

Navigating the Pandemic: How Thinking Strategies Shape Well-Being. The Relationship Between Subjective Well-being and Adaptive-convergent and Exaptive-divergent Thinking During the Coronavirus Pandemic

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ABSTRACT

In our paper, we investigate whether there is a relationship between well-being and adaptive-convergent and exaptive-divergent thinking. In other words, the central question of our paper is to what extent different coping strategies, borrowed from evolutionary biology, influence the level of subjective well-being during the coronavirus pandemic. For the empirical examination of our question, we collected data from 998 individuals, representing the Hungarian population over 18 years of age. To examine the relationships between the factors under investigation, we built four regression models. Our results show that well-being is enhanced by both adaptive-convergent (logical, systematic) and exaptive-divergent (creative, innovative) thinking. Remarkably, these cognitive strategies had a stronger effect on well-being in terms of standardized beta coefficients than age, sex, and even relationship status, highlighting their crucial role in promoting subjective well-being. This relationship is valid even when the effects of the coronavirus epidemic on well-being are excluded, and divergent thinking also helps to make people less affected by the pandemic. These findings underscore the importance of

cultivating cognitive flexibility and the capacity to engage in both systematic problem-solving and creative exploration for maintaining and enhancing well-being, particularly in the face of major societal challenges.

KEYWORDS:

Subjective well-being adaptation, exaptation, convergent thinking, divergent thinking, coronavirus pandemic

Article history:

Received: January 4, 2024

Received in revised form: January 12, 2025

Accepted: January 20, 2025

ISSN 2354-0036

DOI: 10.2478/ctra-2025-0004

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INTRODUCTION

In recent decades, there has been a paradigm shift in how we measure societal progress and individual success. There is an increasing need to focus on the quality of people's lives and well-being, rather than merely on economic indicators to measure the development of societies and the success of individuals (cf. Stiglitz, Sen, & Fitoussi, 2009; Anand, 2016; Miskolczi 2022). The dictionary definition of well-being is "the state of being comfortable, healthy, or happy" (Oxford, 2016). The concepts most commonly associated with well-being include happiness, satisfaction, health, physical security, financial security, livability, and self-fulfillment (cf. Anand, 2016; Pinto et al., 2017). These concepts suggest that well-being is embodied in both objective and subjective factors (Sen, 1987). Consistently with this, works defining well-being typically separate its objective and subjective dimensions. The objective approach of well-being is based on the premise that there are common needs in every human society. In line with this, the objective dimensions of well-being are typically conceptualized through indicators that can be grasped at different societal levels. This includes, for example, the financial means of individuals. In this case, the point is not—or not merely—the macroeconomic performance of the countries, but the appropriate standard of living of individuals and families (i.e., the wage level of the population allows them to buy goods and services that are important to them; see Goldsmith, 1996). Similarly, an objective indicator of well-being includes the degree of inequality and social mobility (both intra- and intergenerational), which shows the extent to which there are differences between different strata and the extent to which these strata can be bridged by individual efforts (Corak, 2013; Chan, 2017). Corruption and trust in institutions can also be considered as objective indicators of well-being, as these indicators implicitly show how people feel that the institutional environment serves their interests, needs, and their security (Kroll, 2008; Glatz & Eder, 2020). In addition, it is important to mention public safety, the number of healthy life years, which are also an objective indicator of well-being.

In contrast to the objective approach of well-being, approaches that emphasize subjective factors are based on the premise that well-being is the result of individual desires and values. This approach recognizes that people's beliefs and desires can differ significantly. For example, there are people who enjoy a trip in the forest, but there are also people who feel much better about buying a new shoe (cf. McGregor & Goldsmith, 1998). Therefore, the concept of well-being is most often related in the current literature to the concepts of happiness, satisfaction, and self-realization, accepting the subjective nature of the phenomenon (cf. Welzel & Inglehart, 2010; Inglehart, 2011; Ruzevicius, 2014).

In this context, well-being thus derives, on the one hand, from an individual's own subjective judgment of life, and, on the other hand, from the extent to which they feel able to achieve the things they wish to accomplish through their choice of values (Kollár J. & Kollár D., 2022). In this context, well-being is therefore a sense of subjective happiness and satisfaction, and the means by which people can achieve their desired way of being. This perspective aligns with Welzel and Inglehart's (2010) evolutionary approach to well-being, which posits that various environmental and

structural factors shape what people consider valuable in a given context. In essence, individuals place the highest value on things that provide them with the most material or immaterial utility. Values, in turn, reflect optimization strategies that involve weighing different lifestyles, goals, and means.¹ When people successfully enact these strategies and attain their defined goals, they experience a sense of satisfaction (Welzel & Inglehart, 2010; Kollár D., 2020)¹.

Building upon this foundation, we propose that the cognitive processes underlying these optimization strategies play a crucial role in shaping subjective well-being, particularly in the face of societal challenges. While extensive research has been conducted on the various factors contributing to well-being, there remains a significant gap in our understanding of how different thinking strategies enable individuals to maintain and enhance their well-being in the pursuit of their valued goals. The field of creativity research has long recognized the importance of cognitive processes in fostering innovation, adaptability, and personal growth (Guilford, 1967; Runco, 2004). However, the potential links between creative cognition and well-being optimization have been largely unexplored. By integrating insights from creativity research with evolutionary and well-being perspectives, our study aims to bridge this gap and shed light on the cognitive underpinnings of human flourishing.

To address this gap, we draw upon the concepts of adaptation and exaptation from evolutionary biology (Gould & Vrba, 1982) to develop a novel theoretical framework for understanding the cognitive underpinnings of well-being optimization. Adaptation involves refining existing solutions to better solve a given problem, while exaptation entails repurposing existing features or technologies to address new challenges or achieve new functional goals (Winters, 2019). We argue that these strategies closely align with the well-established concepts of convergent and divergent thinking in cognitive psychology, respectively. Convergent thinking, characterized by a systematic and logical approach to problem-solving, enables individuals to efficiently optimize their resources and actions toward achieving predefined goals in stable contexts. In contrast, divergent thinking, marked by flexibility, originality, and the ability to generate multiple ideas, allows individuals to creatively repurpose existing skills and resources to adapt to changing circumstances and discover new opportunities for enhancing well-being (Cropley, 2006; Runco, 2014). By integrating these evolutionary and cognitive perspectives, our framework offers a unique lens for understanding how individuals navigate the complex interplay of environmental factors, personal values, and societal challenges in their pursuit of well-being. In line with this, the present study aims to empirically investigate the relationship between well-being and adaptive-convergent and exaptive-divergent

¹ This is, of course, an ideal-typical model. In reality, there can be inconsistencies between values (as covert cognitions) and actual behaviors (as overt actions). Research has shown that a “value-action gap” or an inconsistency between attitudes and behaviors often exists (Blake, 1999; Kennedy et al., 2009). This means that while values guide and motivate action, they do not determine behavior in a fixed way. Contextual barriers, conflicting values, and other psychological factors can lead to discrepancies between stated values and actual choices. Welzel and Inglehart (2010) acknowledge this, noting that the strength of attitude-behavior link depends on the extent to which people experience agency and have the resources to act on their values. Despite these caveats, values remain important predictors and explanations of behavior patterns across contexts. The value-behavior link tends to be stronger when values are central to the self and when situational pressures are weak (Schwartz, 2012).

thinking, and to explore the potential protective role of these cognitive strategies in the face of major challenges, such as the COVID-19 pandemic.

