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Meaning as Inter-connectedness: Theoretical Perspectives and Empirical Evidence

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Abstract

Researchers interested in the study of eudaimonic well-being have devoted increasing efforts in the attempt to define and understand meaning as a core resource fostering human development and successful adaptation to the environmental demands. Conceptual models and empirical findings highlighted the pivotal role of relationships and connectedness in the construction and enhancement of meaning throughout life. In this paper connectedness is discussed from an interdisciplinary perspective, encompassing theoretical frameworks and empirical evidence developed within the natural and social sciences. The cross-disciplinary emphasis on the substantial role of inter-connectedness in shaping living systems and human communities will be highlighted. Taking into account these interdisciplinary convergences and empirical evidence obtained from the psychological investigation of the sources and structure of meaning, three levels of connectedness will be identified – a proximal, a distal and a symbolic connectedness. A comprehensive framework will be proposed, in which inter-connectedness is considered a crucial aspect of the prominent sources of meaning in daily life, as well as the core essence of meaning itself. This approach offers the possibility to explore meaning from a unifying perspective, overcoming disciplinary boundaries and opening new research avenues.

Keywords: meaning, inter-connectedness, culture, symbolic, interdisciplinary

Introduction

Frankl (1963) claimed that humans are characterized by a ‘will to meaning’, an innate drive to find meaning and significance in life, whose failure leads to psychological distress. Endorsing Frankl’s claims, recent studies within positive psychology have highlighted the encompassing role of meaning in life for individual development and well-being (King, Hicks, Krull, & Del Gaiso, 2006; Reker & Woo, 2011; Ryff & Singer, 2008; Steger, Oishi & Kesebir, 2011). In particular, researchers have explored meaning in life as a central component of well-being in the eudaimonic terms of personal growth and self-construal (Baumeister & Vohs, 2002; Deci & Ryan, 2000; Emmons, 1986; Keyes, 2005, 2007; Peterson, Park & Seligman, 2005; Ryff & Singer, 1998, 2008; Steger, Frazier, Oishi & Kaler, 2006; Waterman, 1993). Meaning has been identified as an important indicator of positive functioning (Diener & Seligman, 2004), and flourishing life (Keyes, Shmotkin, & Ryff, 2002; Seligman, 2011).

Meaning in life refers to a sense of coherence in one’s life (Battista & Almond, 1973; Baumeister, 1991; Reker & Wong, 1988), goal directedness or purposefulness (Emmons, 2005; Frankl, 1963; Ryff & Singer, 2008), and the ontological significance of life (Crumbaugh & Maholick, 1964). It encompasses beliefs (Park, 2010), values (Baumeister, 1991) and goals (Emmons, 1999), and serves as an integrating factor giving a sense of identity, and fostering attainment of purposes beyond individuals’ present and solitary selves (Steger & Kashdan, 2009). Given its cognitive (comprehension), motivational (purpose) and ontological (ultimate sense) components, itis connected witha broad range of quality-of-life related dimensions (Baumeister, 1991; Crumbaugh & Maholick, 1964; Emmons, 2005; Steger, 2012). Moreover, meaning in life provides resources to handle existential hardships like loss, sickness, failure, and death (Wong, 2012), substantially contributing to adaptation (Frankl, 1965). It is also claimed that “growth is

possible to the degree to which a person creates or finds meaning in suffering, pain, and adversity" (Emmons, 1999, p.144).

Inter-connectedness as a source of meaning

The growing awareness of the crucial role of meaning in life for human well-being has resulted in an explosion of theoretical and empirical explorations of its structure and contents (Emmons, 2005; Steger, 2012; Wong, 2012). In particular, the identification of sources of meaning has gained the attention of researchers. According to Schnell (2010), sources of meaning can be defined as stable orientations that motivate commitments and give direction to life. They comprise environmental contexts and domains, as well as inner dimensions of self, often explored in terms of contents and processes. Contents refer to experiences, activities, goals, and emotional states that imbue life with meaning, whereas processes refer to the psychological mechanisms involved in the quest for meaning, unfolded through the detection and construction of meaning (Wong, 2012).

