

How does Heymans' Personality Typology compare to the LINC Personality Profiler?

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Abstract

The Big Five personality traits are commonly accepted as the prevailing evidence-based personality model of modern research (Feher & Vernon, 2021; de Raad & Mlačić, 2015). The Five-Factor Model (FFM) is therefore still used in practice, as it is in the LINC personality profiler (LPP). However, there have been scientific approaches to classifying personality on dimensions before the development of the FFM. In fact, in the beginning of the 20th century, Gerardus Heymans developed a scientifically based personality typology that categorized personality types in a dimensional manner (Heymans, 1932).

This paper is concerned with Heymans' personality typology and how it compares to LPP. Historical, qualitative methods are used to investigate this matter. To understand the similarities and differences between Heymans' classification and the LPP, I will firstly explain Heymans' personality taxonomy in detail. Subsequently, the LPP, which makes use of the Big Five personality traits, will be discussed. Taking into account the historical context, a comparison of the two personality model's strengths and weaknesses is performed. This comparison focuses on the system's scientific foundation and their manner of personality classification. In addition, the model's common underlying intention of identifying the most suitable job-person fit is elucidated.

The absence of quantitative methods limits but, also adds to the value of this paper which is discussed afterwards. Lastly, in line with the model's shared intention, their beneficial potential for overall quality of life is contoured in the discussion.

Keywords: Heymans, Heyman's cube, temperamental dimensions, LINC personality profiler (LPP), Big Five personality traits, Five Factor Model (FFM), differential psychology, job-person fit

Two Distinct Personality Inventories Sharing a Common Ground

The positive effect of job satisfaction on subsequent life satisfaction has been established by numerous studies (Judge & Watanabe, 1993; Weziak-Bialowolska et al., 2020). Fulfilment at the workplace appears to influence people's overall well-being in other life domains substantially (Judge & Watanabe, 1993). Therefore, determining which occupation is most suitable for an individual appears crucial to enhance overall psychological and physical well-being. This profession determination can be a challenging intra- or even inter-personal process. In line with that, the interest in supportive tools concerning personality testing and profiling has increased over the last decades (Tett & Christiansen, 2007). Individuals are interested in gaining more self-knowledge and companies are longing for an improved understanding of employee's competencies (Morgeson et al., 2007; Tett & Christiansen, 2007). Since finding the most suitable occupation for an individual is associated with overall life satisfaction (Weziak-Bialowolska et al., 2020), the rising demand for personality inventories appears comprehensible. Still, this focus is not novel since the growing importance of personality classification can be traced back to the early 20th century. A pioneering researcher, psychologist and philosopher that was committed to the taxonomy of personality in the early 20th century was Gerardus Heymans.

Heymans' personality typology was one of his most accredited pieces of work standing out by its three-dimensional array, scientific foundation and objective standards. The taxonomy is referred to as 'the cube' due to its shape. The cubic figure stems from the dimensional component's allocation (Heymans, 1932). Namely, an individual can demonstrate a high or low prevalence of three distinct components, which are depicted by one axis each. The *activity* dimension forms the x-axis, whereas a person's *emotionality* is depicted on the y-axis. The cube's depth is constituted by the third dimension of primary or secondary functioning, also referred to as *aftereffects*. The combination of absence or

presence of each of the three components results in one of the eight possible temperamental types within the cube. This typology is meant to serve an enhanced self-understanding and bears implications in regard to a person's vocational opportunities. The intention of increasing insights into individual capabilities behind Heymans' typology overlaps with the aim of more recent personality inventories.

Since the introduction of Heymans model is approximately a century ago, the intentional overlap between his model and modern personality inventories is striking. When investigating this common aim, taking a step back in history to comprehend Heymans' personality system can help understand contemporary personality models. The differences and similarities between Heymans' classification and the more modern, progressive model shed light on the advancement of personality description and testing over time. Particularly due to the increasing demand for personality examinations over the last decades (Furnham, 1996; Tett & Christiansen, 2007), the historical traces of personality description for vocational use are of interest. Additionally, the beneficial potential of qualified personality inventories on quality of life makes the comparison of these two models particularly worthwhile.

Thus, a contemporary, highly thriving personality index will be introduced and compared to Heymans' personality classification. The LINC Personality Profiler (LPP) is an instrument for analysing and describing an individual's personality. Its empirical foundation, high applicability, incorporation of the FFM, and comparable intention to Heymans' model, encourage its discussion in this paper. The profiler was developed in 2017 at the Lueneburg Institute for Corporative Learning (LINC) in Germany. A team of three (business) psychologists and a personnel manager developed the inventory, which became the fastest growing applied personality test in Germany (*LINC Personality Profiler*, 2021; Puppatz & Franke, 2020). The profiler measures personality through self-questionnaires on three major components; character, motives and competencies. Importantly, the longest element,

character, is measured through the application of the FFM and thus, refers to a person's trait expressions. Motives, however, capture a person's drives towards their individual goals while competencies refer to a person's abilities in problem-solving domains.

In essence, the LPP aims to improve individual knowledge about own personality, focusing on characteristics and personal strengths and weaknesses. Its target is to enhance insights into own (occupational) potential. More precisely, it supports personnel development and selection and guides professional counselling and coaching.

The LPP and Heymans' personality classification indicate a common purpose. They both intend to identify the most suitable occupation fitting a person's potential. An improved understanding of own strengths and constraints gained through personality testing can play an essential role in this. In order to perform a comparison of the two model's scientific basis and their intention, a historical contextualization is needed. Almost a century separates the introduction of the two personality typologies, being introduced in 1929 and 2017, respectively. Back in the early 20th century, the time Heymans introduced his temperamental types, people's occupations were often still determined by external factors like heredity, class, or job feasibility (Heymans, 1909). Hence, a person was more likely than nowadays to exert their parent's job or simply decide for the most offering profession. As a result, people were rather assimilating to their occupation instead of determining the job suiting their abilities best (Heymans, 1909). Heymans criticized this, arguing that there should be "überall der richtige Mann an der richtigen Stelle (...)" (Heymans, 1909, p.33), meaning the right person ought to be at the most fitting occupational position. This, according to Heymans and modern standards, contributes to effectiveness and satisfaction in vocational settings. Importantly, as indicated previously, occupational fulfilment is indeed associated with an increased overall life satisfaction (Judge & Watanabe, 1993; Weziak-Bialowolska et al., 2020).