To achieve these objectives, we will employ a cross-sectional survey design, assessing participants' subjective well-being, adaptive-convergent and exaptive-divergent thinking, sociodemographic characteristics, and perceived impact of the coronavirus pandemic. We will conduct a series of linear regression analyses to (1) examine the associations between adaptive-convergent and exaptive-divergent thinking and subjective well-being, (2) investigate the robustness of these associations after controlling for sociodemographic factors, and (3) explore the differential roles of these thinking strategies in relation to the perceived impact of the coronavirus pandemic.

Our study seeks to bridge the gap between cognitive psychology, evolutionary theory, creativity research, and well-being literature, offering new insights into how different thinking strategies may contribute to subjective well-being in complex and rapidly changing environments. By doing so, we aim to contribute to a more nuanced understanding of the cognitive processes underlying human flourishing and resilience, and to inform the development of interventions aimed at promoting individual and collective well-being in the face of adversity.

THEORETICAL FRAMEWORK: ADAPTIVE-CONVERGENT AND EXAPTIVE-DIVERGENT THINKING IN THE CONTEXT OF WELL-BEING

In the domain of well-being research, we propose a novel theoretical framework that integrates two fundamental optimization strategies: adaptation and exaptation. These concepts, originally derived from evolutionary biology (Gould & Vrba, 1982), offer a unique lens for understanding how individuals navigate challenges and opportunities in their pursuit of well-being. We argue that these strategies closely align with the well-established concepts of convergent and divergent thinking in cognitive psychology, respectively, and play a crucial role in shaping subjective well-being.

Adaptation and convergent thinking

The concept of adaptive thinking, as we propose, closely corresponds to the notion of convergent thinking in cognitive psychology. This alignment can be understood through several key shared characteristics that underlie both processes. At its core, adaptive thinking involves the refinement and optimization of existing solutions to known problems. This process operates within a well-defined problem space, where the parameters and objectives are clearly specified (Kollar D. & Kollar J., 2019). Similarly, convergent thinking is characterized by a focused, analytical approach that narrows down possibilities to arrive at a single, best answer to a given problem (Guilford, 1967). Both processes, therefore, are guided by clear criteria for success and operate within a structured framework. Moreover, both adaptive and convergent thinking aim to achieve an optimal solution

through systematic improvement (Cropley, 2006). In the biological context, adaptation involves the gradual refinement of traits or behaviors that enhance an organism's fitness in a given environment (Darwin, 1859). Likewise, convergent thinking often involves the iterative refinement of potential solutions, where each iteration brings the thinker closer to the optimal outcome (Basadur et al., 2000). This shared emphasis on systematic improvement and incremental progress underlies the optimization of solutions within a given framework. The correspondence between adaptive and convergent thinking is further supported by research in cognitive psychology. Guilford (1967) identified convergent thinking as a key component of intelligence, characterized by the ability to find the single, correct solution to a problem. This conceptualization aligns with the notion of adaptation as an optimization process that hones in on the most effective solution to a given challenge. Furthermore, studies have shown that convergent thinking is associated with analytical problem-solving and decision-making (Brophy, 2001), which are essential for the systematic refinement of solutions in both biological and psychological contexts.

To illustrate this alignment, consider a chef who seeks to perfect a classic dish. The chef engages in adaptive-convergent thinking by systematically adjusting the recipe, tweaking ingredients, and refining cooking techniques to create the ideal flavor profile. This process is guided by a clear end goal (the perfect dish) and involves incremental improvements within a well-defined framework (the culinary tradition). The chef's approach mirrors the process of adaptation, where small, beneficial variations are selectively retained and accumulated over time to enhance the overall quality of the dish.

In the case of well-being, adaptive-convergent thinking manifests as the development and refinement of strategies to optimize physical, mental, and social functioning. For instance, an individual might systematically evaluate and adjust their work-from-home setup to enhance productivity and comfort, or methodically refine their exercise routine to maximize health benefits. These processes involve the same key features of adaptive-convergent thinking: a clear problem space (managing stress, enhancing well-being), a systematic approach to improvement (evaluating and adjusting routines), and the accumulation of incremental benefits over time (increased productivity, better health outcomes).

In conclusion, the correspondence between adaptive and convergent thinking is supported by their shared characteristics of operating within well-defined problem spaces, aiming for optimal solutions through systematic improvement, and accumulating incremental benefits over time. This alignment is evident across diverse contexts, from the culinary arts to organizational psychology, and is particularly relevant in the pursuit of well-being optimization. By recognizing the adaptive-convergent nature of certain well-being strategies, we can better understand the cognitive processes that contribute to resilience and thriving in the face of everyday challenges. This understanding, in turn, can inform the development of interventions and practices that foster adaptive-convergent thinking skills to promote individual and collective well-being.

Exaptation and divergent thinking

Exaptive thinking, a cognitive process we propose to be closely aligned with divergent thinking, involves the repurposing of existing solutions or structures to tackle novel problems or seize unforeseen opportunities. The connection between these two modes of thought can be understood through several key shared characteristics that form the foundation of both processes. The essence of exaptive thinking lies in the creative application of existing structures to uncharted domains. This process is inherently open-ended and exploratory, challenging individuals to break free from the confines of a solution's original purpose and envision its potential utility in new and unfamiliar contexts. In a similar vein, divergent thinking is characterized by the generation of multiple ideas and the exploration of diverse possibilities (Guilford, 1967). Both processes, therefore, demand a flexible and imaginative approach to problem-solving that transcends the boundaries of established frameworks. The driving force behind both exaptive and divergent thinking is the recognition of new opportunities and the potential for innovative combinations. Exaptation, in the biological context, occurs when a trait or structure originally evolved for one function is co-opted for a different purpose (Gould & Vrba, 1982). Similarly, divergent thinking often involves recombining existing ideas or identifying surprising connections between seemingly unrelated concepts (Mednick, 1962). The shared emphasis on novel combinations and the recognition of latent potential forms the creative core of both processes. The alignment between exaptive and divergent thinking finds further support in cognitive psychology research. Runco (1999) characterizes divergent thinking as "cognition that leads in various directions" (p. 577), highlighting its exploratory and open-ended nature. This conceptualization echoes the notion of exaptation as a process that involves the repurposing of existing structures for new functions. Furthermore, studies have shown that divergent thinking is linked to creativity, originality, and the ability to generate multiple solutions to a given problem (Plucker et al., 2011), which are essential for identifying novel applications and opportunities in both biological and psychological contexts.

