**Meaning-making profiles during emerging adulthood: a person-oriented approach in the

context of romantic and working conditions**

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Abstract

Empirical evidence proved the existence of different meaning-making profiles among youths, however, it is unknown whether these profiles are related to specific transitional conditions. The present study applied a multi-group Latent Profile Analysis to examine the generalizability and criterion-validity of meaning-making profiles across two samples of emerging and young adults living different contextual situations (pre-COVID-19 vs during COVID-19), and to investigate their association with the balanced vs imbalanced condition in the romantic and work role transition. Three meaning-making profiles, *searchers* (high search, average presence of meaning), *in-between* (low search, average presence), and *fulfilled* (very low search, high presence) were supported by strong generalizability and criterion-validity evidence (i.e. fulfilled individuals showed higher well-being). As expected, older individuals were more likely to be fulfilled, while gender wasn't a predictor of profiles. Imbalanced individuals in love and work were more likely to be *searchers*, while *fulfilled* individuals were predominantly living a balanced condition.

        Keywords: meaning-making, transition to adulthood, person-oriented approach, latent profile analysis, well-being

Youth development: A non-linear transition toward role transitions

Emerging adulthood is the lifetime of exploration of self, others, and the world, to structure a solid identity and system of meanings, to become an adult (Arnett, 2014; Erikson, 1968). During this life period, which starts around the age of 18 up to the thirties, youths spend much of their time exploring a variety of possible life directions and experiment themselves in several role transitions, as completing the education cycle, starting a career work, leaving the parental home, being committed in a stable romantic relationship, and becoming a parent (Billari & Liefbroer, 2010; Chevalier, 2021; Shanahan et al., 2008). Being committed to these developmental milestones is the fertile ground in which young people learn how to become independent, self-sufficient, and responsible adults (Arnett, 2014).

The transition to adulthood is configured today as a complex, recursive, non-linear, and highly personalized process (Billari & Liefbroer, 2010; Shanahan et al., 2008; Sharon, 2016). Indeed, young people are sometimes called to reconsider their choices going backward in their development tasks, and this could happen due to contextual constraints (e.g. losing job forces to return to live with parents and search for work), or due to a reconsideration of their inner values and life-goals (e.g. decide to change lifestyle and professional aspirations). For this reason, youths are frequently engaged in the so-called "yo-yo transition" (Biggart & Walther, 2006). Therefore, the journey toward the transition to adulthood can be described as a swing of micro-transitions (Breunlin, 1988), in which young people can experience moments of imbalance, which push them through role transitions, together with moments of balance, in which they are called to settle in new configurations of self.

During this nonlinear transition, youths engage in the meaning-making process, which is the process by which people construct a solid system of meanings (Poulin & Silver, 2019). The construction of a stable system of meanings is a pre-requisite to entering adult life as it provides the necessary skills to build a solid identity by integrating the experiences into a coherent and integrated vision of oneself, of the surrounding world, and relationships with other people (Negru-Subtirica et al., 2016; Steger et al., 2009). According to one of the most widespread conceptual frameworks (Steger et al., 2006, 2009), the construction of a solid system of meanings emerges from the relation

between the urge to achieve a sense of meaningfulness (i.e. search for meaning) and the perception of a life fulfilled with meaning (i.e. presence of meaning).

Previous studies found that young people activate the meaning-making process in different ways (e.g. Dezutter et al., 2014), and those who perceive a low presence of meaning together with a high search for meaning are the ones with the lowest level of well-being (e.g. Krok, 2018). However, no studies investigated the association between specific meaning-making profiles and the unique transitional condition lived by emerging or young adults. In other words, we miss the knowledge about how the process of meaning-making configures when young people are fronting different role transitions, as it happens in the real life.

The present study investigates on one side the generalizability and criterion-validity of different meaning-making profiles among emerging and young adults, and, on the other side, it assesses whether the balanced vs imbalanced transitional condition lived by young people in the domains of work and romantic relationships is associated with specific meaning-making profiles.

Balanced vs imbalanced conditions in the transition toward adulthood

During the transition to adulthood is quite frequent for youths to live several developmental micro-transitions (Breunlin, 1988) in which they experience periods of *balance* and *imbalance*. Imbalanced situations are those when youths are striving to move from a certain role condition (e.g. fresh graduate student) to a new settled configuration of self (e.g. start the first job career). In other moments of the transition, youths might experience a *condition of balance*, characterized by temporary stability in which youths are called to settle in a new role condition (e.g. freshmen at college, full-time worker). The conditions of balance and imbalance concern the acquisition of so-called transitional markers, which traditionally measure whether young people have acquired specific adult roles, as leaving the parental home, entering the work-life, and starting a romantic relationship (Billari & Liefbroer, 2010; Chevalier, 2021; Mayseless & Keren, 2014; Shanahan et al., 2008). The acquisition of such adult roles is considered a driver towards maturity, autonomy, agency, and independence (Masche, 2008; Zupančič et al., 2014).

As developmental researchers, we might be interested in investigating the transitional moment that precedes the acquisition of a new role, i.e., the imbalanced condition, and compare its

features to those of balanced moments, in which youths are relatively far from a role transition. For example, among a group of university students, we might distinguish between undergraduate students (e.g. freshmen), who are in a more *balanced condition*, as they would reasonably not feel the urge to start envisioning their future career yet, and students at the end of their education cycle (e.g. grad students), who should be in the position of investing energies toward finding meaningful work, thus living an *imbalanced condition*. In the same way, if we observe a group of romantic couples, some could be satisfied with their romantic relationship and reasonably be in a *balanced condition*, while others may be dissatisfied with their romantic relationship, ready to eventually reconsider their choice, thus being in an *imbalanced condition*.

Imbalanced moments are very important as well as delicate moments because they can lead to what Robinson (2020) describes as developmental crises, that are transitional episodes associated with the inability to cope with transitional challenges, with the consequence of experiencing negative psychological outcomes, such as stress and lowering of self-esteem (e.g. Paul & Moser, 2009; Sharon, 2016). Robinson (2019) defined two typologies of developmental crises: the lock-out crisis, experienced by individuals who cannot enter a new role condition (e.g. individual facing failures to find a job), and the lock-in crisis, when an individual is forced to stay in a role condition (e.g. individuals forced to cohabitate with parents; being stuck in a dissatisfying job).

A developmental crisis can be solved if individuals succeed in achieving the desired role configuration. Therefore, experiencing a crisis does not necessarily entail living a pathological malaise, indeed, going through a crisis can be an opportunity to grow and learn new strategies to achieve future life goals. This contributes to the development of solid identity and increases the perception of life meaningfulness and well-being (Michael et al., 2017; Robinson et al., 2019).