Regarding Heymans' typology, the most relevant primary sources considered are his speech *'Das künftige Jahrhundert der Psychologie'* (Heymans, 1909) signifying 'The prospective century of psychology' and his handbook *'Einführung in die Spezielle Psychologie'* (Heymans, 1932) which translates into 'Introduction into Differential Psychology'. The former provides critical insights into Heymans' reasoning behind his taxonomy. Moreover, in his speech Heymans' shares his view on prospective personality inventories like the LPP (Heymans, 1909). The latter primary source *'Introduction to Differential Psychology'* gives a profound explanation of Heymans' personality classification with a focus on the distinct temperamental types.

Furthermore, Van der Werff (1985) made a meaningful contribution through investigating Heymans' temperamental dimensions in modern personality research. He validates that Heymans' empirical approach and his focus on fundamental types are precursing modern personality trait research. Building upon that, Van der Werff and Verster (1987) recomputed the 'hereditary-inquiry' data that Heymans used in the 20th century to examine his three temperamental dimensions. Indeed, the researchers globally replicated the three factors, although, the primary-secondary functioning component was less straightforward than the others. This can be regarded as another affirmation of Heymans' model as validated and qualified enough to be compared to a modern one. Additionally, the authors (Van der Werff & Verster, 1987) compared Heymans' cube to Eysenck's system which also encompasses three factors - extraversion, neuroticism and psychoticism dimensions - identifying some content differences besides the overall resemblance.

Differently to the first personality typology, literature concerning the latter require more content explanation. The LPP is divided into three segments, one of them being character. Since this part is measured through the scientifically and empirically validated FFM, an extensive body of research exists concerning the issue. Hofstee, de Raad and

Goldberg (1992) managed to build the bridge between the Big Five model and Heymans' personality dimensions. The foundation of the FFM is pointed out, however, the author proposes an extended version, the Abridged Big Five Circumplex Model. The paper exemplifies the usefulness of the Big Five traits, particularly when modified with the most recent findings of modern differential psychology.

Yet, the dominance of the Big Five model is well-grounded as a “scientifically acceptable medium to describe personality traits” (de Raad & Mlačić, 2015) and has been replicated extensively by empirical papers. However, the authors ascertained that differently from the original FFM, a majority of trait variables have loadings on two factors, meaning that a person may not merely score on one end of a dimension. For example, an individual may score high on extraversion *and* middle or low on introversion. This acknowledges the partial interdependency of the trait dimensions instead of separating them hierarchically. This is reflected in the LPP as well, which recognizes that loadings on two factors within one trait are plausible. The detailed approach to personality conceptualization is illustrated in the LPP Manual (Puppatz & Franke, 2020) which provides the basis for its thorough explanation in this paper.

The following thesis builds upon the previous findings on Heymans' typology and the modern profiler. It presents an outline of Heymans' cube by explaining the three major components leading to his typology as well as the distinct types they result in. Moreover, I will illustrate the conceptualization of the LPP through a close description of its elements analysing an individual's personality. Afterwards, a comparison is performed, focusing on the model's scientific foundation and their different natures of personality classification. Lastly, the taxonomies' common intention and their relevance is covered.

Both personality indexes are analysed with a primary focus on their content, intention, and potential application. However, validity and reliability scores of sub-scales are *not* a major concern of this thesis. The goal is to provide sufficient method-related information to enable a valid, comprehensible comparison. The illustration and comparison of the models is based on historical, qualitative methods. This method will serve to investigate the matter of how Heymans' personality typology compares to the LPP.

Overview of Heymans' Personality Typology

Explanation of Heymans' Cube

Heymans' profound research on a holistic description of individual differences in personality gave rise to the idea that differences in individual '*temperament*' can be classified systematically.

Since his cube is analysed meticulously in the following, clarification on Heymans' terminology and the one used in the LPP is required beforehand. Heymans refers to *temperament* when describing individual differences in characteristics and traits, as he does through his temperamental dimensions. Thus, a person's set of traits, and their pronunciation, result in individual reactions to external influences, relative to the strength of these influences (Heymans, 1932, p.131). This describes what Heymans refers to as temperaments (Heymans, 1932). However, Heymans' definition of temperament corresponds to the 'character' component in the LPP. In line with that, it appears more common to date to refer to Heymans' term of temperament as a person's character.

In fact, Heymans does integrate the term '*character*' in his handbook on differential psychology (Heymans, 1932), as well. Though, he defines character as the totality of motivations that direct a person towards their aspirations, taking into account these motives'

relative strength (Heymans, 1932). This definition is encountered in the LPP as well.

However, Heymans' character is what the LPP terms 'motives'. Once again, nowadays the label 'motives' is more commonly used to refer to a person's inner drives towards their life aims, yet, it is congruent with Heymans' definition of character.

Accordingly, Heymans uses the term temperament corresponding to the LPP's character, while his definition of character aligns to some extent with the use of motives in the LPP. This difference is noteworthy to retain in mind during the analysis of the two models.

Despite these terminological differences, Heymans' personality taxonomy reflects European ideas of personality psychology, and he was indeed the first person to *combine* the three dimensions used (Van der Werff & Verster, 1987). Theoretical considerations made him put forward the following three components. Heymans defines individual temperament through his dimensions activity, susceptibility to emotions and secondary functioning, or aftereffects.

Firstly, the activity dimension contrasts a person's high individual energy level and inner drive to work against inactivity (Van der Werff, 1985). Thus, the frequency and strength of an individual's activeness are captured relative to the motives present (Heymans, 1932). The classification as an active type requires a high inner urge to act whereas inactive types present more passive, less acted-out behaviours. Further, the emotion cluster distinguishes individuals being higher susceptible to emotions from those being rather unaffected by their feelings and thus, more resistant to impressions of their surrounding (Heymans 1932, p.131; Van der Werff, 1985). The prevalence and strengths of emotions is weighted in relation to the circumstances (Heymans, 1932). Lastly, the aftereffects dimension concerns primary and secondary functioning.