The focus on meaning-related contents and processes led to a variety of classifications of possible sources of meaning (Emmons, 2005; Leontiev, 2007; Reker & Wong, 1988; Schnell, 2010; Schlegel & Hicks, 2011; Westerhof, Bohlmeijer & Valenkamp, 2004). Schnell (2010), for example, identified 26 sources of meaning that were categorized into vertical self-transcendence, horizontal self-transcendence, self-actualization, order, and well-being/relatedness. Reker and Wong (1988) proposed 12 sources of meaning that encompass needs at different levels, from the basic biological needs to the transcendent and spiritual ones.

Although these classifications may differ in their organization criteria, all include relatedness and connectedness – with other persons, with the larger society, with nature, with transcendent powers - as core sources of meaning. Various studies have underscored the crucial

role of relations in providing and enhancing meaning in life (Zadro, Williams, & Richardson, 2004; Debats, 1999). McCall and Simmons (1966) claim that social roles offer meaning in life because they provide a belief system that guides values, gives purpose, and creates expectations for the future, stimulating goal formation. Krause (2007) claims that anticipated social support is associated with a deeper sense of meaning over time. Individuals who perceive themselves as belonging to and being accepted by a social group, even though temporarily, report high levels of meaning in life. On the other hand, social exclusion leads to dissatisfaction with life and a loss of meaning (Stillman, Baumeister, Lambert, Crescioni, DeWall & Fincham, 2009), causing both a temporary decrease in meaningfulness of the moments during which one is excluded, and a reduction in the perceived meaningfulness of the whole life (Zadro, Boland, & Richardson, 2006). A healthy connection with the external world leads to a healthy sense of self and an increase in self-esteem, which, in turn, promotes a balanced and meaningful life (Sirgy & Wu, 2009). The capacity to build relationships with others is a sign of maturity and a central aspect of eudaimonic well-being (Ryff & Singer, 2008).

Inter-connectedness across disciplines

While the potential of inter-connectedness to offer meaning has been prominently studied in terms of social relationships, inter-connectedness is a much broader phenomenon, that has been identified in a variety of scientific domains, from physics to biology, from cultural studies to religious ones. Moving from these premises, in the following pages we will explore its conceptualization and role across different disciplinary perspectives, starting from psychology.

Psychology

The centrality of social connectedness is emphasized in various theories and models in psychology (Noller, 2005; Pöhlman, 2001), as well as in well-being research (Deci & Ryan,

2002; Forgeard, Jayawickreme, Kern & Seligman, 2011; Ryff & Keyes, 1995). For example, friendship, love, and the ability to connect with others are common themes in the work of Allport, Maslow, and Erikson (as cited in Ryff & Singer, 2008). Throughout life, individuals are involved in multiple concurrent relationships as individuals have an innate need to belong to social groups and to find meaning in their relationships with others (Stillman et al., 2009). Participation in social groups is crucial for human survival and reproduction as relationships play a crucial role from birth until old age in meeting basic needs (Baumeister, 2005). The dynamics of relationships not only influences one's sense of belonging and personal affect but also one's personal identity and self-esteem. Self Determination Theory (SDT) considers relatedness as one of the fundamental psychological needs and the foundational features of self-actualization (Deci & Ryan, 2000).

Evolutionary and bio-cultural studies

Evidence from evolution theories supports the centrality of inter-connectedness for human existence and well-being. Besides genes, epigenetic mechanisms played a crucial role in promoting human survival and reproduction on the planet (Jablonka & Lamb, 2005). In particular, two epigenetic processes substantially shaped human evolution: social learning (shared with other species) and the creation and transmission of symbolic information. Symbolic information is embedded in material artifacts, normative systems, behavioral rules, and values that do not stem from biology but from social history, though in most cases they are aligned with biological and ecological demands, thus enhancing human adaptation. The creation and transmission of symbolic information rely on the specific human tendency to follow rules (Harré & Secord, 1972), and to build an "invisible reality" made of meanings, ideas, values, and mental representations (Jablonka & Lamb, 2005). These invisible realities, and their material

counterparts, are the core constituents of culture (Richerson & Boyd, 2005; Delle Fave, Massimini & Bassi, 2011).

The development of culture is therefore grounded in both the social and the symbolic features of humans. Bounded rationality makes it impossible for humans to live alone (Simon, 1993). Contrary to the extensive emphasis on self-preservation, the need to belong - which is evolutionarily grounded, due to its survival and reproduction benefits (Baumeister & Leary, 1995; Sedikides, Skowronski, & Dunbar, 2006) - predominates in many circumstances. In order to fulfill it, individuals are ready to sacrifice even the self-preservation need.