The role of the meaning-making process in the transition to adulthood

If individuals get stuck into an imbalanced condition without the possibility to achieve the desired goal (e.g. individual facing failures to find a job), they may consequently experience a *crisis of meaning*, that is feeling one's life as empty, pointless, and lacking meaning, thus experiencing psychological maladjustment (Park, 2010; Schnell, 2010). Crises of meaning usually occur when people are frustrated in their needs and desires, and can be enhanced by the contextual situation lived

by individuals, as unexpected adversities (e.g. traumatic events, Brandstätter et al., 2014; natural disasters, Lew et al., 2020) and socio-contextual constraints (e.g. the constriction of the labor market).

When individuals fall into a crisis of meaning, they are called to reconstruct the meaning of their life to recover well-being, and this can be done by activating the meaning-making process (Park et al., 2012; Steger et al., 2006, 2009). The meaning-making process is based on the mutual relation between the perception of a life fulfilled with meaning (i.e. presence of meaning) and the urge to achieve a sense of meaningfulness (i.e. search for meaning). The presence of meaning is defined as "the extent to which people comprehend, make sense of, or see significance in their lives, accompanied by the degree to which they perceive themselves to have a purpose, mission, or over-arching aim in life" (Steger et all., 2009; pp. 43). The search for meaning concerns the extent to which people invest in achieving a sense of meaningfulness, by finding a renewed comprehension, significance, and purpose in their lives (Steger et al., 2006). The complexity of the meaning-making process emerges from the relationship between presence and search for meaning. This is evident when examining the association between meaning-making and well-being. For instance, Park et al., (2010) found a positive association between the search for meaning and well-being (greater life satisfaction, more happiness, and less depression) among adult individuals with a substantial presence of meaning in their life. Moreover, Steger, Oishi, and Kesebir (2011) found that presence of meaning was more strongly related to life satisfaction especially for students who were actively searching for meaning. These results underline that presence and search for meaning must be detected together as they are two sides of the same process, as stated by Steger himself: "investigations that focus exclusively on the presence or absence of meaning in life may be missing the full complexity of variation in meaning in life over the lifespan" (Steger et a., 2009, pp. 43).

Empirical studies found that levels of presence and search for meaning did not differ by gender in either adolescence or adult samples (Brassai et al., 2011; Negru-Subtirica et al., 2016; Steger et al. 2006). Instead, the activation of the meaning-making process configures differently according to the life-stage considered, where high levels of presence of meaning are found especially in middle age (45-64 years) and elderly people (over 65 years), and a high search of meaning is a hallmark characteristic of emerging and young adults (Brassai et al., 2011; Steger et al., 2009). The

consistent involvement in the search for meaning in this life stage mirrors youths' normative

explorations of life possibilities in the attempt to establish a solid identity and reach developmental

goals (Negru-Subtirica et al., 2016; Steger et al., 2009). However, a high engagement in the search for

meaning if not sustained by a certain amount of presence of meaning could be detrimental to youths

psychological functioning, as it might also sustain the ruminative exploration, which represents the

maladaptive exploration characterized by worry and indecisiveness (Negru-Subtirica et al., 2016;

Steger et al., 2011).

Meaning-making profiles of youths in transition

Several studies based on person-centered approaches (i.e. clustering techniques) underscored

that both the features (Galanaki & Sideridis, 2019; Lanctot & Poulin, 2018; Tagliabue et al., 2016)

and the timing (Sorgente et al., 2019; Vosylis, 2018) of the transition to adulthood hold diversity

inside, proving that there isn't a single developmental pattern generalizable to the entire population.

All these studies were capable of differentiating well-adapted configurations of emerging adults

(positive transitions cluster in Lanctot & Poulin, 2018 and Tagliabue et al., 2016; positive/self-

focused and settled in Vosylis, 2018; emerging adults and adult committers in Galanaki & Sideridis,

2019) from individuals showing signals of malaise and difficulty in progressing in their transition

(stalled individuals in Lanctot & Poulin, 2018; Tagliabue et al., 2016 and Vosylis, 2018; blocked in

transition in Galanaki & Sideridis, 2019).

At present, only two studies adopted a person-oriented technique to profile different meaning-

making paths among a sample of late adolescents (Krok, 2018) and emerging adults (Dezutter et al.,

2014). Both studies used the MLQ dimensions (i.e. presence and search for meaning; Steger et al.,

2006) as indicators of clusters. Three clusters were delineated by Krok (2018): the *search style* (high

search, low presence; 43%); the *presence style* (high presence, low search; 26%), and the *presence

and search style* (high presence and search; 31%). The search style had lower levels of satisfaction

with life and positive affect compared to the other two clusters, while individuals with high search and

high presence of meaning showed the highest psychological well-being (i.e. autonomy, environmental

mastery, self-acceptance, and purpose in life). Among the five clusters identified by Dezutter et al.

(2014) there is *high presence high search* (23%), *high presence low search* (15%), *low presence high*

search (18%), *undifferentiated* (35%), and *low presence low search* (9%). The generalizability of the solution was tested by a double cross-validation procedure, comparing the cluster solution across two halves of the sample (finding a replicable solution), age (finding a replicable solution across two groups: 18–25 and 26–30 years old), and gender (finding four of the five clusters to be replicable across males and females). Profiles with a high presence of meaning were the best adapted in terms of psychosocial functioning (e.g. life satisfaction, psychological well-being, self-esteem), where individuals with very low levels of presence showed maladaptive psychosocial functioning (e.g. depressive symptoms, anxiety, rule-breaking, social and physical aggression), especially when they completely lack to experience meaning (i.e. low-presence low-search cluster). These studies demonstrate considerable differences in the ways emerging adults activate the process of meaning-making, with some paths (i.e. those with the highest presence of meaning in life) which are strongly associated with well-being and positive functioning (i.e. similar to what has been highlighted by identity profiles).

However, these studies focused only on one specific contextual situation and considered only the outcomes, without investigating the correlates of the profile membership. For instance, one important uninvestigated question is about how the process of meaning-making configures when young people are living different transitional conditions, and different contextual situations, as it happens in the real life.