Briefly, Heymans defines the last dimension as the level of endurance with which ideas remain within somebody's consciousness relative to their importance (Heymans, 1932). This dimension is based on Otto Groß (Heymans, 1932). It is less straightforward in its reflection in modern personality classification, hence, it is further explained.

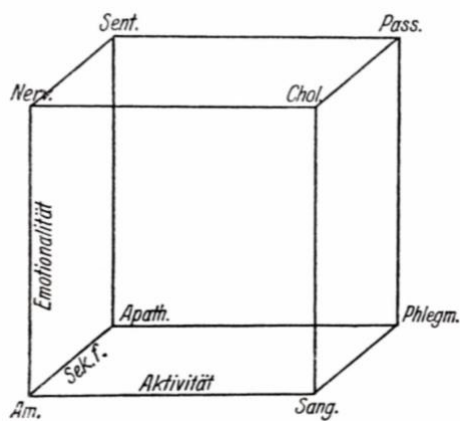
The aftereffects or "Nachwirkung" (Heymans, 1932, p.17, p.20) are conceptualized as the length and intensity with which former impressions are stored within an individual's consciousness in relation to their relative strength. In other words, the degree to which previous experiences influence a person's current behaviour and their response to the present situation (Heymans, 1932). This gives rise to classifying people as either acting highly in-the-moment, termed 'Augenblicksmenschen' (Heymans, 1932, p.19), or as rather 'grounded natures' behaving more contemplative and deliberate. The former, *primary functioning* people, respond to stimuli in line with situational information, since momentary experiences are strongly represented in their consciousness. They present instant reactions without long contemplation and are thus, susceptible to quick attitudinal changes in response to environmental impressions (Heymans, 1932). The latter in contrast, are classified as *secondary functioning* individuals who are characterized by more thoughtful reactions. Experiences are present in the mind more long-term, making secondary functioning persons act in line with former convictions and experiences instead of momentary impressions. However, this should not get entangled with high emotionality. More explicitly, in secondary functioning individuals, not merely emotions remain long-term within consciousness but also *non-emotional* impressions that play a role in attitude formation.

To support the comprehension of the three dimensions, they are captured in Heymans' cubic figure. Through embedding the eight temperamental types in a three-dimensional figure, his taxonomy becomes more accessible and intuitive. The types are arranged in a schematic manner as visible in figure 1. In practice, most individuals are not found on the extreme ends

of the cube, but rather close to its centre (Heymans, 1932, pp.128). The cube's visual understanding can be facilitated, knowing that high emotionality is depicted towards the above, activity towards the right and high levels of secondary functioning more towards the back of the cube.

Figure 1.

Heymans' cube depicting eight temperamental types (Heymans, 1932, p.133).



The Temperamental Types

The three central elements activity, emotionality and secondary functioning represent the foundation for an individual's temperamental type. As illustrated in table 1, personal outcomes on the three dimensions – based on higher levels of presence or absence of a central trait – yield to a specific personality type. A plus indicates a high manifestation of a dimension, thus, high susceptibility to emotions, high activity or high levels of secondary functioning. On the contrary, a minus stands for a low incidence of the responding fundamental dimension. The distinct type's natures will be elucidated in the following. While reading the descriptions of the temperamental types, table 1 can be taken into consideration as a tabular illustration of the explanations.

Table 1.

Illustration of potential manifestations on Heymans' three dimensions, resulting in eight temperamental types (Van der Werff, 1985).

HEYMANS' CUBE			
Emotion	Activity	After-effects	Type name
+	+	+	Passionate
+	+	-	Choleric
+	-	+	Sentimental
+	-	-	Nervous
-	+	+	Phlegmatic
-	+	-	Sanguine
-	-	+	Apathetic
-	-	-	Amorphous

Heymans' eight personality types are the results of individual expressiveness of the three dimensions. To provide a clear insight into the meaning and implication of belonging to a certain type, I will elaborate on three of them in detail. The types below were selected to provide a representative outline. Hence, each of the extremes of the three dimensions is included.

Emotional, Non-Active, Primary Functioning: The Nervous

The *nervous* personality type is characterized by low levels of activity, high emotionality and strong primary functioning (Heymans, 1932). Individuals falling into this category depict intense emotions that tend to be inconsistent, meaning they can be emotionally irritated easily. This results in nervous people's tendency to react to their environment hyper-sensitively. In practice, this holds true for highly negative emotions like sadness but can similarly result in very positive feelings of passion, for instance. The emotional response can be triggered quickly by the person's surrounding and frequently puts the nervous type out of balance.

However, since strong emotionality appears in combination with high primary functioning, the balance may also be restored expeditiously. The high levels of primary

functioning aggravate but also restore the quick changes in emotional responses since the buffering aspect of high secondary functioning is *not* present. Thus, the incoherent display of emotions is intensified. Still, the stark feelings often stay within the consciousness without necessarily leading to actions, due to the low levels of activity. Similarly, high emotionality and primary functioning heighten the nervous type's awareness of physical illness, making them susceptible to bodily complaints and hypochondria (Heymans, 1932, p.137). In line with that, their psyche is characterized by inconsistent emotional states and a higher susceptibility to mental disorders, which holds true for the sentimental type, as well (Heymans, 1932, p.146). The nervous type's low activity may add to the higher prevalence of psychological conditions. Particularly, since low levels of activity in this constellation are associated with inward coping and deficient search for external support.

Nervous individuals are easily affected by their social environment, their high distractibility makes them prone to alternate from positive mental states to more negative conditions. This results in their changes from high (vocational) involvement at times of pleasant mental well-being to low effort in phases of negative agitation. High impulsiveness, emotional inconsistency and indecisiveness are represented in the nervous' tendency to change study subject or occupation repeatedly. Altogether, this results in inconsistent work ethics. Nervous temperament's work-drive may vary from being highly passionate and involved, to very low levels of occupational motivation and effort.