To illustrate this correspondence, let us consider the development of the microwave oven. The magnetron, a key component of the microwave oven, was initially designed for use in radar systems during World War II. However, through exaptive-divergent thinking, engineers repurposed this technology for cooking food, leading to the invention of a revolutionary kitchen appliance (Osepchuk, 1984). This example showcases how exaptive thinking involves the creative application of existing structures to novel domains, mirroring the exploratory and combinatorial nature of divergent thinking.

In the realm of well-being, exaptive-divergent thinking manifests as the ability to discover unexpected uses for existing resources or to reframe challenges as opportunities for growth. During the COVID-19 pandemic, for instance, many people found themselves grappling with the sudden loss of access to gyms and fitness studios. In response, some individuals demonstrated exaptive-divergent thinking by repurposing common household items as makeshift exercise equipment. They transformed water jugs into weights, used towels as yoga mats, and turned staircases into cardio machines. By creatively adapting these everyday objects for fitness purposes, they were able to

maintain their physical well-being despite the constraints imposed by lockdown measures. These processes embody the key features of exaptive-divergent thinking: recognition of new opportunities (maintaining fitness routines), creative application of existing structures (household items), and generation of innovative solutions (DIY exercise equipment).

The similarity between exaptive and divergent thinking also finds expression in the field of positive psychology. “Benefit finding,” as described by Helgeson et al. (2006), involves the ability to extract positive meaning from adverse situations. This process requires individuals to look beyond immediate challenges and identify unexpected opportunities for growth and resilience. In the context of well-being, benefit finding can be understood as an exaptive-divergent process, as it involves the repurposing of negative experiences for positive outcomes and generation of novel perspectives on adversity.

Moreover, the correspondence between exaptive and divergent thinking is bolstered by research on creativity and innovation. Gabora and Ganesh (2020) defines cognitive exaptation as “the capacity to adapt a particular pattern of thought or behavior from its original application to a new one, or the re-purposing of an object designed for one use for use in another context” (p. 3), underscoring its divergent nature. This conceptualization resonates with the notion of “conceptual combination” in creativity research, which involves merging two or more concepts to generate novel ideas (Ward et al., 1997). Both processes involve repurposing of existing structures and generation of new combinations, highlighting the creative and exploratory nature of exaptive-divergent thinking.

In conclusion, the alignment between exaptive and divergent thinking is supported by their shared characteristics of open-ended exploration, recognition of new opportunities, and generation of novel combinations. This correspondence is evident across diverse contexts, from technological innovation to personal well-being, and is particularly relevant in the pursuit of creative problem-solving and resilience. By recognizing the exaptive-divergent nature of certain well-being strategies, such as benefit finding and the repurposing of resources, we can better understand the cognitive processes that contribute to adaptability and thriving in the face of novel challenges. This understanding, in turn, can inform development of interventions and practices that foster exaptive-divergent thinking skills to promote individual and collective well-being in the face of uncertainty and change.

DYNAMIC INTERPLAY BETWEEN ADAPTIVE-CONVERGENT AND EXAPTIVE-DIVERGENT THINKING

Dynamic interplay between adaptive-convergent and exaptive-divergent thinking is crucial for understanding how individuals maintain and enhance their well-being, particularly in complex and rapidly changing environments. This interplay can be understood as a manifestation of psychological flexibility, which Kashdan and Rottenberg (2010) define as the ability to adapt to fluctuating sit-

uational demands, shift mindsets or behavioral repertoires when needed, maintain balance among important life domains, and be open and committed to behaviors that are congruent with deeply held values. We argue that psychological flexibility is facilitated by the ability to effectively employ both adaptive-convergent and exaptive-divergent strategies, allowing individuals to navigate the “constructive tension” (Ryff & Singer, 2008) between stability and change.

The importance of this interplay can be illustrated through the example of an artist seeking to create a new painting. The artist may begin by engaging in exaptive-divergent thinking, generating a wide range of ideas and exploring unconventional techniques or materials. This process involves the open-ended exploration of possibilities and the generation of novel combinations, which are key characteristics of divergent thinking (Guilford, 1967). Once a promising direction is identified, the artist may switch to adaptive-convergent thinking, refining the composition, color scheme, and brushwork to bring the vision to life. This process involves systematic optimization of the artwork within the constraints of the chosen medium and style, which are hallmarks of convergent thinking (Cropley, 2006). Alternation between divergent and convergent processes enables the artist to balance creativity and craftsmanship in the pursuit of a meaningful and satisfying piece of art, demonstrating the value of psychological flexibility in the creative process.

It’s important to note that while we draw these correspondences, the relationships between these concepts are not absolute or mutually exclusive. Adaptive processes may involve elements of divergent thinking in generating potential solutions, just as exaptive processes may employ convergent thinking in refining new applications. This nuanced understanding is supported by dual process theories of cognition (Evans, 2003), which suggest that both analytical (convergent) and intuitive (divergent) processes contribute to decision-making and problem-solving. The relative emphasis on each process may vary depending on the nature of the task and the individual’s cognitive style, but the ability to flexibly engage both processes is essential for optimal functioning.

Relevance of these thinking strategies becomes particularly salient in the context of major societal challenges, such as the COVID-19 pandemic. Adaptive-convergent thinking may help individuals optimize their routines and behaviors to comply with health guidelines and manage daily stressors. This aligns with research on coping strategies during the pandemic, which has found that problem-focused coping (a form of adaptive thinking) is associated with better mental health outcomes (Shamblaw et al., 2021). For instance, an individual might use adaptive-convergent thinking to develop a systematic schedule for grocery shopping and other essential tasks, minimizing potential exposure to the virus while ensuring that their basic needs are met. This process involves systematic optimization of behavior within the constraints of the pandemic, demonstrating the value of adaptive-convergent thinking in maintaining well-being during challenging times. Simultaneously, exaptive-divergent thinking may enable people to creatively repurpose existing resources or skills to address novel challenges posed by the pandemic, potentially discovering new sources of meaning and fulfillment in the process. This is consistent with findings on the role of creativity in resilience during times of crisis (Metzl & Morrell, 2008) and the concept of post-traumatic growth (Tedeschi & Calhoun, 2004). Rapid transition of many businesses to online platforms during

lockdowns is a solid example of this. Restaurants that previously relied on in-person dining used exaptive-divergent thinking to transform their operations, offering takeout, delivery, and meal kits. This creative repurposing of existing resources allowed these businesses to not only survive but also discover new opportunities for growth and innovation (Kim, 2020). Ability to engage in exaptive-divergent thinking, therefore, is crucial for resilience and adaptability in the face of novel challenges.