The meaning-making process in the context of the COVID-19 pandemic

As we previously discussed, when unexpected stressful or traumatic events occur the meaning-making process is activated. One of the most hurtful events that overwhelmed young people starting from March 2020 has been the COVID-19 pandemic. The pandemic is a quite rare example of a collective traumatic event that interfered with emerging adults' conquest of adulthood by challenging their everyday life and functioning (e.g. Achdut & Refaeli, 2020; Vuletić et al., 2021). Indeed, especially during the hardest times of restrictions (i.e. lock-down), emerging adults were unable to explore the world, to have contact with others (Dotson et al., 2022), to express their talents and passions. Moreover, the pandemic brought side effects such as the contraction of the labor market and a starting economic crisis, that significantly impacted young people's mental health (e.g. Reyes-

Portillo et al., 2022) and expectations for the future (e.g. Lanz et al., 2022). This situation threw

emerging adults off center, with some of them who regressed with respect to their life goals (e.g.

return to the family of origin, loss of job, inability to meet relatives), thus leading them to perceive a

loss in the sense of coherence and higher future anxiety (Dodd et al., 2021; Danioni et al., 2021).

Therefore, the occurrence of the pandemic could have directly impacted how emerging adults

activated the meaning-making process to cope with this situation. For instance, we could expect a

general loss in presence of meaning and a consequent engagement in the search for meaning to be

activated by all emerging adults in order to recover from the crisis experience.

However, to date no study has verified which meaning-making profiles existed at the time of

the covid pandemic, comparing them with the pre-COVID literature. Therefore, some questions are

still open, for instance, understanding whether the pandemic directly impacted the way young people

made sense of their life, or if the typologies of different ways young people activated the meaning-

making process before the pandemic were the same as those found in the same population during the

COVID-19 pandemic, when the contextual situation changed for the worse.

The present work intends to answer these questions by comparing the meaning-making

profiles activated by emerging adults before and during the COVID-19 pandemic.

The meaning-making process in the domains of love and work

Love and work are the life domains that emerging adults are most exploring and committing

to, to fulfill their need for meaning and find their path toward adulthood (Frankl, 1963; Mayseless &

Keren, 2014; Schnell, 2009; Steger et al., 2006). The transitional condition of imbalance experienced

in these two domains might drive emerging adults toward specific meaning-making configurations

(i.e. profiles), that, in the worst scenario, might degenerate into a crisis of meaning.

At present, the association between the transitional condition in the domains of love and work

and the process of meaning-making has been studied only within a variable-centered approach, by

investigating the association between the dimensions of presence and search for meaning, taken

separately, and some features of romantic relationships and work conditions. Specifically, Hadden and

Knee (2018) discovered that finding meaning in romantic relationships contributes to a sense of

general meaning and it is associated with the quality of the romantic relationship (satisfaction and

commitment) among a sample of youth couples. Van Tongeren et al. (2015) found that erosion of romantic relationship quality may disrupt one's sense of meaning and that forgiveness following a fight can restore the meaning in life over time. Regarding achievement and work commitments, nowadays, emerging adults are directed to find employment that fits their talents and passions, this is something that has a lot to do with identity and meaning in life besides financial rewarding (Arnett, 2007; Mayseless & Keren, 2014). Studies revealed that adolescents reporting purposeful career goals are those with higher meaning in life (Yeager & Bundick, 2009) and youths experiencing meaning in their careers satisfy their search for meaning by reporting a greater global meaning in life (Steger & Dik, 2009).

The above mentioned variable-oriented studies allowed to examine the strength and the direction of correlational associations between the presence and search for meaning, considered as independent processes, and other romantic/work-related variables. However, these studies didn't take into consideration the possibility that individuals could naturally cluster into different groups (i.e., meaning-making profiles) according to their combined levels of presence and search for meaning, as found in previous person-oriented studies (Dezutter et al., 2014; Krok, 2018). Therefore, the next step is to investigate if the transitional condition of balance vs imbalance in the spheres of love and work could explain emerging adults' belongingness to different meaning-making profiles. The adoption of a person-oriented approach would add novel understandings about how the meaning-making process is activated by youths living different transitional conditions in the domains of romantic relationships and work.

The present study

The present study addresses three aims: (a) to identify and describe different meaning-making profiles, providing empirical evidence of their generalizability across two independent samples of emerging and young adults living two different contextual conditions, a non-stressful contextual situation (pre-COVID-19), versus a high-stressful contextual situation (first lock-down during the COVID-19 pandemic); (b) to provide evidence for the criterion-related validity of the profiles by empirically support the association of high presence profiles with well-being outcome; (c) to investigate if socio-demographic features (e.g. gender, age) and the transitional condition (i.e. balance

or imbalance) in the domains of love (i.e. transition toward a satisfying romantic relationship) and work (i.e. transition toward a work career) can explain the belongingness to different meaning-making paths.

Related hypotheses are: (a) we expect to find similar meaning-making profiles as those found in previous studies (Dezutter, 2014; Krok, 2018). Concerning the generalizability of profiles across the two samples, we do not dispose of sufficient evidence to formulate hypotheses, as this is the first study comparing two different contextual situations, therefore we move on an exploratory level; (b) we expect profiles with the highest presence of meaning to be those with the highest level of well-being (e.g. Dezutter, 2014; Krok, 2018); (c) we do not expect gender to be a predictor of profile membership in continuity with previous works (e.g. Brassai et al., 2011; Negru-Subtirica et al., 2016), conversely we expect that as the age increases, so will the probability to be a member of the high presence profiles (e.g. Brassai et al., 2011; Steger et al., 2009). On a more exploratory level, we expect individuals who are about to shift in a new romantic or professional condition (e.g. singles, unemployed) to be more likely to show a high search meaning-making path, while individuals who are in a more balanced condition in both love and work (e.g. workers, married) should be paired with high presence meaning-making paths.

Materials and Methods

Participants and procedure

A total of 665 participants from two online surveys were included in the sample. The first sample (Sample A) is made of 201 Italian emerging and young adults (18-30 years; M=24.16; SD=3.14) whose data were collected before the COVID-19 pandemic (October 2019); the second sample (Sample B) is made of 464 Italian emerging and young adults (18-30 years; M=24.05; SD=3.05) who were experiencing the COVID-19 pandemic (first national lock-down in April 2020) during the data collection. Participants' socio-demographic and transitional characteristics were mostly comparable across the two samples (Table 1).

The recruitment was an intentional sampling procedure in both studies and, as inclusion criteria, an age between 18-30 was required. Two additional inclusion criteria were added in the second study (Sample B) due to the specificity of the contextual situation (COVID-19 pandemic): (a)

participants needed to live in Lombardia (the Italian region with the highest contagion rate during the data collection), and (b) not to work as a healthcare professional in hospitals (the kind of job was considered as a very different context than the ones experienced by the other young adults in that period).