Non-Emotional, Active, Secondary Functioning: The Phlegmatic

The non-emotional, active temperamental types - the sanguinic and the phlegmatic – virtually depict the counterpart to the nervous type. Particularly, since the *phlegmatic* type is additionally secondary functioning, it contradicts the nervous one on all three dimensions.

To begin with, phlegmatics are characterized by low emotionality. Therefore, their feelings do not guide their daily decisions and activities as extensively. Combined with the phlegmatic's high levels of activity, this implies that their willpower is focused on carrying out actions in a controlled and motivated manner. Hence, this type is of rational and active nature, without being substantially hampered or driven by emotions. As a consequence, phlegmatic individuals are hardly affected intensely by external impressions. The type stands out by this low responsiveness to emotions in regard to both, themselves and other people. This can make them appear rather cold and distant to their environment.

However, the group is also calm and stable, often demonstrating enduring commitment to an activity. Carrying out uniform, repetitive (occupational) tasks is usually not impeding phlegmatics, since they find fulfilment in achieving or working towards their goals. In essence, they work consistently and are steadily motivated. Besides, the strong secondary functioning contributes to the stability of plans and goals, since new external stimuli do not easily change thoroughly formed impressions. This gives rise to general patience and conscientiousness in phlegmatics.

Moreover, phlegmatics are gifted with intellect, which is evident in mathematical abilities, well-structured comprehension and accurate memory functions (Heymans, 1932, pp.173). Moreover, they score high in (perceived) credibility and consistency between thinking and acting. Here, it may be remarked that in line with their contrasting descriptions, the nervous and the phlegmatic can be found on opposite ends of the illustration of the cube.

Lastly, in regard to work ethics, people in this group tend to adhere to principles and consistently work towards goals. Still, they depict slow, contemplative attitude formations and long commitment to opinions once generated. In sum, this leads them to work in a systematic, persistent and committed manner.

Non-Emotional, Non-Active, Primary Functioning: The Amorphous

Identically to the phlegmatic type, the amorphous cluster is marked by low levels of emotionality. Outcomes on the other two dimensions, however, differ from the group discussed above. Namely, amorphous people demonstrate low activity and a lack of secondary functioning. Briefly framed, they present low manifestation of each of the three temperamental dimensions. This generally bears rather negative implications in comparison to the other temperamental types in regard to daily functioning and work ethics. However, the incidence of amorphous and apathic types is considerably low compared to the other type clusters (Heymans, 1932, p.133, p.203).

Considering the low expressiveness on each of the three dimensions, Heymans' described this type as a "Product ihrer Umgebung", hence, as being a product of their surroundings. Further, the type's nature is depicted as plastic or formable material (Heymans, 1932, p.204). This implies that amorphous individuals possess superficial, easily changeable attitudes rather than thoroughly formed convictions. Therefore, their temperamental nature is highly adjustable and susceptible to external influences due to the absence of a steady individual personality (Heymans, 1932).

Additionally, similarly to the nervous type, the amorphous one depicts below-average results in intellectual abilities. They have an overly restricted task comprehension and a short attention span. This is accompanied by their low emotionality, giving rise to a general indifference about issues that may commonly evoke people's interest.

On the whole, these characteristics have several implications for vocational settings. Firstly, the amorphous type's low emotionality does not merely lead to poor empathy, but also indicates their ability to stay ahead of things in difficult work-related situations. However, their low activity and emotionality resulting in a universal disinterest bring about major levels

of idleness at the workplace. Still, their character plasticity enables them to customize rapidly in the face of new occupational settings. Still, this plasticity – above described as the lack of individual personality – is a downside too, since it makes amorphous type more susceptible to dubious influences due to lack of thorough reflection.

Illustration of the LINC Personality Profiler (LPP)

Heymans' personality classification of 1929 was an attempt to differentiate individual personalities in a holistic and objective manner. At present, differential psychology is still concerned with the adequate measurement of personality (Hofstee, de Raad & Goldberg, 1992). In the following, a highly scientific and modern approach to personality classification will be introduced, which is widely applied in recent German personnel psychology (*LINC Personality Profiler*, 2021; Puppatz & Franke, 2020).

The LPP, developed in 2017, is an instrument for individual personality analysis and description, providing scientific insight into an individual's personality. In practice, it is an applied personality test, assisting personnel selection and team- and organization development (Puppatz & Franke, 2020). Its development is based on scientific evidence from personality psychology, the main foundation being the Big Five personality traits. Through the combined measurement of three core components of personality; character, skills and motives, the LPP attempts to achieve a more wholesome approach to personality. The three elements are incorporated into one inventory, depicting a holistic, scientifically based illustration of an individual's personality.

Character Component

Character represents the central element of the LPP and is determined by the Big Five personality traits. The FFM is utilized due to the strong scientific confirmation of its validity

and reliability by numerous meta-analyses (Benet-Martínez & John, 1998; de Raad & Mlačić, 2015; Vedel, 2016). Hence, the five central character traits used are introversion and extraversion, conscientiousness and flexibility, openness and consistency, agreeableness and competitiveness and lastly, sensitivity and emotional stability. These central characteristics or '*super-factors*' are depicted on bipolar dimensional axes (Puppatz & Franke, 2020). Further, the central characteristics each consist of six subscales referred to as '*facets*'. Thus, a total of 30 subscales is used to measure character. The underlying facets of the central traits are listed in all detail in Appendix A. Hence, the facets collectively result in a personal tendency on the corresponding super-factor.

Here, a clear distinction is visible by the manner of character portrayal in the LPP in comparison to personality typologies that categorize people into types (Furnham, 1996). The hierarchical structure of character outcomes on the five central traits facets allows for a precise insight into an individual's character tendencies. Besides, in contrast to the conventional FFM, the LPP entails two major modifications.

Firstly, it makes use of a *bipolar* measure of the central traits. In other words, there is not solely a score indicated on *one* end of a dimension, which would lead to a one-sided trait tendency. Rather, the LPP measures the core traits in a way that yields to an individual score on *both* poles. For example, outcomes on levels of agreeableness *and* competitiveness are captured. This way, the LPP acknowledges that the scores of both poles within one dimension are correlated, yet, not mutually exclusive.