By examining the relationships between these thinking strategies and subjective well-being, we aim to contribute to a more nuanced understanding of the cognitive processes that underlie resilience and flourishing in the face of adversity. This framework not only provides a theoretical basis for our empirical investigation but also offers potential insights for interventions aimed at enhancing well-being through cultivation of balanced and flexible thinking strategies. Our approach aligns with recent calls in positive psychology for more integrative and contextualized models of well-being (Wong, 2011; Lomas & Ivtzan, 2016), acknowledging the complexity of human cognition and its role in shaping subjective well-being across various life contexts.

In sum, our theoretical framework posits that the dynamic interplay between adaptive-convergent and exaptive-divergent thinking is crucial for understanding how individuals maintain and enhance their well-being in the face of complex challenges. By drawing upon examples from various domains, we have illustrated how these thinking strategies manifest themselves in real-world contexts and contribute to resilience, innovation, and personal growth. While we acknowledge the nuances and overlaps between these concepts, we argue that the primary orientation and function of each strategy aligns closely with the well-established notions of convergent and divergent thinking in cognitive psychology. Through this integrative perspective, we aim to provide a more comprehensive understanding of the cognitive processes that underlie well-being optimization, particularly in the context of major societal challenges such as the COVID-19 pandemic.

EMPIRICAL ANALYSIS

The theoretical framework presented in the previous section highlights the potential importance of adaptive-convergent and exaptive-divergent thinking strategies in promoting subjective well-being, particularly in the context of major societal challenges like the COVID-19 pandemic. Building upon this foundation, the present study aims to empirically investigate the relationships between these thinking strategies and well-being, while controlling for relevant sociodemographic factors and the perceived impact of the coronavirus pandemic.

To achieve this objective, we conducted a cross-sectional survey study on a representative sample of the Hungarian adult population. The survey assessed participants' subjective well-being using a comprehensive measure that encompasses various aspects of the construct, including life satisfaction, emotional state, and domain-specific satisfaction. Additionally, we developed and

validated scales to measure adaptive-convergent and exaptive-divergent thinking, drawing upon established psychological tests of convergent and divergent thinking.

In our analyses, we employed a series of hierarchical linear regression models to examine the relationships between adaptive-convergent and exaptive-divergent thinking and subjective well-being. These models allowed us to assess the unique contributions of these thinking strategies to well-being, while controlling for the effects of sociodemographic variables and the perceived impact of the coronavirus pandemic.

Specifically, our analytical strategy involved four key steps:

- First, we examined the bivariate relationships between adaptive-convergent and exaptive-divergent thinking and subjective well-being, testing the basic proposition that these thinking strategies are associated with higher levels of well-being.
- Second, we introduced sociodemographic control variables (e.g., age, gender, education, relationship status) into the model to assess robustness of the relationships between thinking strategies and well-being, controlling for potential confounding effects of these factors.
- Third, we included perceived impact of the coronavirus pandemic as an additional predictor in the model, allowing us to examine unique contributions of adaptive-convergent and exaptive-divergent thinking to well-being, above and beyond the effects of the pandemic.
- Finally, we explored differential roles of these thinking strategies in relation to the perceived impact of the coronavirus, by examining the relationships between adaptive-convergent and exaptive-divergent thinking and the pandemic impact variable.

This step-wise analytical approach enabled us to provide a comprehensive assessment of relationships between adaptive-convergent and exaptive-divergent thinking and well-being, while considering the complex interplay of sociodemographic factors and the impact of the pandemic. By examining these relationships in a hierarchical manner, we aimed to offer nuanced insights into the cognitive processes that may contribute to resilience and flourishing in the face of adversity. Results of these analyses not only tested the propositions of our theoretical framework but also offered valuable insights into potential protective factors that may promote well-being and adaptability in times of crisis. Moreover, by exploring the differential roles of adaptive-convergent and exaptive-divergent thinking in relation to the pandemic's impact, we sought to shed light on the cognitive processes that may underlie individuals' ability to navigate novel challenges and adapt to changing circumstances.

In the following sections, we will present details of our methods, including sample characteristics and measures used, before delving into the results of our analyses. We will then discuss the implications of our findings for theory, research, and practice, highlighting potential applications of our framework for promoting well-being and resilience in the face of complex societal challenges.

MATERIAL AND METHOD

The present study is based on a survey of 998 respondents², representing the Hungarian population aged 18 and over, conducted by the Századvég Foundation between December 1 and 17, 2020, using a computer-assisted telephone interviewing (CATI) method. Biases due to sampling were corrected by iterative weighting according to the demographic proportions recorded by the 2016 microcensus of the Hungarian Central Statistical Office. The relevant sample is representative of the adult Hungarian population by gender, age group, settlement type, and educational attainment.

DEPENDENT VARIABLE

A shortened and extended version of the WHOQOL-BREF questionnaire was used to measure well-being. The questionnaire originally consisted of 26 items grouped into four dimensions: 1. physical health, 2. psychological well-being, 3. social relationships, and 4. environment. However, recent research has shown that a single factor solution can be used well in addition to the four-factor solution and even better according to some authors (Nørholm & Bech, 2001; Wang et al., 2006; Najafi et al., 2013). In line with this, in our research we created a single-factor approach using eight questions from the WHOQOL-BREF questionnaire³. Four of these were related to Physical Health, two to Psychological Well-being and one to Social Relations and Environment. In addition to these, four other questions were also used. Three of these were taken from the Oxford Happiness Questionnaire⁴ and one from the European Value Study. One of these measures overall satisfaction with life⁵ and the other measures current satisfaction⁶. The third question asks about outward expression of well-being (laughter) and the fourth, conversely, asks how often the respondent feels down⁷.