In both studies, participants were recruited via personal invitation (e-mail and WhatsApp) and Facebook announcements. They were informed about the study's aims, procedure and study design, data protection, and participant's rights. Only individuals who agreed to participate and signed the informed consent received the link to the online survey implemented in Qualtrics. No reward for participation was provided. Both studies received ethical approval from the institutional Ethical Committee of the author's university (Ethical approval Study A: 16-19; Ethical approval Study B: 32-20).

Measures

The same instruments were administered in both samples.

Meaning-making

We administered the Meaning in Life Questionnaire (MLQ; Steger et al., 2006; Italian validation by Negri et al., 2020), a 10 item self-report measure assessing the *presence* of meaning in life (e.g. I understand my life's meaning) and the *search* for meaning in life (e.g. I am always looking to find my life's purpose). Participants answered on a Likert scale from 1 (Strongly disagree) to 7 (Strongly agree). A partial scalar invariance and partial strict invariance was found across the two samples (Table S2). Intercepts of MLQP9R (My life has no clear purpose_reverse score) and MLQP1 (I understand my life's meaning) were higher for Sample B (5.46 – 4.81) than Sample A (4.49 – 4.35), and residuals of MLQS7 (I am always searching for something that makes my life feel significant) and MLQS8 (I am seeking a purpose or mission for my life) were higher for Sample B (1.37 – 1.41) than Sample A (.70 – .63). Therefore, composite reliability has been conducted separately for the two samples. Internal consistency (ω > .60; Bagozzi & Youjae Yi, 1988) was good (presence of meaning: Sample A ω =.886, Sample B ω =.856; search for meaning: Sample A ω =.907, Sample B ω =.879). The factor's scores of both presence and search for meaning were exported with the SAVE FACTOR

command to be used in subsequent models (Morin et al., 2016) as they are free from measurement error (Zumbo, 2005).

Psychological well-being

The Brief Inventory of Thriving (BIT; Duan et al., 2016; Italian validation by Sorgente et al., 2019) was administered. The measure is made of 10 items assessing self-reporting comprehensive well-being. Examples of items are "I feel good most of the time", "I am optimistic about my future", "My life has a clear sense of purpose". Participants answered on a Likert scale from 1 (Strongly disagree) to 5 (Strongly agree). We excluded one BIT item assessing purpose in life (e.g. My life has a clear sense of purpose) as it overlaps with one item of the MLQ presence subscale (e.g. My life has no clear purpose). We found a partial scalar and partial strict invariance across the two samples (Table S3). Intercepts of BIT1 (There are people who appreciate me as a person), BIT2 (I feel a sense of belonging in my community), BIT4 (I am achieving most of my goals), and BIT6 (What I do in life is valuable and worthwhile) were higher for Sample A (4.04, 2.97, 3.54, 4.11) than Sample B (3.88, 2.69, 3.33, 3.88). The residual of BIT5 (I can succeed if I put my mind to it) was higher for Sample B (.56) than Sample A (.37). Therefore, composite reliability has been conducted separately for the two samples. The internal consistency was good (range Sample A ω =.827, Sample B ω =.830). The factor's scores of the BIT were exported with the SAVE FACTOR command to be used in subsequent models.

Transitional condition in the domains of love and work

We categorized participants according to their transitional condition (balance vs imbalance) in the domains of love and work. For the domain of love, participants answered two questions. The first asked to indicate if they were involved in a romantic relationship (yes-no). The second tested the engagement in the romantic relationship by asking "How are you living your romantic relationship?"; participants answered on a 4 point Likert scale with 1 (I live the relation day by day, because I think it won't last long), 2 (I take it seriously, but I don't know if it will last), 3 (I think this relationship is decisive for me, it will last a long time) and 4 (It's absolutely the right one for me, it will last forever). Starting from these two questions we created the *transitional condition in love* variable, made of two categories, *balanced* and *imbalanced* condition.

One of the most important transitional goals for emerging adults is to establish a solid romantic relationship (Lanz & Tagliabue, 2007; Mayseless & Keren, 2014). Several studies found that emerging adults engaged in a romantic relationship show higher identity commitment, autonomy, independence, interdependence, and life satisfaction, compared to individuals not engaged in a romantic relationship, which are more immature and engaged in an intense identity exploration (e.g. Galanaki & Sideridis, 2018; Mayseless & Keren, 2014; Zupančič et al., 2014). For example, Galanaki & Sideridis (2018) conducted a person-oriented analysis, finding that emerging adults who were not engaged in a romantic relationship were more likely to show the features of *immature explorers* or *blocked in transition,* compared to those engaged in a steady romantic relationship who were more likely to be *emerging adults* and *adult committers*.

In line with this framework, we considered singles as living an *imbalanced* condition in the domain of love. Moreover, we distinguished coupled individuals between people who were satisfied (*balanced* condition) and people who were not satisfied with their romantic relationship (*imbalanced* condition). Therefore, the *imbalanced* category included individuals who were not engaged in a romantic relationship and individuals with a low engagement in the romantic relationship (answering 1 or 2 to the engagement question), while the *balanced* category included people who were highly engaged in their romantic relationship (answering 3 or 4 to the engagement question).

For the domain of work, we considered two socio-demographic variables assessing the *professional status* (student, worker, neither student nor worker) and the *educational degree* (only for students), distinguishing between Middle school, High school diploma, Bachelor degree, Master degree, and Master/post-graduate education. The *transitional condition in work* was made of two categories, the *imbalanced* category included nor students nor workers (e.g. trainee, unemployed) and students enrolled in High school (those who achieved a middle school diploma) or Master degree (those who achieved a Bachelor degree); the *balanced* category included workers and students enrolled in Bachelor degree (those who achieved a high school diploma). We included Bachelor students in the balanced group due to Italian youths' tendency to complete the educational cycle with a Master degree directly after achieving a Bachelor (Istat, 2020), thus postponing the decision about the career future in the last two years of education.

Data analysis

Preliminary analysis

We evaluated the missingness mechanism by Little's MCAR test. Missing data were handled in Mplus via the full information maximum likelihood (FIML) method. We checked for multivariate outliers using Mahalanobis distance, excluding scores exceeding the critical values based on chi-square distribution (p<.001) (Tabachnick & Fidell, 2013).

Multi-Group Latent Profile Analysis

Clustering techniques, among which Latent Profile Analysis, are used when meaningful subgroups characterized by different configurations of a set of indicators are expected in the population (Kam et al., 2016; Morin & Marsh, 2016), as they allow to assess the extent to which latent profiles can be generalizable across different samples (e.g. Hirschi & Valero, 2015), time-points (named Latent Transition Analysis, e.g. Kam et al., 2016; Sorgente et al., 2019) or cultures (e.g. Fan et al., 2019). In that way, we can address one important under-considered issue in the person-oriented literature which regards the validation of profiles (Spurk et al., 2020).

