing various aspects of SBW measurement as well. For this purpose, an econometric analysis using linear regressions (OLS) and ordered logit models was undertaken to assess the effects of some cultural activities' engagement - such as going to theatre, cinema, concerts, visiting museums, monuments and reading books - on four measures of SWB. First by simply considering life satisfaction (LS) and individuals who attended at least one cultural activity in the previous 12 months or not. Secondly seeing whether greater engagement in terms of intensity of frequency also contributes to greater life satisfaction levels. Then, logit estimations were calculated for verifying any potential side effects on health, job, and leisure time satisfaction from such cultural consumptions.

As reported in more detail in this work-related literature (see Chapter 1), the growing attention in recent years on this topic has led several researchers to measure even microeconomic aspects of people daily life that are quite difficult to track by simply taking large-scale data samples and looking retrospectively. The effects of cultural leisure time activities on people well-being might arise a sense of pleasure, and a sense of escape (McCarthy et al. 2004), but also a variety of effects as previously mentioned, from personal development, social connections, improving mental health, to providing educational opportunities and promoting creativity and innovation (see Chapter 3). However, all such potential outcomes are not constant and uniform (temporal dynamics issue), they can change in intensity when observing individual subjective well-being just after such cultural consumption or analysing it later on in time, as in this case. Also, they are not observable as determining factors on their own without considering many other explanatory aspects. Since cultural activities selected for this research represent also

social and relational activities to spend outside and with other people (such assumption might be less obvious for reading books); and as Bruni and Stanca (2008) underlined, life satisfaction is positively affected by social contact, thus positive associations found here should also consider that allocating time to such cultural activities which involve social interaction may more easily increase overall life satisfaction (endogeneity issue). Nevertheless, we included a socialisation variable in the estimation (i.e. friends variable) specifically to avoid such issue.

Other limitations of the interrelations found here concern the econometric models used. As also observed by Hand (2018), “such methods may not fully identify effects of independent variables on dependent variables where the effect is not uniform across values of the dependent variable” and considering the lack of income data, municipal typology of residency, and other possible confounding variables which are difficult to control for in observational studies, different and more precise results could have come out. Such analysis can thus establish positive associations and correlations between cultural engagement and subjective well-being but cannot determine causality. Furthermore, inherent measurement issues involve using self-reported measures which may be subject to measurement errors, social desirability bias, and response bias, although such research conforms OECD guidelines and recommendations (2013) all along with established literature supporting the validity and interpersonal comparability of subjective well-being measures (Frey et al. 2009; Stutzer and Frey 2010). The estimation of subjective well-being equations is also linked with endogeneity issues. Endogeneity occurs when the independent variables in regression models are correlated with the error term, leading to biased coefficient estimates and erroneous conclusions. In the context of cultural participation and subjective well-being endogeneity may arise due to the reverse causality (i.e. life satisfaction influencing greater cultural engagement) or omitted variable bias (i.e. unobserved factors – such as income – influencing both cultural participation and subjective well-being). To alleviate such issues, job satisfaction data and self-assessment measures on household financial resources (used here as a proxy for income) help to consider whether the subjective perception of one’s own job and his\her own financial resources are able to satisfy his\her own needs. With respect to reverse causality, additional subjective well-being domains such as health satisfaction, and leisure time satisfaction are also considered in the analysis. While empirical analysis can offer valuable insights into the relationship between cultural engagement and subjective well-being and

serve as a proxy for both people individual and cultural welfare (Stutzer and Frey 2010), researchers should be aware of its limitations and consider complementary methods, such as longitudinal studies, experimental designs, and qualitative approaches, to enhance the validity and robustness of their findings. Integrating multiple methods can provide a more comprehensive understanding of the complex dynamics underlying cultural participation and its effects on people well-being.