Social connections are crucial for the immature newborn's survival, but they are even more relevant for the construction of the individual's identity, which unfolds from socially shared meanings. These meanings encompass representations of reality, values and their hierarchical structure, personal and social goals, roles and interaction patterns among members within groups and communities. They can widely vary across cultures (Triandis 1994), giving rise to culture-specific world outlooks (Massimini & Delle Fave, 2000; Leung & Morris, 2001; Miller, 2001). The intrinsically shared nature of cultural meanings highlights the key aspect of connection and relatedness that characterizes meaning as a general concept.

Religious and spiritual traditions

The dimension of connectedness is further underscored by the religious and spiritual traditions that have been developed within the different human cultures. In fact, most of them emphasize the centrality of relatedness for human well-being. Christianity attributes unequal importance to relatedness stemming from its theodicy. It perceives God as three persons (Father, Son, and Holy Spirit) yet one person, referred as "Trinity". The apparent irreconcilable contradiction of three Gods but One God is made possible by the nature of relationship that

exists among them (O'Collins, 1999). The Greek term Perichoresis (περιχώρησις), meaning 'mutually inhering' or 'mutually indwelling', refers to God's existence as the very nature of relatedness – 'circumincession or 'interpenetration'. One Person/Godhead (Father, Son or Holy Spirit) exists just because there are other Two Persons and there exists relation among them (Rahner, 1970). Within this perspective, One cannot exist without the Other and is complete only through communion with the Other (Letham, 2004). Consequently, Christianity perceives the world, which is created in the image and likeness of Trinitarian God, as a manifestation of Perichoresis. Social consciousness, one of the unique characteristics of Christianity, is grounded in this communion spirituality of Trinity (Grant, 2001).

From an Asian perspective, the Hindu traditions underscore the interconnected nature of the entire universe. In the vision of *Ṛg Veda*, the universe is conceived as an ordered and integrated system in which each part inheres the whole and the whole is balanced by the parts (Eliot, 1988; James, 1969). This worldview is synthesized in the concept of *Ṛta*. Often mistaken for a ritual law or conflated with *Dharma*, *Ṛta* in Sanskrit means "that which is properly joined", rule, truth, and the principle of natural order that regulates and coordinates the activities of the universe and of its components (Mahony, 1998). *Ṛta* is not fatalism; it rather refers to the cosmic order that connects everything, from galaxies to atomic sub-particles, influencing their nature and course. It is the supreme and ultimate foundation of everything, so that even Gods are part of it (Brown, 1992).

The Buddhist scripture *Avatamsaka Sutra* proposes a similar perspective, underscoring the nature of the universe as a whole made of intrinsically intertwined parts, where every being depends on every other being for their existence (Morgan, 2010). The Chinese conceptualization of *Yin* and *Yang* analogously underscores the inter-connected nature of life. *Yin* and *Yang* are two

different but complementary entities that interact within an integrated dynamic system (Graham, 1986). These seemingly contrary forces are interdependent in the natural world, to the extent that they give rise to each other in turn. While preserving their reciprocal differentiation, they can exist as specific entities only within their relation.

An interconnected world-view characterizes most tribal societies as well. Within such a world-view, a person exists in his/her relation. One of the most vivid expressions of this principle is the kinship system, based on the assumption that every person is named in relation to one another. In some tribes, up to 70 relationship terms can be identified (Barnes, 1961; Bleek, 1924). Within this view, the entire cosmos is perceived as a mosaic, consisting in the assemblage of many different parts in unison (King, 2003). In a mosaic, all tesseras differ from each other but all are connected both horizontally and vertically, according to varying patterns of complexity. The whole picture is incomplete in the absence of even just one piece, and the single unit makes no sense without the whole picture. Each part depends on the other and the whole depends on each part (Soosai-Nathan & Delle Fave, 2014). Within the world-view of an inter-connected universe, it is easy for the tribal hunters to see the animal that is being hunted as part of their system and their own self. Hence, hunters would shot an animal only to satisfy basic survival needs (food and clothing), and only after asking pardon from it (Bleek, 1924).