The selected items cover various aspects of well-being, including satisfaction with life, emotional state, sense of meaning, safety, energy, personal relationships, concentration, sleep, and negative feelings. These items were chosen because they capture key components of overall well-being as identified in the literature (Diener et al., 2009; Ryff, 1989). Selection of these items is grounded in the multidimensional conceptualization of well-being, which posits that well-being is not a single construct, but rather a complex phenomenon that encompasses various domains of life (Keyes, 2007; Seligman, 2011). By including items that tap into these different domains, we aimed to create a measure that captures breadth and depth of the well-being construct. This approach is in line with recommendations of leading well-being researchers who argue that a comprehensive assessment of well-being should include measures of both hedonic (e.g., life satisfaction, positive affect)

2 Initially, 1,000 respondents were sampled; however, two cases were excluded due to a high rate of item non-response.

3 Possible answers: 1. Not at all, 2. To a small extent, 3. To a moderate extent, 4. To a large extent, 5. To a large extent.

4 http://www.blake-group.com/sites/default/files/assessments/Oxford_Happiness_Questionnaire.pdf

5 Answer options: 1. Not at all, 2. Rather not, 3. Rather yes, 4. Absolutely.

6 Answer options: 0. Extremely satisfied—10. Totally satisfied.

7 Answer options in both cases: 1. Not at all, 2. Rather no, 3. Rather yes, 4. Absolutely.

and eudaimonic (e.g., meaning, personal growth) dimensions (Huppert & So, 2013; Ryan & Deci, 2001). Moreover, inclusion of items related to physical health (e.g., satisfaction with health, energy levels, sleep) recognizes the important role that physical well-being plays in overall well-being. Research has consistently shown that physical health is a strong predictor of subjective well-being (Okun et al., 1984; Steptoe et al., 2015) and that neglecting this domain can lead to an incomplete understanding of an individual's overall well-being. Furthermore, inclusion of an item related to safety ("How safe do you feel in your daily life?") acknowledges the importance of the environmental context in shaping well-being. Literature on social determinants of health has highlighted how factors such as neighborhood safety, social cohesion, and access to resources can significantly impact an individual's well-being (Marmot et al., 2008; Wilkinson & Marmot, 2003). By including items that cover these various aspects of well-being, we aimed to create a comprehensive measure of overall well-being that is sensitive to the multifaceted nature of the construct. This approach not only aligns with the theoretical conceptualizations of well-being but also provides a more nuanced understanding of an individual's well-being by considering the various domains that contribute to it. By capturing this complexity, our measure has the potential to provide valuable insights into the factors that promote or hinder well-being, which can then inform development of targeted interventions and policies aimed at enhancing well-being at both individual and societal levels (Table 1).

Table 1. Items used to measure well-being

Dimension	Claim	Source
Psychological	I am well-satisfied about everything in my life.	Oxford Happiness Questionnaire
Psychological	(R) I feel down (<i>I don't feel particularly pleased with the way I am</i>). ^A	Oxford Happiness Questionnaire
Psychological	(R) There is a gap between what I would like to do and what I have done.	Oxford Happiness Questionnaire
Psychological	I laugh a lot.	Oxford Happiness Questionnaire
Psychological*	All things considered, how satisfied are you with your life as-a-whole these days?	European Value Study
Physical health	How satisfied are you with your health?	WHOQOL-BREF
Psychological	To what extent do you feel your life to be meaningful?	WHOQOL-BREF
Environment	How safe do you feel in your daily life?	WHOQOL-BREF
Physical health	Do you have enough energy for everyday life?	WHOQOL-BREF
Social contacts	How satisfied are you with your personal relationships?	WHOQOL-BREF
Psychological	How well are you able to concentrate?	WHOQOL-BREF
Physical health	How satisfied are you with your sleep?	WHOQOL-BREF
Physical health	How often do you have negative feelings such as blue mood, despair, anxiety, or depression?	WHOQOL-BREF

Source: own editing

^A The original statement in the English questionnaire – "*I don't feel particularly pleased with the way I am*" – was simplified to "*I feel down*" in the Hungarian version after pilot testing.

Homogeneity of the 11-item questionnaire was high, with Chronbach's alpha of 0.853. In the single principal component solution, factor weights of the items were all above 0.58 and explained

variance was 44.2%. In other words, the items used seem to be suitable for empirically capturing general well-being, as evidenced by the homogeneity and the results of the principal component analysis. The selected items cover various aspects of well-being, including cognitive, emotional, social, and psychological dimensions, providing a comprehensive measure of overall well-being.

EXPLANATORY VARIABLES

Adaptive-convergent and Exaptive-divergent approaches

Three items were created to measure adaptive-convergent and exaptive-divergent attitudes, which respondents were asked to rate on a five-point Likert scale. In designing the questions, we drew heavily on the study by Soroa et al. (2015) (Table 2).

Table 2. Divergent (exaptive) and (convergent) Adaptive Attitudes

Divergent (Exaptive) attitude	Convergent (Adaptive) attitude
I like to find connections between independent ideas, thoughts.	I try to weigh up all the pros and cons before making decisions.
I like to see old things in a new light.	I like one step in an activity to follow logically from another.
It is important for me to solve problems in an original way.	I like clearly defined tasks and clear goals.

Source: own editing

Reliability and validity of developed scales were tested in two steps. In the first step, reliability of the scales was assessed by Cronbach's Alpha and principal component analysis. Results of the reliability analysis show that each scale shows acceptable internal consistency. For the adaptive-convergent scale, the Cronbach's Alpha index value is at $\alpha = 0.65$ and for the exaptive-divergent scale, $\alpha = 0.63$. The two-factor solution generated through principal component analysis confirms the results of reliability analysis. The KMO index is 0.774 and the variance retained by the two principal components is close to 60% (59.5%).

While Cronbach's alpha values for adaptive-convergent ($\alpha = 0.65$) and exaptive-divergent ($\alpha = 0.63$) scales are slightly lower than the commonly accepted threshold of 0.70, it is crucial to consider the nature and purpose of these scales. It is important to note that these scales were developed specifically for this exploratory study and each consists of only three items. Cronbach's alpha is sensitive to the number of items in a scale, and it is not uncommon for scales with fewer items to have lower alpha values (Cortina, 1993; Tavakol & Dennick, 2011). In fact, Briggs and Cheek (1986) argue that for scales with a small number of items, inter-item correlations between 0.2 and 0.4 are considered optimal, and the mean inter-item correlations for the adaptive-convergent ($r = 0.38$) and exaptive-divergent ($r = 0.36$) scales fall within this range.

Given the exploratory nature of this research and the intentionally limited number of items in each scale, the obtained alpha values can be considered acceptable for the purpose of this study (Hair et al., 2010). Furthermore, the principal component analysis provides additional support for the validity of the scales, with the two-factor solution confirming the distinction between the adaptive-convergent and the exaptive-divergent constructs. The clear factor structure and acceptable factor loadings of the items on their respective scales demonstrate the scales' structural validity (DeVellis, 2017).