Further, the LPP replaces technical terms with a biased or negative connotation by more neutral ones. The intention behind this alteration is to remove stigmatizing connotations accompanying specific labels. This applies to the term 'neuroticism' for instance, which is

referred to as 'sensitivity' and explained as 'susceptibility to emotions' in the personality profiler.

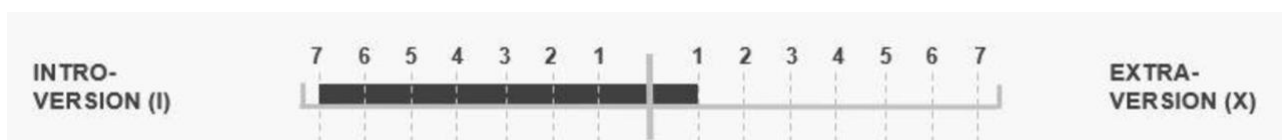
Measurement and Operationalization of Character

The methods used aim at enhancing the section's reliability and validity scores, which are accordingly high (Puppatz & Franke, 2020). To determine scores on the character items an ipsative, forced-choice, response format is used. In this questionnaire format, individuals are presented with five items which they rank according to the statements' estimated applicability to their own character. The ipsative format potentially heightens economic validity (Baron, 1996; Brown & Maydeu-Olivares, 2013) and decreased susceptibility to social desirability (Christiansen, Burns & Montgomery, 2005; He et al., 2014)

Results on the core dimensions and their facets are communicated through bar graphs. These bars entail *both* poles of a dimension, ranging from seven (maximum) to zero (minimum) *each*. Figure 2 demonstrates this graphically. As visible in figure 2, people do indeed score on both ends of the dimension, displaying a high score on introversion as well as a low score - low but not zero - on extraversion.

Figure 2.

Exemplified bar graph result for the introversion-extraversion dimension used in character measurement, LPP (Puppatz & Franke, 2020).



Altogether, character is measured based on the FFM, including six sub-facets per trait. Both, central traits and sub-facets are operationalized forced-choice questions. The LPP

differs from conventional personality tests in particular by the bipolarity of the trait dimensions.

Investigation of Motives

In addition to the five central personality traits, nine fundamental motives are incorporated in the inventory. Whereas trait measures are used to represent a person's character, motives are included to understand the factors that drive a person towards their goals. Therefore, as remarked previously, the motive component of the LPP corresponds to what Heymans defines as 'character'. The results on motives provide answers concerning specific motivations that stimulate an individual.

The measurement of motives in the LPP has its foundation on a well-established model in differential psychology developed by McClelland based on Murray's and Cattell's fundamental needs and motives (McClelland, 1987, pp.46). The model comprises three basic motives; the desire for power and influence, the need to belong, and the motive of achievement. In association with McClelland's three fundamental needs, the LPP covers nine more specific motives. They serve as an addition to the five personality traits which account for the main part of the profiler.

Namely, the motives influence, independence and safety are used, responding to McClelland's motivation for power and influence. Furthermore, the needs for relationships, value and sense, and lifestyle are linked to the need to belong. Lastly, McClelland's drive for achievement is depicted by the motive of performance, personal growth and creativity in the LPP (Puppatz & Franke, 2020). Figure 3 provides an example outcome on these nine motives measured. A more detailed outline is encountered in appendix B, which provides an outline of the motives' accordance with McClelland's central needs.

Measurement and Operationalization of Motives

The nine motives are measured through five items each. Yet, the method used resembles the one in the first section of the personality test. The reliability for the motive section is middle to high (Puppatz & Franke, 2020). Outcome scores on the motive section are illustrated in a seven-step graphic, exemplified in Figure 3. The graphs are portrayed as pie charts to facilitate visual comprehension of the results. The circle chart includes the nine sub-motives. Each is displayed by another, smaller circle indicating the expressiveness on the specific motive.

Figure 3.

Circle chart of an individual outcome on the motive component (Puppatz & Franke, 2020).



Overall, the motives are measured by individual scores on nine dimensions. These dimensions can be divided into three motive clusters corresponding to McClelland's three fundamental motivational needs. The results are presented to the test taker in circle charts.

Determination of Competencies

In addition to character and motives, the LPP determines individual competencies. This last competency component encompasses personal abilities, skills and knowledge. These inform about individual problem-solving capacities on various domains. The abilities included are either of theoretical usefulness or comprise practical problem-solving skills closely related

to daily life. Consequently, the skills range from analytical capacities to decision-making and planning abilities. Thus, the competency section is an addition that contributes to the holistic depiction of personality.

There is no clear, conclusive scientific agreement on a widely accepted model of competencies (Puppatz & Franke, 2020). Therefore, the scientific underpinning of this section is less straightforward. Still, the LPP entails 25 competencies that were selected based on empirical evidence and the four developers' experience in practice (Anderson, Salgado & Hülshager, 2010; Puppatz & Franke, 2020).

Measurement and Operationalization of Skills

To measure individual competencies, the test taker receives one question on each of the 25 skills selected. The individual rates their abilities on a five-point Likert-scale, ranging from very low to extremely high applicability.

Appendix C encompasses the 25 skills measured and the corresponding empirical underpinning for each. The results of the skills component are communicated through descriptions that are accompanied by figures, as illustrated in Figure 4.

Figure 4.

An example result on the competency component 'networking' (Puppatz & Franke, 2020).



Figure 4 demonstrates that *two* indications are provided in each result. Firstly, the person's own estimate of the skill expression is presented. In Figure 4, this is illustrated by the small person indicating a 'middle' score ('mäßig') on the competency networking. Further,

the pin, stating 'low' manifestation (*'gering'*) indicates the scientific estimate of the skill. This second score is based on the person's outcomes on the Big Five. Therefore, this serves as a direct comparison between self-perception and trait outcomes on the measurement of character. Further, it demonstrates that the competence component is based on the LPP's assumption that individual suitedness for a certain skill is related to their character.