In the African culture, the manifestation of the universal inter-connectedness at the human level is represented by *Ubuntu*, a Nguni word from South Africa, meaning *"humanity to others"*. It addresses humans' inter-connectedness and the responsibility to each other that flows from this connection (Battle, 1997). It can be marked as the social philosophy that animates African culture and its capacity to express compassion, reciprocity, dignity, harmony, and humanity in the interests of building and maintaining community. It is grounded in the belief that a person is

a person through other persons. Battle (1997) claims that Ubuntu reflects the strong interdependent nature of human beings, who truly exist only within a network of family, fellowship, and community relations. In the light of this human tendency to build relationships, the role of Ubuntu as a cultural method to promote mental health has also been discussed (Edwards, Makunga, Ngcobo, & Dhlomo, 2008).

Physics and biology

In spite of the multiplicity of pathways towards growth, elevation and well-being that have been traced across cultures, all traditions conceptualize the highest stage in human development as the dis-identification and transcendence from the individual self, by acknowledging its interconnection with a broader and more complex reality. More recently, quantum theory scientifically confirmed this experientially and traditionally established worldview (Capra, 1999; Jones, 1986), describing the universe as a dynamic web of interconnected energy patterns, in which no entities including humans are isolated (Heisenberg, 1958). In exploring probabilities of existence and energy states, quantum physics highlighted that everything in the universe is fundamentally interconnected and interdependent (Alistair, 1988; Feynman, Leighton, & Sands, 1965). This new understanding of the universe has brought about a substantial change in the scientific worldview, overcoming the classical approach grounded in the representation of a reality made of fundamental and separated blocks of matter (Jayasundar, 2013).

The other radical shift brought in by quantum mechanics was the introduction of mind into the conceptual structure of physical reality, based on the acknowledgement of the central role played by the conscious observers in determining the instant features of reality, through their sensory connection with it (Stapp, 2007).

The dimension of inter-connectedness is becoming increasingly relevant in natural sciences as well. Aristotle's claim that the whole is more than the sum of its parts has been endorsed by system biology. Living organisms are described as complex systems composed by different parts, each of them contributing to the system's functioning and adaptive interaction with the environment, by virtue of their integration as well as a specific differentiation in role and structure (Maturana & Varela, 1986; Nicholis & Prigogine, 1989; Mazzocchi, 2012).

Recently, inter-connectedness and complexity patterns have been experimentally measured at the neurophysiological level (Tononi, 2004; Casali et al., 2013): from this perspective consciousness has been described as an emergent phenomenon grounded into the ability of multiple, functionally specialized areas of the thalamocortical system to interact rapidly and effectively to form an integrated whole.

Three levels of inter-connectedness: an integrated view

Given the centrality of inter-connectedness in the structure of the universe as well as in human existence, it is plausible to claim that connectedness and inter-dependence are to humans as water to the fish. The well-being of humans cannot be conceptualized without inter-connectedness/relatedness as the well-being of a fish without water. Due to such an encompassing role of inter-connectedness for human existence and well-being, it is not surprising to find it among the core sources of meaning. Moreover, theoretical and empirical advancements across disciplines support its pervasive role for the survival and functioning of any living system.

Moving from these premises, we propose a general framework for analyzing inter-connectedness, that encompasses three levels of complexity, gradually including broader systems

and their relationships. More specifically, we suggest to distinguish among proximal, distal and symbolic inter-connectedness.

Proximal connections: family and meaning

Researchers who have explored relationships as a source of meaning have repeatedly identified family as one of the prominent meaningful domains across age groups (Debats, 1999; Lambert, Stillman, Baumeister, Fincham, Hicks, & Graham 2010; O'Connor & Chamberlain, 1996; Prager, 1997; Wong, 1998). The relevance of family to meaning is consistent with Schnell's (2010) definition of sources of meaning as stable elements that provide direction and allow for basic needs' fulfillment. Family is typically a well-anchored life context, which can provide long-term meaning, security, and comfort, as well as consistency between cultural and individual meaning attributions (Delle Fave & Bassi, 2009).