Additionally to testing the reliability of the developed scales, conceptual validity of the statements was examined by means of a small sample online questionnaire⁸ (n = 50). Participants were able to provide their responses *via* the SurveyGizmo interface. The online questionnaires were shared on social networking sites' news feeds and groups. The target population of the study was adults. The primary question in this case was whether a relationship could be observed between the self-completed survey items and established psychological tests measuring convergent and divergent thinking.

The scale for *adaptive-convergent attitude* was validated with the *remote association test*. In this task, participants are asked to find a word that links three pre-specified words. For example, for the words "film," "falling," and "light," "star" is the correct answer. In this task, participants were given 5 items of different difficulty. The list of items is given in the appendix. Although the test was originally used to measure divergent thinking (Mednick & Mednick, 1967), recent research has shown that it is more suitable for capturing patterns of convergent thinking (Taft & Rossiter, 1966; Lee & Therriault, 2013; Lee, Huggins, & Therriault 2014). This is mainly because completion of the test requires the subject to guess a predetermined 'right answer.'

The *exaptive-divergent approach* was operationalized through Guilford's (1967) *Alternative Use Test*. In this task, we asked participants to list as many "alternative" uses as possible for two common items (bricks and paper clips). Our interpretation of Guilford's test is that it fits very well with the phenomenon we want to investigate, since the alternative use of everyday objects captures the process of exaptation in an essentially explicit way. In evaluating the test, we assigned originality score to each respondent, for which we modified the solution of DeYoung et al. (2008). First, we counted the frequency of each use (n), and then subsequently

$$y = \frac{1}{n}$$

following a formula to determine the value of each response. The originality score for each respondent was then calculated using the

$$\frac{y_1 + y_2 \dots + y_n}{n_y}$$

formula (Table 3).

8 The use of low-item samples is common practice in the psychology research. Nevertheless, the results should be treated with minor reservations.

Table 3. Relationship between psychology tests and attitude scales—correlation (n = 50)

	Exaptive-divergent	Adaptive-convergent	AUT: Originality	RAT
Exaptive-divergent	1			
Adaptive-convergent	0.05	1		
AUT: Originality	.45***	-0.26*	1	
RAT	0.18	.37***	-0.01	1

Source: own editing

Correlation coefficients between survey items and the tests used are illustrated in the table above. The results show a significant, moderately strong relationship between the self-report survey items and the established psychological tests measuring convergent and divergent thinking. The significant positive correlation between the exaptive-divergent scale and the Alternative Use Test (AUT) originality score ($r = .45$, $p < .001$) provides evidence for convergent validity of the exaptive-divergent scale. This finding suggests that individuals who score higher on the exaptive-divergent scale tend to generate more original responses in the AUT, which is consistent with the conceptualization of exaptive-divergent thinking as involving creative repurposing of existing structures for novel functions. Similarly, the significant positive correlation between the adaptive-convergent scale and the Remote Association Test (RAT) score ($r = .37$, $p < .001$) supports convergent validity of the adaptive-convergent scale. This result indicates that individuals who score higher on the adaptive-convergent scale tend to perform better on the RAT, which requires identifying a single correct solution that links three seemingly unrelated words. This aligns with the conceptualization of adaptive-convergent thinking as involving systematic optimization of solutions within existing constraints.

In conclusion, results of the validation study provide initial support for reliability and validity of the adaptive-convergent and exaptive-divergent attitude scales developed in this research. Principal component analysis and Cronbach's alpha values indicate that the scales have acceptable internal consistency. Concurrently, the correlations with established psychological tests of convergent and divergent thinking provide evidence for the convergent and discriminant validity of the scales.

Control variables

Research on well-being has shown that the level of individual well-being is fundamentally influenced by different sociodemographic variables. It can be hypothesised that these variables may also influence the impact of exaptive-divergent and adaptive-convergent variables on subjective well-being. To control for these effects, we included several different control variables in our model.

Sex: Although international research shows that women tend to report higher overall well-being (Alesina, Di Tella, & MacCulloch, 2004), the present research⁹ shows that men are slightly better off.

⁹ See Appendix 1.

Age: Several international studies have shown that there is a U-shaped relationship between age and well-being—that is, young and old people are happier than middle-aged people (Blanchflower & Oswald, 2004). Our descriptive data show that this relationship is not observed here. That is, well-being levels decline with age.

Education: Some international research shows that well-being increases “linearly” with educational attainment (Blanchflower & Oswald, 2004), while other research has shown that those with secondary education report the highest levels of subjective well-being (Stutzer, 2004). Research in Hungary shows that as educational attainment increases, so does well-being (KSH, 2018).

Relationship: Both Hungarian (KSH, 2018; Patkós & Farkas, 2020) and international research (Dolan, Peasgood, & White, 2008) show that living in a relationship increases well-being. In general, those who live alone report the lowest well-being and those who are married report the highest (KSH, 2018).

Religiousness: Vast majority of studies that have examined the relationship between religiosity and well-being have found a positive relationship between the two variables. That is, religious people in the same life situation are slightly happier than non-religious people (Lewis, Maltby, & Day, 2005; Patkós & Farkas, 2020).

Coronavirus pandemic: Current international research shows that the more a person’s life was affected by the coronavirus epidemic, the lower the well-being was reported (Foa, Fabian, & Gilbert, 2022; Paredes et al., 2021).

RESULTS

In the following, we use multiple linear regression models to examine how each factor explains subjective well-being. The models include variables for adaptive-convergent and exaptive-divergent thinking, sociodemographic control variables (education, marital status, gender, age, religiosity), and a variable that explores the psychological effects of the coronavirus (Table 4).¹⁰

Table 4. Factors affecting well-being (adaptive-convergent and exaptive-divergent attitudes), Regression model ($r^2 = 0.092$, $n = 998$)

	B	Std. error	Beta	t
Convergent***.	0.205	0.031	0.207	6.653
Divergent***	0.22	0.031	0.221	7.086
Explained variance	9.2%			

$p^{***} < 0.001$; $p^{**} < 0.01$; $p^* < 0.05$. Source: own editing

¹⁰ Please choose the value that best reflects your personal position between the two statements! 1. The coronavirus epidemic is very hard for me—7. The coronavirus epidemic is not hard for me at all.

First, in line with theoretical foundations, we examined whether a relationship between well-being and adaptive-convergent and exaptive-divergent thinking can be observed. The results of the regression model show that both adaptive-convergent and exaptive-divergent thinking are strongly significantly related to well-being. This means that the more they are characteristic of someone, the higher the level of this person's subjective well-being.