In sum, 25 theoretical and practical competencies are measured through one item each on an ipsative Likert-scale. The results are presented through two outcome indications within one graph. This may give insight into self-perception and its agreement with skill manifestation indicated by character outcomes.

Comparison of Benefits and Drawbacks

Following the explanation of the two personality classifiers, their structure, measurement, and potential implications are more evident. This comprehension is required to take a step further and contrast the two personality enquiries. Thus, in the following, the two model's strengths and weaknesses will be discussed. Hence, the comparison concerns the model's scientific foundation and their manner of personality description, thus, how they present individual personality.

Scientific Foundation

When comparing two models with a time discrepancy as present in Heymans' cube and the LPP, their scientific basis needs to be examined further. It could be suspected that Heymans' classification lacks sufficient scientific foundation to be considered of value nowadays. However, this is *not* entirely the case. When developing his temperamental dimensions, Heymans' approach was indeed highly scientific for his time.

Firstly, his critical thinking and reflection are striking. Heymans' emphasized that his classification may not be the most capable or correct one and that it may need to be extended or even replaced by more progressive models at some point (Heymans, 1932, p.130). Further, he argues that inventories should not be considered correct or wrong. Instead, Heymans states the necessity of "Brauchbarkeit prüfen" (Heymans, 1932, pp.130), meaning personality systems ought to be evaluated based on their degree of usefulness. Thus, the empirical data collected provides the crucial information on the system's utility. Consequently, in regard to his own typology, data is supportive for his theory if it meets the following criteria. The data must indicate types that share typical characteristics within one cluster, that deviate from the norm and are significantly different from the other types he proposed. Additionally, Heymans acknowledged that distinct methods must derive to comparable results (Heymans 1932). Consistently, he grounded his eight type's meaning and labelling on former literature (Heymans, 1932). Ideally, the outcomes should replicate findings of previous findings (Heymans, 1932, p.131).

These aspects of deviation from the norm, falsifiability, reliability and practical significance are measurement standards nowadays. However, they demonstrate Heymans' highly progressive, evidence-based approach to developing his temperamental dimensions in 1929. Therefore, Heymans' scientific standards demonstrate the present value of his personality taxonomy, especially taking into account the time of the system's development.

Moreover, the access to calculation instruments and programs was limited compared to the current tool availability. Still, Heymans and Wiersma systematically collected an immense amount of data to test the personality dimensions (Heymans, 1932). This data was mainly acquired through inquiries, biographical studies and minor laboratory experiments. It finally comprised 2523 personality descriptions gathered from family doctors and 110 analyses of biographies of popular personalities (Heymans, 1932; Van der Werff, 1985).

Hence, Heymans based his dimensions on empirical evidence, which was exceptional in this time (Van der Werff, 1985). In line with that, Heymans himself recognized that the clear differences in types in his data can be partially explained by the extensive size of his data set. In practice, people of a certain category may not be at the extreme end, rather, they possess more type-characteristic responses on average. Even though, reality is a less extreme version of the classification, the system can be beneficial in supporting real-life decisions and predicting actions. In sum, Heymans' progressive approach is reflected in his critical scrutinizing of his own work and the scientific methods used to develop and examine his temperamental dimensions.

Critical thinking and scientific procedures are more standardized to date. Therefore, it is not unexpected that the LPP is built upon strong scientific, empirical evidence. To begin with, the character component is based on the FFM which is approved by a large body of empirical research (de Raad & Mlačić, 2015; Feher & Vernon, 2020). The FFM's scientific strength is even enhanced in the LPP, which uses it bi-dimensionally, instead of unipolar. Furthermore, the personality enquiry is expanded by two more components that measure competencies and motivation. All three components are measured through questionnaires with both, high validity and middle to high reliability scores (Puppatz & Franke, 2020).

Yet, a minor shortcoming is the unsatisfactory scientific basis of measurement of the last component, the competencies. This section comprises of a range of skills that were selected based on a couple of scientific findings and the four developer's vocational guidance experiences (Puppatz & Franke, 2020). Hence, the component's scientific foundation is less strong than the other two section's underpinning. Still, the outcomes are presented in relation to scores on the FFM, adding to its validity and comparing self-perception to trait outcomes. Also, the existing scientific evidence on competencies is simply not as conclusive as the one for character, for example. Thus, it appears that outcomes on the 25 skills selected should be

considered more carefully, however, they do have enough underpinning to be included as an additional component, adding to the holistic portrayal of personality.

Besides, equally to Heymans' typology, the LPP makes use of quantitative measurements. An individual's outcome score is always depicted in comparison to the average's result on the specific scale. Additionally, the profiler allows for a narrower comparison, for example through displaying a person's result in comparison to their company's mean score, hence, only including co-worker's outcomes. Hence, altogether, the scientific foundation of the LPP scales is strongest for the sections character and motives and less conclusive for the skill component. Yet, the overall empirical underpinning is well-established and highly thought-through.

Manner of Personality Classification

Since the two model's scientific foundation has been illustrated, the manner of result presentation in the LPP, and the personality description in the cube is of interest. How do the two systems compare in their manner of depicting an individual personality? Evidently, the models differ considerably in regard to this aspect.

As the terminology reveals, Heymans' typology classifies personalities into distinct 'temperamental' categories, thus, personality types. These eight types come along with a profound explanation of associated characteristics and tendencies. This manner of personality classification bears both, advantages and drawbacks.

The benefit of the cube's personality categories is its accessibility and straightforwardness which facilitates understanding (Heymans, 1909; Heymans, 1932, p.133). This allows for self-insight by identifying which type one may belong to, based on personal manifestations of the three dimensions. Thus, understanding which tendencies are characteristic and extract implications for the future becomes possible. Besides, the

categorization approach can be regarded a holistic depiction of personality. Particularly, since the character type a person resembles indicates general tendencies that are reflected across various life domains.