At the empirical level, a study conducted among adult participants living in seven Western countries with the Eudaimonic and Hedonic Happiness Investigation (EHHI, Delle Fave, Brdar, Wissing, Freire, & Vella-Brodrick, 2011) has recently provided detailed information on the specific aspects of family life that give meaning to individual life. In the EHHI, meaning is investigated qualitatively, through open-ended questions inviting participants to list the three most meaningful things in their lives, and to describe why are these things meaningful for them. In addition, scaled questions quantitatively assess the level of meaningfulness perceived in ten major life domains. When asked to identify the three most meaningful things in their life, the majority of the participants across countries referred to family, specifically emphasizing the intrinsic relevance of having a family, and the relational aspects of sharing and reciprocity; interestingly, the pursuit of personal rewards through family accounted for only a marginal amount of answers. When asked about the reasons for considering family as meaningful,

participants prominently emphasized its role in their own psychological life and personal growth, as a value and a source of the ultimate, fundamental life meaning as a whole. They expressed this concept with answers such as “Without it nothing has meaning”; “It makes life worth living”; “Point of reference in life”. Participants also highlighted their role and responsibility as parents and partners, and the importance of sharing and communion under both joyful and difficult circumstances (Delle Fave, Brdar, Wissing, & Vella-Brodrick, 2013). As concerns quantitative assessments of meaningfulness, family scored highest compared with the other life domains. Overall, these findings were consistent across national and age groups.

The investigation of family as a source of meaning among adults, and specifically in relation to parenthood, is even more relevant if we consider meaning as a component of eudaimonic well-being. So far, most studies investigating well-being in relation to parenthood have either focused on the absence of psycho-pathological disorders, especially post-partum depression among mothers (Haga, Lynne, Slinning & Kraft, 2012), or on hedonic indicators of well-being (Dyrdal, Røysamb, Bang Nes & Vittersø, 2011). From this perspective, a drop in life satisfaction was detected among parents of young children (Pavot & Diener 2008) and among multiparous mothers (Kohler, Behrman, & Skytthe, 2005). Only few studies addressed the positive impact of parenthood on personal growth and meaning making, in connection with the perception of high but life-relevant challenges (Taubman – Ben-Ari, Ben Shlomo, & Findler 2012; Delle Fave & Massimini, 2004). More recently, the relation between parenthood and eudaimonic dimensions of well-being (including meaning) was longitudinally explored among second-time mothers, who were administered the EHHI during pregnancy and six months after delivery (Delle Fave, Pozzo, Bassi & Cetin, 2013). Family emerged as the participants’ most meaningful domain in both assessments. The majority of the answers before and after delivery referred to family as an

intrinsically valuable/meaningful domain. As concerns the motives underlying the identification of family as a source of meaning, participants highlighted the substantial impact of family and children on their worldview and self-definition (Schlegel & Hicks, 2011). In line with the findings obtained through EHHI with the international sample previously described, family provided ultimate life meaning, fostered personal growth and self-actualization, and represented a support in facing life difficulties. Moreover, even when participants identified meaning in other life domains (prominently health, standard of living, and work) they often reported family prosperity and well-being and as the underlying motives.

Distal connections: cultural and social meanings

As highlighted in the previous pages, the development and diversification of human cultures comprised the emergence of shared meanings, that orient and shape behaviours, goals and life outlook of individuals and groups. However, only very few studies have addressed the crucial issue of cultural differences in meaning conceptualizations, features and sources. Most theoretical and research contributions concerning meaning were developed within the Western context, in which individuals are considered as fixed and essential selves (Christopher & Hickinbottom, 2008; Becker & Marecek, 2008), who are expected to autonomously attribute personal meanings to both their inner reality, and their proximal and distal social environments. Moving from this individualistic stance, Western psychology primarily focuses on the subjective dimension of meaning, for example the level of autonomy individuals experience in determining which goals and values they want to endorse in their lives (Kristjansson, 2010).

On the contrary in collectivistic societies, that give priority to social harmony, individuals are encouraged to adjust to group and context features, rather than to affirm their own view (Han 2008; Leung, Fernandez-Dols, & Iwawaki, 1992; Morling et al. 2002; Triandis, Chan, Bhawuk,

Iwao, & Sinha, 1995). This crucial difference in shared values necessarily impacts on meaning definition and construction at both the individual and interpersonal levels. Such impact is even more relevant considering the two different patterns of identity development - the independent self-construal and the interdependent one – endorsed by individualistic and collectivistic societies respectively (Markus & Kitayama, 1991).

As previously discussed, the construction of meaning in life directly calls into play the individual self-definition and position in a broader framework: cultural specificities in this respect cannot be therefore ignored or overlooked. This crucial aspect has been recently underscored in reference to well-being studies (Bond, 2013): components of the good life can vary across cultures, based on shared meanings and values that can profoundly orient individuals' conceptualizations of self, life and relations. Culturally salient concepts of indigenous origin need to be operationalized and included in models of well-being, in order to acknowledge the peculiarity of different cultural systems and its impact on individuals' life orientations and meaning-making process.