In order to determine the extent to which the impact of adaptive-convergent and exaptive-divergent attitudes on well-being can be attributed to other factors, in the second model the impact of the respective attitudes on well-being was controlled for by different sociodemographic variables. The explanatory power of the model increased to 16.2% with the variables included. However, examining the corresponding table, it can be concluded that there is still a moderate-strong relationship between well-being and the adaptive-convergent and exaptive-divergent thinking variables. Overall, the effect of the variable measuring exaptive-divergent thinking remained unchanged after including the sociodemographic variables and the effect of the variable measuring adaptive-convergent thinking decreased only minimally. That is, the effect of different thinking strategies on well-being is essentially independent of the sociodemographic characteristics of individuals. Nevertheless, it is worth noting that age and marital status also have a significant effect on general well-being, so the more stable one's relationship and the younger one is, the higher one's general well-being. In addition, gender and educational attainment also have a significant, albeit weaker, impact on well-being (Table 5).

Table 5. Factors affecting well-being, (convergent and divergent attitudes, demographic variables), Regression model ($r^2 = 0.162$, $n = 998$)

	B	Std. error	Beta	t
Education*	0.076	0.03	0.081	2.57
Relationship***	0.157	0.035	0.137	4.436
Sex**	-0.183	0.062	-0.092	-2.959
Age***	-0.009	0.002	-0.164	-5.216
Religiousness	0.024	0.015	0.052	1.651
Convergent***	0.18	0.03	0.181	5.928
Divergent***	0.215	0.031	0.215	7.018
Explained variance	16.2%			

$p^{***} < 0.001$; $p^{**} < 0.01$; $p^* < 0.05$. Source: own editing

A variable measuring the impact of the coronavirus epidemic was included in the third model. As a result, the explanatory power of the model increased by 31.7%. This means that there is a strong correlation between the impact of the coronavirus epidemic and generalised well-being. Never-

theless, the effect of adaptive-convergent and exaptive-divergent variables on well-being changed only minimally, although the latter showed a slight decrease (Table 6).

Table 6. Factors influencing well-being, (convergent and divergent attitudes, demographic variables, impact of coronavirus epidemic) Regression model ($r^2 = 0.317$, $n = 998$)

	B	Std. error	Beta	t
Education**	0.082	0.027	0.088	3.081
Relationship***	0.155	0.032	0.136	4.874
Sex*	-0.11	0.056	-0.055	-1.969
Age***	-0.009	0.002	-0.153	-5.373
Religiousness**	0.034	0.013	0.075	2.601
Convergent***	0.184	0.027	0.186	6.731
Divergent***	0.172	0.028	0.172	6.193
Impact of the coronavirus epidemic***	0.189	0.013	0.4	14.466
Explained variance	31.7%			

$p^{***} < 0.001$; $p^{**} < 0.01$; $p^* < 0.05$. Source: own editing

Finally, we also looked at the relationships that can be observed when the effects of the coronavirus epidemic are included as a dependent variable in the model. The explanatory power of the model in this case is 2.5%. The results show that the only variable other than gender that has a significant effect is the variable measuring exaptive-divergent thinking (Table 7).

Table 7. Factors affecting the impact of coronavirus, (convergent and divergent attitudes, demographic variables), Regression model ($r^2 = 0.025$, $n = 998$)

	B	Std. error	Beta	t
Education	-0.032	0.067	-0.016	-0.472
Relationship	0.022	0.08	0.009	0.277
Sex**	-0.4	0.14	-0.095	-2.847
Age	-0.003	0.004	-0.029	-0.854
Religiousness	-0.055	0.033	-0.057	-1.667
Convergent	-0.026	0.069	-0.012	-0.38
Divergent**	0.217	0.069	0.103	3.136
Explained variance	2.5%			

$p^{***} < 0.001$; $p^{**} < 0.01$; $p^* < 0.05$. Source: own editing

DISCUSSION

The present study aimed to investigate the relationship between adaptive-convergent and exaptive-divergent thinking strategies and subjective well-being, while controlling for sociodemographic variables and the impact of the COVID-19 pandemic. The results provide valuable insights into the cognitive processes that contribute to well-being optimization, particularly in the context of major societal challenges.

The findings reveal that both adaptive-convergent and exaptive-divergent thinking are strongly associated with subjective well-being, even after controlling for sociodemographic factors. This suggests that the ability to employ these thinking strategies effectively plays a significant role in maintaining and enhancing well-being, regardless of individual differences in age, gender, education, or relationship status. The robustness of these effects underscores the importance of cognitive flexibility and the capacity to engage in both systematic problem-solving and creative exploration in the pursuit of well-being.

These results align with research in the field of creativity, which has long recognized the importance of both convergent and divergent thinking processes in fostering innovation and adaptability (Guilford, 1967; Cropley, 2006). The present study extends this line of inquiry by demonstrating relevance of these thinking strategies for subjective well-being. This suggests that the benefits of cognitive flexibility extend beyond the realm of creative performance and into the domain of personal flourishing.

Furthermore, inclusion of the coronavirus pandemic impact variable in the model significantly increased its explanatory power, indicating that the pandemic had a substantial influence on subjective well-being. This finding aligns with recent research highlighting the detrimental effects of the COVID-19 crisis on mental health and well-being worldwide (Xiong et al., 2020; Vindegaard & Benros, 2020). Interestingly, the effects of adaptive-convergent and exaptive-divergent thinking on well-being remained largely unchanged after accounting for the pandemic's impact, suggesting that these cognitive strategies may serve as protective factors in the face of adversity.

The results also shed light on the differential roles of adaptive-convergent and exaptive-divergent thinking in the context of the pandemic. While both strategies were associated with higher levels of well-being, only exaptive-divergent thinking had a significant relationship with the perceived impact of the coronavirus. This finding suggests that individuals who engage in more exaptive-divergent thinking may be better equipped to navigate the novel challenges posed by the pandemic, potentially by repurposing existing skills and resources to adapt to the changing circumstances. This interpretation aligns with research on the role of creativity and flexibility in fostering resilience during times of crisis (Metzl & Morrell, 2008; Killgore et al., 2020) and resonates with growing recognition of the importance of divergent thinking in navigating complex, real-world problems (Runco & Acar, 2012).

Moreover, the significant relationship between exaptive-divergent thinking and the perceived impact of the pandemic lends support to the concept of "exaptive resilience" (Kollár D. & Kollár J.,

2019). This notion suggests that the ability to repurpose existing resources and strategies for novel challenges, a key feature of exaptive-divergent thinking, may be particularly crucial for maintaining well-being and adaptability in the face of unexpected adversity. The present findings provide empirical evidence for this idea, highlighting the potential protective role of exaptive-divergent thinking in the context of the COVID-19 crisis.