We conducted a quite recently introduced approach named multi-group Latent Profile Analysis (Morin et al., 2016). This technique allows to compare the latent profiles identified across different groups by testing six levels of similarity: the first four steps compare the latent profile solution across different groups of individuals by verifying the similarity the number of profiles (configural similarity), the within profile means (structural similarity) and variability (distributional similarity), and the size of the profiles (dispersion similarity); the last two steps compare the effect of covariates, both outcomes (explanatory similarity) and predictors (predictive similarity), on the profile's membership.

In that way, we tested different kinds of profile validation: the first four steps (from configural to dispersion similarity) allowed us to verify the generalizability of the latent profiles across two samples of emerging and young adults with similar socio-demographic characteristics (e.g. age), but living two different contextual conditions (i.e. pre-covid vs during-covid). With the exploratory similarity we collected proofs for criterion-validity of the profiles by testing mean differences in the level of subjective well-being across the profiles, after verifying the invariance of

the outcomes across the two samples. Finally, we verified that the hypothesized predictors (socio-demographic variables and transitional condition in love and work) were associated with specific meaning-making patterns in the same way across the two samples by testing the predictive similarity. A detailed description of the multi-group LPA procedure we followed can be found at

https://osf.io/nc4zp/?view_only=fb60e28da21c4e0ea38e44aea089d772.

Results

Preliminary analyses

The missingness mechanism on the total sample (N=665) revealed to be non-random [Little test: $\chi 2$ (208) = 268.633; p=.003]. Five subjects were deleted both from sample A and sample B as they were multivariate outliers. The final samples are made of a total of 655 subjects (196 subjects from sample A and 459 subjects from sample B). All the items approximate well the normal distribution (skewness and/or kurtosis lower than |1|; Muthén & Kaplan, 1985), therefore we used ML estimator. Subsequent analyses were conducted in Mplus 8.4 software (STBC80040220).

Multi-Group Latent Profile Analysis

Identification of the meaning-making profiles

In both samples the three-profile model was the best solution, supported by most of Information Criteria (AIC, BIC, CAIC, AWE), by the likelihood ratio-based test (LMR-LRT and BLRT), the Bayes Factor, and the Cmp (k) (Table 2). The level of Entropy was optimal in Sample B (.80) and approached the required cut-off in Sample A (.69), thus indicating a satisfying general quality of classification. Thus, the *configural similarity* was supported.

Before moving to the second step (structural similarity), we merged the two samples in a general multigroup LPA model which served as configural model to test subsequent levels of invariance (Mplus syntaxes are available at

https://osf.io/nc4zp/?view_only=fb60e28da21c4e0ea38e44aea089d772). We tested the *structural similarity* by constraining the profile means to be equal across the two samples, but freely to vary within each sample's profiles. Compared with the configural model, the constrained model showed lower indices, thus indicating that constraining the means across samples did not worsen the

model fit, in support of the structural similarity between the two samples. Similarly, *dispersion similarity* was found when imposing the within-profile variability to be equal across samples. In the last step (*distributional similarity*) we verified if profile proportions were the same across the two samples by constraining the relative size of the profiles to be equal across the two samples. A reduction in all the fit indices supported the *distributional similarity*. These results showed that, despite the different sample size, the meaning-making profiles identified in the two samples were similar in both the structure, size, and meaning of the three meaning-making paths, thus providing evidence of the profiles' generalizability across two different contextual conditions (i.e. pre-covid vs during-covid) lived by emerging adults at the time of data collection.

The level of entropy was good for all the models tested (.86). Therefore, we decided to retain the distributional similarity model for the interpretation of latent profiles. Figure 1 illustrates the configuration of individuals in three distinct profiles. The *fulfilled* young and emerging adults (N=88, 13.4%) are those who experienced the highest level of meaning in life (i.e., 0.8 standard deviations above the sample mean), accompanied with a very low search (i.e., 3.8 standard deviations below the sample mean). The *in-between* group (N=273, 41.7%) describes people with an average level of presence of meaning (i.e., scores included in the range of ±0.5 standard deviations from the sample mean) and a low level of search for meaning (i.e., 0.9 standard deviations below the sample mean). Finally, the *searchers* (N=294, 44.9%) are the ones who are mostly engaged in the process of searching for meaning (i.e., 1.9 standard deviations above the sample mean), even if they possess an average level of presence of meaning.

Association of the profiles with psychological well-being

To evaluate if meaning-making latent profiles displayed statistically significant mean-level differences in their levels of well-being, we included the BIT factor score as a distal outcome of the profile membership. The baseline model was the distributional similarity model with fixed SVALUES (to prevent an involuntary change in profile membership due to the inclusion of auxiliary variables in the model; Nylund-Gibson et al., 2019). We test the *explanatory similarity* across the two samples by comparing a model in which the within-profile level of well-being was freely estimated across

samples, with a constrained model. Explanatory similarity was supported by a general improvement of fit indices (Table 2).

Pairwise comparisons indicated that *fulfilled* individuals were those with the highest perception of well-being compared to the *in-between* and the *searchers* group (Table 3).

Association of the profiles with gender, age and transitional condition in the domains of love and work

For the last aim, we included socio-demographic variables (gender, age), and the transitional condition (in love and work) as predictors of the profile's membership. The baseline model was the distributional similarity model with fixed SVALUES (as for the exploratory similarity model). The *predictive similarity* was tested by comparing a free model with a constrained model in which the predictors were set to equality across the two samples. A general improvement of fit indices for the constrained model confirmed the predictive similarity (Table 2). Therefore, we interpreted the multinomial logistic regression derived from this model (Table 4).

As expected, gender was not a predictor of profile membership. Conversely, age predicted profile membership in the expected direction. Specifically, the odds ratio's probability of being in the *fulfilled* instead of the *searchers* (Odds ratio=1.21) or the *in-between* group (Odds ratio=1.14), were respectively 55% and 53% higher for each increase of one year in age. Thus, with increasing age is more likely to be fulfilled with meaning, thus confirming our hypothesis.

Moving toward the last aim, we examined the transitional condition in both the love domain, where the 49.3% (N=323) of participants were in an imbalanced condition, and in the work domain, with the 27.6% (N=181) of individuals in an imbalanced condition.