To the best of our knowledge, little empirical evidence has been gathered on the cultural variations in the conceptualization and role of meaning in daily life. However, the few findings presently available suggest the importance of expanding this aspect. In a study conducted to investigate the perceived presence of and search for meaning in US and Japan (Steger, Kawabata, Shimai & Otake, 2008), American participants reported higher levels of presence of meaning than did their Japanese counterparts, while the opposite emerged for the search for meaning, that scored higher among Japanese participants. These differences were ascribed to the influence of the independent versus inter-dependent self-construal characterizing the two countries, and leading to the construction of a positive and well-defined self-concept among

Americans, compared to a more context-related and less determined view of oneself, life and its ultimate meaning among Japanese participants.

The data collected in seven Western countries through the EHHI highlighted some cultural differences as concerns sources and motives for meaning (Delle Fave, Wissing, et al. 2013). Such differences could be ascribed in some cases to social and contextual factors related to specific historical events and processes, and in other cases to broader cultural features. For example, the prominence of work and health as sources of meaning among Croatian participants was related to the recent independence war and the economic and political transitions that took place in Eastern European countries, negatively affecting people's health, job security, and quality of health services. On the other side, the emergence of religion and spirituality as meaningful things among South African participants was consistent with the substantial role of spirituality and religiosity as life orientations and coping mechanisms across cultural groups and contexts in their country (Temane & Wissing, 2006).

A subsequent study conducted on the same sample, and specifically focused on the role of religion and spirituality, confirmed this interpretation, highlighting that the level of meaningfulness assigned to spirituality and religion differed significantly across countries, with South Africans reporting the highest values, and German and Spanish participants scoring lowest (Delle Fave et al., 2012).

Further empirical findings. A small comparative study conducted with the Eudamonic and Hedonic Happiness Investigation questionnaire (EHHI) among adult participants living in India and Italy (Delle Fave & Coppa, 2009) provided additional hints on the relevance of culture on meaning detection in daily domains. As reported in the previous pages (and described in detail in Delle Fave et al., 2013) in the EHHI the perceived sources of meaning are investigated

qualitatively through an open-ended question inviting participants to list the three most meaningful things in their lives. The sample under examination included 108 participants, 58 Italians (mean age=39, 66% women, 65.5% with college education, 44.8% married, 41.3% with children) and 50 Indians (mean age=35, 74% women, 74% with college education, 42% married, 38% with children). Belongingness to a religious tradition was investigated through an open-ended question, inviting participants to report their religion. Among Italians, 81.1% reported Catholicism; among Indians, the three major religions of the country were represented: 40% of the participants reported being Hindu, 40$ Christian, and 20% Muslim. The study had been previously approved by local ethical committees; all the participants signed an informed consent form before filling out the questionnaires, and they were free to interrupt their participation at any stage of the study. Data coding and storing systems granted anonymity of the information collected.

Following the procedure adopted in all the international studies conducted through EHHI, the answers provided by the participants to the question about meaningful things were attributed numeric codes based on the coding system developed by Delle Fave, Brdar and their colleagues (2011). The coding system was articulated in broad categories, corresponding to the major life domains: work, family, standard of living, interpersonal relationships, health, personal life (inner experiences, emotions, developmental tasks, psychological features of the person), leisure, spirituality/religion, society and community issues, as well as life in general. Two independent coders performed the work, and discrepancies in the categorization of answers were resolved through discussion involving the leading author.

As concerns data analysis, to the purpose of this paper we will focus on the percentage of participants reporting a single life domain in at least one of the three available answers

concerning the most meaningful things. As Table 1 shows, the percentage of participants reporting family, health and leisure among the most meaningful things in their lives was significantly higher among Italians, while significantly more Indians quoted spirituality and religion. The latter finding is not surprising, given the secularization trend presently evident in Western countries (Diener, Tay, & Myers, 2011). It is also worthy noticing that within the Indian sample no significant differences were identified in the pattern of answers across participants belonging to the three different religions.

Also the prominence of leisure among Italians can be ascribed to cultural features. This domain basically flourished in Western industrial contexts, partly as a consequence of the deep differentiation of work tasks and environment from private and social activities and spaces, giving rise to a range of formal and informal activities in which people can invest their time away from productive duties (Dumazedier, 1999, Iso-Ahola 1997). The higher investment in leisure in Western modernized contexts was recently verified in several studies on optimal experience (Delle Fave & Massimini, 1988, 1991; Delle Fave, Bassi & Massimini, 2003; Delle Fave, Massimini & Bassi, 2011). Similarly, the higher emphasis of Italians on health can be related to the stronger focus on personal needs that characterize an individualistic culture.