However, the manner of separating people into types is also a heavy drawback in itself. Classifying people into specific categories appears oversimplified and dated. It provides a clear distinction, emphasizing interpersonal differences, instead of comparing individual deviations to an average tendency. At present, it is less common for scientifically based personality tests to classify individuals into established personality clusters. In fact, the well-known Myers-Briggs Type Indicator (MBTI) is one of the exceptions, using 16 distinct types as a basis to describe personality. However, despite its persistent use, the MBTI has received extensive criticism, particularly concerning this almost arbitrary categorical feature (Furnham, 1996; King & Mason, 2020; McCrae & Costa, 1989). Scientific, accurate personality description shifts away from explaining personality through people's belonging to a certain type, invalidating this typological manner of personality tests like the MBTI (King & Mason, 2020).

Comparably, in Heymans' classification, people may be categorized as one of eight types based on their low or high manifestation of the three dimensions. In practice, a person that is highly active, rather not susceptible to emotions and low in secondary functioning would be a sanguinic type, for example. However, individuals may encounter themselves on the verge of one type or in-between two different types. That is why the belonging to a static type with certain tendencies appears to be a limited illustration of personality. Therefore, the manner of Heymans' categorization has a negative, constrained connotation, even though, the types themselves are empirically based and considerately chosen.

This constrictive typological categorization is not encountered in the LPP. The test's manner of personality classification bears positive implications. The test taker's outcome is an individual, holistic description of personality. A hierarchical structure of personality outcomes is provided, ranging from general characteristics to detailed sub-scale scores, instead of clearly differentiating people into distinct personality types. The individual can comprehend their scores on the subscales of the three dimensions in comparison to a mean value. This nature of comparing personal results to the average allows for an objective comparison to other's scores, as well as an improved comprehension of own tendencies. Thus, the personality presentation fosters an enhanced self-knowledge. Besides the comparative scores, results are supported by individual descriptions and graphics. Overall, the manner with which the LPP depicts personality is wholesome and comparative, adding to its usefulness and scientific affirmation.

Still, despite this clear strength, the LPP's nature of personality description that may outpace Heymans' categorical personality illustration, also bears a related drawback. Apparently, the manner of outcome presentation in the LPP is both, beneficial *and* adverse to some extent.

The comparative, informational personality portrayal in the LPP ensures high accuracy, but requires complex, long descriptions of individual results. This undermines the model's straightforwardness and thus, potentially complicates its wholesome comprehension. The test outcomes consist of a 30-page long report (Puppatz & Franke, 2020), which is informative and beneficial for outcome accuracy, however, also adds to its complexity. As a result, this may complicate the test taker's understanding of their results. Therefore, it can be argued that the beneficial manner of comparative and accurate personality classification in the LPP might get obstructed by the outcome's complexity. Even though, previously criticized, this shortcoming does not hold for Heymans' model. This is not merely explained by the

different application of Heymans' dimensions, but also due to the straightforward, more simplistic communication of his system through the cubic figure. The cube may appear oversimplistic at first glance, however, Heymans intended to make his system more accessible this way (Heymans, 1909). Differently, the LPP communicates individual personality less simplistic and more extensive, which potentially decreases accessibility.

Nevertheless, the LPP presents personality maximally precise through its more complex, but informational and comparative manner. Further, the developers aim to facilitate insight into personality outcomes through the use of descriptions and supportive graphics accompanying the raw results. Therefore, altogether, the LPP's manner of personality presentation, though complex, does foster a wholesome understanding of personality in a comparative manner.

Conclusion: Comparing common Intention

When comparing the models, their scientific basis and distinct manner of personality description were clarified. However, the *aim* of each taxonomy has been contoured, but not fully elucidated yet. Certain personal information obtained from either system bear implications for the individual and their environment. This objective of the models will be cleared up by illustrating their related intention.

Hence, to illuminate the question of how Heymans' temperamental dimensions and the LPP compare, I have identified their strengths and downsides. Moreover, I will shed light on the model's shared intention and reasoning. The first part enables the reader to evaluate the taxonomies. The latter section explains the meaning of the model's implications or outcomes. The taxonomy's common intention explains why understanding Heymans' system and taking the LPP is supportive across various life domains.

Heymans' Foreshadowing

As elucidated earlier, the manner of personality classification of the two personality models differs to some degree. Still, Heymans' model's background revealed his critical thinking and precision in data collection. Further, in his speech from 1909, his pioneering reflections on the future development of differential psychology became evident. Precisely, Heymans suggested that access to "Selbstkenntnis" (Heymans, 1909, p.29), hence, self-knowledge, will be possible to greater degrees and with more accurate, organized means to predict personality in the future. In line with that, he warns about outdated overgeneralizations and narrow types. Moreover, he suggests that, differently to former taxonomies, prospective personality measurements may be conducted in a *comparative* manner (Heymans, 1909, p.29). Accordingly, Heymans' prediction of potential future personality classifiers is surprisingly accurate. Recent personality models do indeed reflect the aspects of organized structure and comparative (instead of typological) manner. Arguably, naming the essential features of modern personality models, Heymans foreshadowed personality inventories like the LPP.

This background information on Heymans' pioneering view on prospective personality taxonomies fits together with the intention behind his own typology. It supports the notion that the reasoning for his personality model overlaps with the one behind modern personality classifiers.

Common Intention

Heymans' reflection on modern personality enquiries appears presumably ahead of his time. However, the underlying intention of his model is similarly encountered in modern personality profilers. This common intention may be a potential explanation for Heymans'

foreshadowing. Despite the difference in time of development, application, and manner of classification, the two personality models share a common reasoning which gives rise to their comparative outline in this paper.

In his speech in the early 20th century (Heymans, 1909), Heymans did not merely foreshadow modern personality models, but also clarified his system's aim and usefulness. Heymans' cube suggests potential personality groups that individuals may belong to. The distinct types indicate the tendency to possess certain trait characteristics, interests and abilities which enhance self-insight. The knowledge on personal tendencies potentially enhances self-insight. This in turn, is essential for individual life decisions, just as recognizing which vocation fits best with one's abilities. Identifying the most suitable profession may be crucial for the individual as well as for employers. At the time of Heyman's speech, this was not necessarily the standard, however, he foreshadowed the importance of this aim (Heymans, 1909). Hence, Heymans aimed to relieve effort and solve vocational matters through an increased insight into own capacities and limitations acquired through his scientifically based, empirical findings (Heymans, 1909, pp.31).