The transitional condition in both domains was associated with specific meaning-making paths. When considering the domain of love, we found that the odds ratio probability of being in the *searchers* (Odds ratio=3.37) or the *in-between* (Odds ratio=2.26) group instead of the *fulfilled* were respectively 77% and 69% higher for individuals in an *imbalanced* condition (i.e. individuals who were single or little engaged in a romantic relationship) compared to the *balanced* one (i.e. individuals highly engaged in a romantic relationship). For the work domain, *imbalanced* individuals (i.e. nor students nor workers, high school students, master students) showed an odd's ratio probability 68%

higher (Odds ratio=2.12) of being *searchers* instead of *fulfilled*, compared to the *balanced* ones (i.e. workers, bachelor students). No predictor was able to explain the membership between the *searcher* and *in-between* profiles.

Discussion

The present work was conducted to delineate different profiles of meaning-making, providing evidence of their generalizability across two contextual conditions and of their criterion-validity, and to investigate the role of socio-demographics (gender, age) and the transitional condition (i.e. balance vs imbalance) in the domains of love and work on the activation of the meaning-making process. Hypotheses were confirmed: the three identified meaning-making profiles were similar to the profiles found in previous works on the same population target, the criterion-related validity of the profiles was empirically supported, and the profiles were different for age and not for gender.

By using the same indicators, i.e. presence and search for meaning from the MLQ measure, of previous person-oriented research (Dezutter et al., 2014; Krok, 2018) to identify meaning-making profiles, we were able to draw a direct comparison of results and add further evidence to the existence of different meaning-making profiles among youths. Specifically, the *searchers* profile (high search, average presence) we identified is akin to the *search style* cluster (Krok, 2018) and the low *presence high search* cluster (Dezutter et al., 2014); the *in-between* profile (low search, average presence) can be associated with both the *undifferentiated* and the *low presence low search* clusters in Dezutter et al. (2014); and the *fulfilled* profile (high presence, low search) can be paired with the *presence style* (Krok, 2018) and the *high presence low search* cluster in Dezutter et al. (2014).

The *fulfilled* profile was the smallest, and mostly represented by older participants, thus indicating that a high presence of meaning is not a peculiarity of young emerging adults (Steger et al., 2009). Conversely, the largest profile was the *searchers*, underscoring that a substantive activation of search for meaning is normative for emerging adults (Brassai et al., 2011; Steger et al., 2009). This insight is particularly salient, as the variable-centered literature on meaning-making has always been especially focused on the presence or absence of meaning in life, even when studying the youth population. However, these findings raise the need to investigate to what extent the meaning-making

process is associated with the transition to adulthood taking into consideration both presence and search for meaning, in line with Steger's et al. (2009) suggestion.

This study has the merit of reasoning on the validity of profiles, an under-considered issue in person-oriented literature (Morin et al., 2016; Spurk et al., 2020), by providing evidence for two kinds of validity, the generalizability (i.e. by testing the measurement invariance of the profiles across different known groups) and the criterion-related validity of the profiles (i.e. by comparing a theoretically relevant outcome (i.e. well-being) across the identified profiles). The profiles were generalizable across two different contextual situations, one of which, i.e. first lock-down during the COVID-19 pandemic, represents an unexpected high stressful and traumatic contextual situation. Indeed, the second sample was recruited in April 2020 in Lombardia, the Italian region with the worst COVID-19 scenario at that time, accounting for 37% of COVID-19 cases in Italy, and with a fatality rate six times higher than the rest of the country (Odone et al., 2020). Moreover, young adults at that time were experiencing the first lock-down, that was raised in Lombardia's cities between the end of February 2020 and the beginning of March, thus suffering from restrictions to their social (e.g. prohibition to leave home), educational (e.g. distance learning), and work-life (e.g. contraction of the labor market). The full invariance of meaning-making profiles that we found across the two samples indicates that the three identified meaning-making profiles had the same proportion of subjects in the two samples, the same mean level of indicators (i.e., presence and search for meaning), and the same indicators variability within each profile. Therefore, the highly stressful and traumatic experience of the COVID-19 pandemic didn't directly impact the meaning-making process activated by youths. This suggests that the meaning-making configurations are not directly influenced by objective contextual factors, instead, it might be the subjective perception of life events, as experienced by each emerging adult, that has an impact on the meaning-making process activation. Indeed, as stated by Park et al. (2012), the meaning-making process activates when individuals perceive a discrepancy between the traumatic/stressful experience and one's internal system of values and lifegoals.

However, the side effects of the pandemic were revealed in the months that followed, especially concerning a contraction of the labor market, and an extended period of distance learning at all educational levels (Achdut & Refaeli, 2020). These indirect consequences might have impacted

youths' ability to pursue their life goals and progress toward their transition to adulthood, thus generating additional distress and loss of confidence in the future. The investigation of the impact of specific indirect effects of the pandemic on young adults' life was beyond the scope of the present work, however, it should be considered in future studies. Moreover, a longitudinal examination of the meaning-making profiles across different pandemic conditions would allow a better understanding of how youths activated the meaning-making process to cope with both direct and indirect effects of the pandemic.

Another important contribution of this study is that it highlights the direct association between meaning-making and role transitions. Controlling for age, youths in an *imbalanced* condition in both love and work, were more likely to activate a high search meaning-making path (i.e. searchers) instead of a high presence meaning-making path (i.e. fulfilled). Additionally, the condition of *balance* in love was able to move individuals from the in-between to the fulfilled path. The imbalanced condition that anticipates a role transition is a very delicate time in which youths commit most of their energies to conquer a new developmental task and engage in an intense search for meaning. If they manage to reach the desired goal, they can enter a balanced condition and perceive a boost in presence of meaning, thus relaxing their need to search for meaning. If they are not able to cope with transitional and contextual challenges, they could get stuck in the imbalanced condition and fall into a crisis of meaning (Park, 2010; Schnell, 2010). The occurrence of stressful or traumatic unexpected events can exacerbate the perception of crisis and generate further malaise. In those situations, a persistent search for meaning could easily turn into rumination, which is often detrimental to youths' psychological functioning (Negru-Subtirica et al., 2016; Steger et al., 2011).

Limitations

The first limitation of this study is that only partial scalar invariance across the two samples for both the MLQ and BIT was found. However, as only two parameters (items 1 and 9 intercepts) were non-invariant in the MLQ (both overestimated in sample B), they shouldn't have significantly impacted the profile estimation. More problematic was the BIT, with four non-invariant items, although the contextual situation could have affected the measurement of well-being. Future studies could support the criterion-validity using other well-being measures.