However, the difference regarding family is more intriguing. The lower percentage of Indians quoting this domain among the most meaningful things in their lives is apparently at odd with the Indian collectivistic culture, in which arranged marriages and joint families are a still widespread reality, even among highly educated people. However, these findings are consistent with those obtained in a larger study on optimal experiences and life trajectories conducted among adolescents from Italy, Nepal and Uganda (Stokart, Cavallo, Fianco & Lombardi 2007; Delle Fave, Massimini & Bassi, 2011). When asked to list their most important life goals, only

Italian students mentioned family in relevant percentages. Nepalese and Ugandan teenagers instead focused on study, work and personal development. The findings in both studies can be interpreted in the light of differences in the cultural meaning of family. In traditional non-Western countries having a family is not a private affair, rather it is the outcome of complex social negotiations, in which the individual autonomy and agency are constrained by contextual rules: individuals belong to extended family groups, in which roles and responsibilities are often shared. Provided that family is the basic unity of society, and the core of each individual's life, it is in a certain sense taken for granted: it pre-exists the person, and it will outlive her. Its meaning is out there, it is not idiosyncratically construed by the person through solitary effort and commitment. For Italians, instead, building a family is a substantially individual task and responsibility, starting from the identification of a suitable partner to the burden of decisions and resource investment related to parenthood and couple relationship with an individualistic context. As stated by Triandis (1994), basic values are substantially shared across cultures, but the meaning individuals and groups attribute to them can widely vary. Family is undoubtedly one of the values shared across cultures, but the variety of meanings and scopes it serves cannot be ignored within meaning research.

Symbolic connections: meaning and self-transcendence

Most theories of meaning (Emmons, 2005; Schnell, 2009; Wong, 1998, 2012) include self-transcendence as a prominent source of meaning. The international findings obtained with the EHHI were consistent with these theories (Delle Fave, Brdar et al., 2011, 2013). Across countries, when referring to the psychological domain as source of meaning, participants quoted eudaimonic dimensions of well-being, such as personal growth, self-actualization, purpose, and harmony. These dimensions share the common feature of tension and commitment towards

higher stages of development, in terms of personal improvement, inner balance and stability, connectedness with the universe, and intrinsic aspirations. This tension towards eudaimonic pursuits – transcending personal limitations, expressing and developing resources, attaining maturity - and the meaning it provides to life are important indicators of the dynamic increase in integration and complexity that takes place in any living system, and that in humans attains its highest expression at the psychological level.

The dimension of self-transcendence emerged even more strikingly as the prominent motive that participants across countries connected to the perceived sources of meaning. The vast majority of study participants (74%) reported symbolic dimensions as the prominent motives that made the quoted life domains meaningful. They referred to values, beliefs, and justification, thus establishing a connection between the life domains identified as sources of meaning – be they family, work, health or relationships – and the abstract and self-transcendent level of symbols, values, and culturally shared meanings.

Other researchers have highlighted that the core of the individual identity is constituted by a representation of oneself and reality grounded in the symbolic realm (McGregor & Little, 1998; Schlegel, Hicks, King, & Arndt, 2011), and orienting behavior and goal pursuits through a lifelong dynamic process defined psychological selection (Massimini & Delle Fave, 2000; Delle Fave, Massimini & Bassi, 2011). As emphasized by Jablonka and Lamb (2005), individual intentionality and direction are two crucial elements supporting the selection and evolution of cultures and societies. In particular, individuals progressively acquire and integrate in their cognitive system new environmental information according to socially shared meanings, but can also generate new information and meanings themselves. Far from being passive carriers of collective meanings, they are active and self-organizing systems, connected to the cultural

meaningful world through idiosyncratic and dynamic processes of internalization and externalization (Vaalsiner, 2007). The individual experience of the world "transforms collective-cultural meanings into a personal-cultural system of sense" (Vaalsiner 2007, p.62), that can be externalized through behaviors and goals, as well as modified with time, through the ceaseless process of revision and integration of past and present experiences that is usually understood as "meaning-making".