However, according to recommended criteria for subjective well-being measures in economics (Frey et al. 2009; Stutzer and Frey 2010) this work seems to respect valid proxies for individual and cultural welfare, using large-scale cross-sectional data (inclusiveness criterion), ensuring interpersonal comparability among individuals, having acceptable measurement errors and no systematic ones. Moreover, desegregating cultural activities both in terms of typology (AVQ survey distinguished between classical music concerts and pop music concerts) and attendance frequency might help to untangle the major source of the effect (Hand 2018, p. 282). Further, since AVQ questionnaires capture Italian respondents' participation into cultural activities over 12 months prior to the survey, reported estimations seem to endure over time and their statistical significance would seem to suggest that the effects of cultural activities engagement goes beyond mere temporary sense of pleasure and ephemeral sense of escape; and may imply the importance of variety of cultural consumption for overall subjective well-being, as long as such cultural experiences are not compressed into a short span of time (Etkin and Mogilner 2016). Of course, the immediate effects of such consumption are larger than those found here, but the purpose of this study was to draw attention on the importance of cultural engagement for enhancing overall life satisfaction in the long-run, supporting cultural policies that are evidence-based and centred on well-being and that promote cultural accessibility as a way to improve people's quality of life as a whole.

From models 1 and 2, results observed that there is a significant positive association between life satisfaction of Italian individuals reporting to have consumed at least one cultural activity in the previous 12 months and life satisfaction of those who have not attended such cultural activities. And that as cultural participation increases, so does the average of overall people life satisfaction. It is also interesting to see how effects on life satisfaction differ across type of institutions and/or activity (theatre vs museums, cinema vs classical music concerts). In particular, attending theatre performances seems to

contribute positively to overall life satisfaction, both in terms of difference between attendance or not and in terms of intensity of frequency. Similar considerations were observable when looking at logit estimations, where the probability to be very satisfied with health, job, and leisure time on average increases more for respondents going to theatre than for other cultural activities. OLS results showed also that attending pop music concerts does not seem to be a significant determinant of life satisfaction. If one considers the intensity of frequency (continuous variables), there was even a slight decrease in life satisfaction score.

The question that naturally arises is the following: why theatre performances seem to greater contribute to self-assessment subjective well-being measures compared to the other cultural activities under analysis? Among the most pleasurable experiences for people, theatre is ranked ahead museums and exhibitions also in Bryson and MacKerron study (2017), confirming theatre attendance having greater influence on overall subjective well-being. As recently observed by Baldin and Bille (2023), theatre performances offer an immersive and engaging experience where the live interaction between actors and the audience creates a unique atmosphere that can evoke a wide range of emotions, from joy and excitement to empathy and contemplation, compared to what people can experience in common museums or monuments visits. Moreover, theatre performances are known to be more expensive than prices for museums or monuments access, thus conferring an aura of greater distinction compared to recognised cultural activities that are more part of leisure time habits for many people in Italy, and maybe for this reason theatre attendance is perceived “as something special adding to life satisfaction” (Baldin and Bille 2023, p. 278).

The ordinal logit analysis of Table 3 found positive marginal influences in health satisfaction from engagement in cultural activities such theatre, museums visits, cinema and reading books; in job satisfaction from theatre, classic music concerts and museums attendance, and positive leisure time satisfaction side effects from engagement in all cultural activities under observation except for monuments and archaeological sites. When evaluating for intensity of frequency (Table 4), positive side effects in all three subjective well-being measures (health, job, and leisure time satisfactions) were found from theatre and museums attendance. Cinema attendance and reading books were then found to spillover positively into health and leisure time satisfactions.

Finally, since the results presented here found relatively modest but still positive and significant effects of cultural participation on people subjective well-being in line with previous similar research, and theatre performances seem to rank among the most enjoyable cultural activities for Italian individuals even before museums and art exhibitions, concerts and cinema - future research should better explore whether some cultural activities effects have longer lasting impact on overall subjective well-being than others, as also suggested by Hand 2018; and whether by taking a broader list of cultural activities and better disaggregating them in terms of typology, additional and in-depth results may come out. Moreover, subjective well-being research by offering a proxy for individual welfare opens new ways of tackling questions on public goods which have always been difficult to empirically address for their lack of direct market utility (Stutzer and Frey 2010) as in this case cultural capital assets represent, notably cultural participation. To conclude, the positive and significant evidence observed on overall subjective well-being from cultural engagement should be better explored not only to continue supporting cultural public policies that promote equal cultural accessibility and engagement as means to contribute to people well-being; but also, assessing effects of such public goods on subjective well-being may enable researchers to explicitly evaluate them in utility terms and the trade-off between income and the public good can be directly calculated, thus contributing to understand the specific value of cultural engagement.

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