On the same line, one drawback concerns the assessment of well-being, which in the present study was limited to the administration of the Brief Inventory of Thriving. As suggested by several works, the concept of well-being and thriving is hard to adequately measure in its broadness (e.g. VanderWeele et al., 2020). Many of the comprehensive multidimensional measures of well-being showed major measurement drawbacks, among which the inability to disentangle different facets of well-being, which are often overlapped (Giuntoli & Vidotto, 2021; Sorgente et al., 2021; Springer & Hauser, 2006). A recent study (Sorgente et al., 2021) examined the psychometric properties of the Comprehensive Inventory of Thriving, a multidimensional measure of thriving, and confirmed the same measurement issues, finding a substantial overlapping among its dimensions. The authors suggested the use of its brief version, the Brief Inventory of Thriving, when researchers are interested in a general measure of thriving, as it possesses a reliable structure across several countries and contexts. However, future studies should study the association of meaning-making profiles with different outcomes related to well-being, i.e., life satisfaction, happiness, future perspectives, and mental health, i.e., depression, anxiety.

Finally, a drawback regards the measures we used to assess the transitional condition of balance and imbalance. First, according to the traditional framework, we considered single individuals as living an imbalanced condition in the domain of love, as they are lacking the adulthood criteria of being engaged in a solid romantic relationship. However, there could be single individuals who perceive their life as fulfilled and balanced and choose not to engage in a romantic relationship as a stable project for their life. Second, the transitional condition measures were built post-hoc starting from socio-demographic objective indicators (except for romantic engagement). Although role transitions have always been measured through objective indicators, researchers pointed out that the subjective perception of transitional markers deviates from objective indicators quite often (Shanahan et al., 2008). To overcome these limits, further studies should develop a subjective measure of the transitional condition (i.e. balance and imbalance).

Future perspectives

By this work we provided further evidence of the existence of different meaning-making paths among young people belonging to Western countries (Italy in the present study; USA in

Dezutter et al., 2014; Poland in Krok, 2018), however more person-oriented cross-cultural studies are needed to provide further evidence of generalizability of latent profiles across different nations and cultures. Furthermore, further studies should focus on the developmental process of meaning-making that unfolds over time, by investigating if young people shift from one meaning-making path to another during the transition to adulthood, and the predictive role of individual factors on profile's pattern of change. A longitudinal person-oriented technique such as the Latent Transition Analysis (e.g. Sorgente et al., 2019) would serve well for this purpose. Besides the description of these profiles and the possible changes during the transition to adulthood, predictors of profiles should be investigated both cross-sectionally and longitudinally. For example, further studies should investigate possible predictors and psychosocial correlates of the belongingness to different meaning-making profiles, such as identity, agency, personality, intelligence, mental health, religiosity. Finally, replication studies on sub-populations of vulnerable youths (e.g. NEETs, homeless; Smith & Dowse, 2019) would clarify how the meaning-making process is activated by young people living in uncomfortable conditions. Increasing the theoretical understanding will serve as a base to structure meaning-based interventions, which may effectively promote a healthy way to grow as result of normative or non-normative life events.

In conclusion, the present study extends the previous findings on meaning-making and the transition to adulthood on several fronts. This is one of the first studies showing the importance to adopt a person-centered approach in the study of meaning-making during the transition to adulthood, also providing evidence of the validity of profiles, underlining the importance to consider the search for meaning as a normative process during that transition. Moreover, it is the first study investigating some possible correlates of those profiles, underlining the importance to consider whether the emerging or young adult is living a balanced or imbalanced condition during the long transition to adulthood. As practitioners, knowing how to guide young people in their search for meaning, especially during moments of imbalance, can prevent the onset of crises of meaning that can generate psychological malaise.

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Table 1

Descriptive Statistics and Comparison between the Two Samples

Socio-demographic variable	Descriptive statistics		Cross-sample comparison	
	Sample A (N=201)	Sample B (N=464)	Statistical values t/Chi^2 (df)	*p* value
Age (Mean, SD)	24.2 (3.14)	24.3 (3.05)	-0.73 (663)	.398
Males (%, N)	30.8% (62)	28.3% (131)	0.44 (1)	.506
Involved in a romantic relationship (%, N)	65.2% (131)	63.6% (295)	0.15 (1)	.694
Having children (%, N)	2% (4)	2.4% (11)	0.09 (1)	.768
Cohabiting with parents (%, N)	64.7% (130)	74.1% (340)*	6.02 (1)	.014
Occupation (%, N)				
Student	49.3% (99)	45.5% (211)		
Worker	45.3% (91)	43.8% (203)	4.80 (2)	.091
Nor student nor worker	5.5% (11)	10.8% (50)		
Education (%, N)				
Middle school diploma	2% (4)	1.7% (8)		
High school diploma	51.2% (103)	43.1% (199)		
Bachelor degree	21.4% (43)	25.1% (116)	4.97 (4)	.290
Master degree	23.9% (48)	26.8% (124)		
Post graduate education	1.5% (3)	3.2% (15)		

Note. t: statistical value of Student's t- test; χ^2: statistical value of Pearson chi-square.

*of which the 9.4% (N=32) moved back living with parents due to the COVID-19 pandemic.

Table 2

Multi-Group Latent Profile Analysis Model Comparison

	k-profile	LL	df	AIC	BIC	CAIC	AWE	Adj-LRM p-value	BLRT p-value	BF	Cmp (K)	Entropy	Profiles distributions (N=655)
Class enumeration													
Sample A (N=196)	2	-506.01	7	1026.02	1048.97	1019.02	1033.02	.01	<.001	0.09	0.36	.64	42,154
	3	-497.53	10	1015.07	1047.85	1005.07	1025.07	.01	<.001	261.78	0.63	.69	23, 38, 135
	4	-494.83	13	1015.65	1058.27	1002.65	1028.65	.44	1.00		0.00	.72	23, 24, 45, 105
Sample B (N=459)	2	-1223.65	7	2461.30	2490.20	2454.30	2468.30	<.001	<.001	0.00	0.00	.67	153, 306
	3	-1202.57	10	2425.14	2466.43	2415.14	2435.14	<.001	<.001	349.32	1.00	.80	65, 180, 214
	4	-1199.88	13	2424.47	2478.14	2412.77	2438.77	.10	.29		0.00	.84	4, 61, 180, 214
Measurement similarity													
Configural	3	-2099.80	21	4282.38	4403.71	4220.59	4262.59					.86	
Structural	3	-2105.77	15	4241.55	4308.82	4226.55	4256.55					.86	
Dispersion	3	-2106.40	13	4238.81	4297.11	4225.81	4251.81					.86	
Distributional	3	-2108.05	11	4238.09	4287.42	4227.09	4249.09					.86	
Explanatory similarity (psychological well-being)													
Free	3	-2928.75	10	5877.51	5922.36	5867.51	5887.51					.86	
Constraint	3	-2932.57	7	5879.14	5910.53	5872.13	5886.13					.86	
Predictive similarity (gender, age, transitional condition in love and work)													
Free	3	-2073.93	27	4201.85	4322.94	4174.85	4228.85					.86	
Constraint	3	-2081.01	19	4200.02	4285.23	4181.02	4219.02					.86	

Note. LL= model log likelihood; df= degrees of freedom; AIC =Akaike Information Criterion; CAIC=Consistent AIC; BIC=Bayesian Information Criterion; AWE=

Approximate Weight of Evidence Criterion; Adj-LMR= Adjusted Lo, Mendell, and Rubin likelihood ratio test; BLRT=Bootstrap Likelihood Ratio Test; BF=Bayes

Factor; Cmp (k)= Approximate correct model probability.