Inter-connectedness as the essence of meaning: an interdisciplinary perspective

Definitions of meaning in life remain varied and numerous within the existing literature. They can be however grouped into three broad conceptualizations (Delle Fave, Brdar et al., 2013). The first one emphasizes integration, considering meaning as a sense of coherence, order and connection that allows to perceive events, phenomena, individuals, living beings and other components of reality as parts of a structured and organized whole (Antonovsky, 1987; Heine, Proulx, & Vohs, 2006; Leontiev, 2007). The project-oriented conceptualization instead emphasizes the role of purpose and goals in providing life with direction, scope and ultimately meaning (Emmons, 2005; Frankl, 1963; Steger, Oishi, & Kashdan, 2009). A third and more recent conceptualization tends to combine integration and purposefulness as two co-existing components of meaning (Reker & Wong, 1988; Schnell, 2009; Wong & Fry, 1998).

Notwithstanding the different orientations, all definitions of meaning in life include inter-connectedness and encompass a dynamic process of overcoming an isolated and static self-orientation. The representation of the individual as connected at the intra and inter-personal level is the most basic starting point of the quest for meaning, and the central dimension of meaning in life. Reker (1997, p. 710) defines meaning as 'having a sense of direction, a sense of order, and a reason for existence, a clear sense of personal identity, and a greater social consciousness.'

Baumeister (1991) describes meaning in life as having a sense that one's life has purpose or feeling that one has a place in the grand scheme. Frankl (1963) claimed that a meaningful life is not achieved when one is content with life as it is, but when one extends the self and reaches for a higher and bigger purpose. Self-transcendence (Emmons, 2005; Schnell, 2010), described as movement from self-preoccupation of solitary selves (Reker & Wong, 1988; Steger, Kashdan, Sullivan, & Lorents, 2009), as well as service/contribution to others (Leontiev, 2007) are marked as essential features of meaning.

Such an integral role of connectedness in the definition of meaning leads to the claim that this dimension is not only a critical source of meaning, but also an indispensable component of meaning itself. Humans ceaselessly bring order, coherence and integration in their life through two complementary and intertwined processes: the first one is the moment by moment interpretation of daily experiences and events; the second one is the progressive inclusion of new events and information in the individual life history and developmental trajectory. As previously remarked, meaning making is a dynamic process: throughout their lives, individuals ceaselessly revise their experiences, attribute new meanings to them, expand or narrow their own meaning system (Kunnen & Bosma, 2000). However, if we consider the ceaseless interplay between individuals and their cultural environment, and the reservoir of shared symbolic meanings available within this environment, individual meaning-making is one of the highest expressions of inter-connectedness between the person and the environment (Delle Fave, Massimini & Bassi, 2011).

Moving beyond the human realm, analogous mechanisms can be detected: the preservation and increase of order, coherence and integration in the living universe requires ceaseless energy consumption, that is partly transformed into ordered structures, and partly dissipated (Nicholis &

Prigogine, 1989). If energy is not constantly provided, living systems will tend to homogenize, to lose the specialization and differentiation of their components, and to fall into disorder, entropy and ultimately death. From this perspective, meaning can be considered as the symbolic fuel providing order, coherence, inner connection and integration to the individual and collective life of humans. Consequently, as highlighted by Frankl (1963) and empirically detected by more recent studies (Edwards & Holden, 2003), the loss of meaning can be considered as equivalent to inner death, and it can lead to physical death as well.

As a concluding remark, the conceptual convergences that can be observed across disciplines point to the potential usefulness of a more comprehensive and less discipline-bound view of meaning as a substantial feature of all living systems, grounded in their inter-connected, coherent and ordered nature. This leads us to conclude that meaning, in its very essence, is inter-connectedness.

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Table 1. Comparison between the percentages of Italian and Indian participants quoting the major life domains as most meaningful

Life Domains	Participant %		p[a]
	Italy (N=58)	India (N=50)	
Work	43.1	40.0	n.s.
Family	86.2	40.0	.0001
Standard of living	8.6	4.0	n.s.
Interpersonal Relations	41.3	30.0	n.s.
Health	36.2	4.0	.0001
Personal Growth	20.7	26.0	n.s.
Leisure / Free time	15.5	0.0	.0034
Spirituality/Religion	8.6	32.0	.0030
Society / community issues	5.2	10.0	n.s.
Life in general	3.5	10.0	n.s.

Note: p = Fisher exact test