The present study contributes to the growing body of literature on the cognitive underpinnings of well-being by proposing a novel framework that integrates adaptive-convergent and exaptive-divergent thinking strategies. By drawing upon evolutionary and cognitive perspectives, this framework offers a more nuanced understanding of how individuals optimize their well-being in the face of complex challenges. The findings support the notion that psychological flexibility, which involves the ability to engage in both convergent and divergent thinking processes, is crucial for maintaining and enhancing well-being (Kashdan & Rottenberg, 2010).

In addition, the study bridges the gap between creativity research and well-being literature by highlighting the relevance of cognitive processes typically associated with creative output for subjective well-being. This integration opens new avenues for research and theory development. It also invites further exploration of the relationships between creative cognition, adaptive functioning, and personal flourishing.

The results also have important practical implications for interventions aimed at promoting well-being, particularly in the context of major societal challenges like the COVID-19 pandemic. The findings suggest that fostering adaptive-convergent and exaptive-divergent thinking skills may be an effective way to bolster resilience and support well-being optimization. This could involve developing training programs or educational initiatives that encourage individuals to engage in systematic problem-solving and creative exploration, as well as cultivating a mindset that embraces both stability and change. Such interventions could draw upon established techniques from creativity training (Scott et al., 2004) and adapt them to the context of well-being promotion.

CONCLUSION AND LIMITATIONS

In conclusion, the present study provides empirical support for the role of adaptive-convergent and exaptive-divergent thinking strategies in promoting subjective well-being, even in the face of major societal challenges like the COVID-19 pandemic. By proposing a novel theoretical framework that integrates evolutionary, cognitive, and creativity perspectives, this research contributes to a more nuanced understanding of the cognitive processes underlying well-being optimization. The findings have important implications for developing interventions aimed at fostering resilience and supporting well-being in times of crisis, highlighting the importance of cultivating cognitive flexibility and the capacity to engage in both systematic problem-solving and creative exploration. As such, this study represents a promising step towards a more integrative understanding of the

cognitive underpinnings of human flourishing, inviting further research at the intersection of creativity, adaptability, and well-being.

However, limitations of the present study should also be acknowledged here. First, the cross-sectional nature of the data precludes causal inferences about the relationship between thinking strategies and well-being. Future research employing longitudinal or experimental designs could provide a more comprehensive understanding of the directionality and potential reciprocal relationships between these variables over time. Second, reliance on self-report measures may be subject to response biases, such as social desirability or memory biases. Incorporation of objective measures of well-being and cognitive performance in future studies could strengthen validity of the findings and provide a more comprehensive assessment of the relationships between thinking strategies and well-being. Third, while the adaptive-convergent and exaptive-divergent thinking scales demonstrated acceptable reliability and validity, further refinement and validation of these measures is warranted. Developing more comprehensive scales that capture additional facets of these constructs and exploring their relationships with other well-established measures of cognitive style, flexibility, and creativity could enhance the theoretical and empirical foundations of this research. Finally, the present study was conducted in the specific cultural context of Hungary, and generalizability of the findings to other populations remains to be established. Cross-cultural research is needed to explore universality or cultural specificity of the relationships between thinking strategies and well-being, as well as the potential influence of sociocultural factors on the expression and impact of these cognitive processes.

Acknowledgements

Dávid Kollár received professional support for this study within the framework of the University Excellence Scholarship Programme (code EKÖP-24), funded by the National Research, Development and Innovation Fund of the Ministry of Culture and Innovation.

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APPENDIX

1. Remote Associates Test items used in the validation study (Hungarian and English translation):

1. Film, Hulló, Fény (Csillag) [film, falling, light (star)]
2. Tej, Egér, Márvány (Sajt) [milk, mouse, marble (cheese)]
3. Folyó, Bank, Szám (Számla) [river, bank, account (current)]
4. Hős, Nóva, Gyors (Szuper) [hero, nova, quick (super)]
5. Opera, Kéz, Buborék (Szappan) [opera, hand, bubble (soap)]

2. Descriptive statistics for the LATENT variables

	Convergent		Divergent		Well-being	
	Average	Standard deviation	Average	Standard deviation	Average	Standard deviation
Male	0.05	0.86	-0.04	1.01	0.14	0.93
Female	-0.04	1.11	0.04	0.99	-0.12	1.04
18–29	0.04	0.93	0.06	1.00	0.22	0.89
30–39	-0.11	1.19	-0.02	1.02	0.24	0.84
40–49	0.20	0.72	0.03	0.96	0.03	1.15
50–59	-0.03	1.15	0.07	0.92	-0.04	0.94
60+	-0.07	0.98	-0.08	1.05	-0.26	1.01
Eight general or lower	-0.22	1.35	0.14	1.03	-0.22	1.14
Vocational school or apprenticeship	0.02	0.90	-0.01	0.98	-0.04	1.11
Secondary school leaving certificate	0.04	0.90	-0.06	1.03	0.05	0.88
College or university degree	0.14	0.76	-0.04	0.94	0.20	0.84
Single	-0.17	1.19	0.04	0.99	-0.26	1.02

	Convergent		Divergent		Well-being	
	Average	Standard deviation	Average	Standard deviation	Average	Standard deviation
Living in a relationship	0.12	0.86	0.05	1.03	0.11	1.06
Married	0.07	0.87	-0.06	0.99	0.15	0.91
Unreligious	0.05	0.91	-0.18	1.09	-0.06	1.14
2	-0.01	0.81	-0.06	0.98	-0.07	0.83
3	0.06	0.96	-0.06	0.95	0.16	0.91
4	0.06	0.83	-0.10	0.95	-0.10	0.96
5	0.06	0.87	0.13	0.93	0.12	0.92
6	-0.08	0.87	0.05	0.98	-0.10	0.98
Religious	-0.11	1.38	0.17	1.00	-0.02	1.06
The coronavirus pandemic is hitting hard	0.09	0.99	0.04	0.98	-0.71	1.13
2	-0.15	0.96	0.00	0.94	-0.34	0.92
3	-0.04	0.94	-0.21	1.06	-0.32	1.00
4	0.06	0.92	-0.22	1.06	-0.03	0.74
5	-0.04	0.79	0.00	0.92	0.18	0.73
6	0.02	1.01	0.06	0.89	0.38	0.71
The coronavirus pandemic is not affecting you at all	0.00	1.21	0.22	1.00	0.55	0.88