Table 3

Pairwise Comparison in the Mean Level of Psychological Well-Being across Meaning-Making Profiles

Profile	*P1:Fulfilled*	*P2:In-between*	*P3:Searchers*	
	Intercept (S.E.)	Intercept (S.E.)	Intercept (S.E.)	Significant pairwise comparisons
BIT factor score	.530 (.096)	.005 (.069)	-.164 (.067)	P1>P2**; P1>P3**

Note. SE= standardized estimates of intercepts.

**p<.001

Table 4

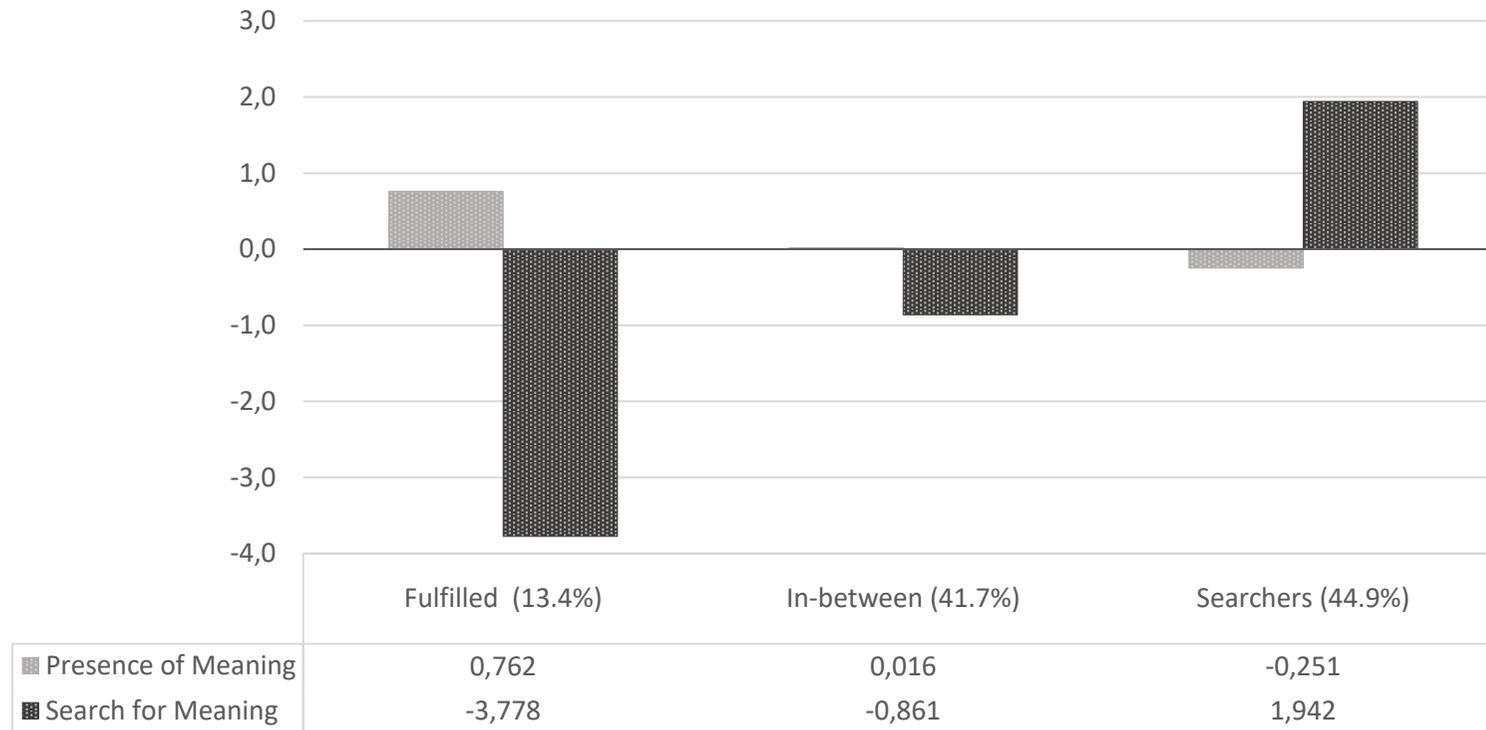*Multinomial Logistic Regression Evaluating the Effects of Predictors on Latent Profile Membership*

Reference group	Predictor	Coefficient (SE)	*p-value*	OR	CI 95%	OR's probability
Searchers	Gender					
	Fulfilled	-0.506 (.294)	.085			
	In-between	-0.245 (.228)	.281			
	Age					
	Fulfilled	0.190 (.044)	<.001	1.21	1.12-1.30	55%
	In-between	0.057 (.034)	.095			
	Imbalanced condition in love					
	Fulfilled	1.215 (.305)	<.001	3.37	2.04-5.57	77%
	In-between	0.401 (.207)	.053			
	Imbalanced condition in work					
	Fulfilled	0.750 (.358)	.036	2.12	1.17-3.81	68%
	In-between	0.113 (.220)	.607			
In-between	Gender					
	Fulfilled	-0.261 (301)	.387			
	Age					
	Fulfilled	0.133 (.045)	.003	1.14	1.06-1.23	53%
	Imbalanced condition in love					
	Fulfilled	0.814 (.320)	.011	2.26	1.33-3.82	69%
	Imbalanced condition in work					
	Fulfilled	0.636 (.373)	.088			

Note: SE= standard error of the coefficient; OR= odds ratio; The OR's probability indicates the increase (+) or the decrease

(-) of the likelihood of membership into each profile relative to the reference group.

Figure 1

Characteristics of the Meaning-Making Profiles in terms of Presence and Search of Meaning In Life

	Fulfilled (13.4%)	In-between (41.7%)	Searchers (44.9%)
Presence of Meaning	0,762	0,016	-0,251
Search for Meaning	-3,778	-0,861	1,942

Note. Presence and search for meaning are expressed as standardized factor's scores, with a mean of 0 and a standard deviation of 1 to help in the interpretation of this histogram.