This intention of having the most suitable fit between person and job is heavily related to the aim of the LPP. The personality profiler provides personal information with the intention to help identify the position or career that fits a person's abilities best.

Hence, the LPP aims to perfection the job-person fit in a highly scientific and wholesome manner. Besides the vocation-person fit, the LPP intends to enhance the allocation of tasks in a team, improve conflict management, strengthen team collaboration and maximize overall workplace satisfaction (Puppatz & Franke, 2020). Altogether, these aims fit the intention of Heymans' classification system, even though, approximately one century has passed between the development of the two personality models.

Discussion: Relevance of the Models

Limitations

Qualitative Methods

Despite the finding of this common intention, it can be plausibly argued that this paper is limited by the use of qualitative, historical methods. Quantitative methods would have allowed to provide numerical results with potentially significant values. Particularly, due to the comparative nature of this paper, replication values and surveys investigating Heymans' typology may have been revealing.

However, eventually, the historical methods made it possible to disclose the common intention behind the two models. Their intention of systematically identifying the most suitable occupation for an individual is still of major concern nowadays. Taking into account that Heymans developed his typology in the early 20th century, this worthwhile aim and the disclosure of its parallels to modern personality models appears pioneering. Therefore, the use of historical, qualitative research is not merely a limiting aspect of this paper, but also a strength to the nature of its inference.

Consequently, though not necessarily disadvantageous, the methods used do bear implications for future research. Further research could build upon this, by investigating the similarities and differences of the classifiers through quantitative methods. This would allow for a distinct manner of comparison. It may enable researchers to investigate how individual expressiveness on the dimensions of Heymans' typology compare to outcomes on the components of the LPP.

Distinct Application

Despite the essential intentional overlap, the two model's contribution to the improved person-vocation fit is also unique in some regard. Even though, both models demonstrate potential to support vocational guidance, the manner in which they do so differs considerably. In other words, the LPP is a profiler that can be actively taken in form of a personality test, ending with result scores concerning individual personality. Thereby, this leaves the test respondent with an output on its three major personality-related components.

Differently, Heymans' personality system does not take the form of an applicable test in which individuals can take a questionnaire to receive individual outcomes. Yet, the temperamental dimensions allow for a broadened self-insight. More precisely, with an understanding of the cube, people may figure out the correspondence between own trait manifestations and the three dimensions of activity, emotionality and secondary functioning. This allows to pinpoint oneself at a position within the cube, receiving elementary information on personality properties typical for that type. Further, this knowledge can be deepened by familiarizing oneself with the precise description of the type, as exemplified in the analysis. This way, the personality-related tendencies and thus, self-insight may be gained without taking an enquiry that provides individualized test scores.

Therefore, the two personality classifiers have a distinct manner of potential application in practice. This may be regarded a major limitation of this paper, since it restricts the comparability of the models. Despite the fact that they can be contrasted in their scientific ground and manner of personality portrayal, contrasting their application is less straightforward, since Heymans' system cannot be applied the way the LPP can. However, Heymans' model has prognostic value and bears implications on personality-related trait tendencies. It can, furthermore, be argued that since vocational suitedness was not as much prioritized in the 20th century as it is to date in Western cultures, Heymans' contribution appears quite revolutionary in his time. Thus, even though his typology cannot be directly

administered to receive test scores like in the LPP, it does provide personality-related information of substantial relevance for vocational guidance. Hence, the personality model's distinct applicability restricts their comparison to some extent. However, the communication of personality-related information in both models bears essential indications for career prospects, making their comparison worthwhile.

Inferences for Life Satisfaction

All in all, the aim of identifying the best fit between person and occupation is the aspect reflected in both personality models. Still, one might be wondering which further conclusions arise from this common intention for practice.

Indeed, Heymans himself pointed out the applied relevance of this fit. He explained how recognizing own characteristics, strengths and weaknesses is part of being 'in peace' with oneself (Heymans, 1909, p.33, p.51). In line, both models share the practical intention of increasing satisfaction with or at a person's job. The support in identifying the right vocation or perfecting a person's workplace environment enhances individual occupational satisfaction. This potential increase in well-being at work is highly relevant considering the amount of lifetime that is spent at the workplace. Furthermore, satisfaction with and at work considerably influences overall life-satisfaction (Weziak-Bialowolska et al., 2020). Considering that the two personality systems aim towards a perfected job-person-fit, they potentially increase general job satisfaction. Therefore, it appears that Heymans' model generated a pioneering foundation for this, whereas the LPP built upon former models, perfecting them according to modern standards. Ultimately, both personality models manage to provide an individual contribution to enhancing people's overall life satisfaction.

References

- Anderson, N., Salgado, J. F., & Hülsheger, U. R. (2010). Applicant Reactions in Selection: Comprehensive meta-analysis into reaction generalization versus situational specificity: Applicant Reactions Meta-Analysis. *International Journal of Selection and Assessment*, 18(3), 291–304.
<https://doi.org/10.1111/j.1468-2389.2010.00512.x>
- Baron, H. (1996). Strengths and limitations of ipsative measurement. *Journal of Occupational and Organizational Psychology*, 69(1), 49–56. <https://doi.org/10.1111/j.2044-8325.1996.tb00599.x>
- Benet-Martínez, V., & John, O. P. (1998). Los Cinco Grandes across cultures and ethnic groups: Multitrait-multimethod analyses of the Big Five in Spanish and English. *Journal of Personality and Social Psychology*, 75(3), 729–750. <https://doi.org/10.1037/0022-3514.75.3.729>
- Brown, A., & Maydeu-Olivares, A. (2013). How IRT can solve problems of ipsative data in forced-choice questionnaires. *Psychological Methods*, 18(1), 36–52. <https://doi.org/10.1037/a0030641>
- Christiansen, N. D., Burns, G. N., & Montgomery, G. E. (2005). Reconsidering forced-choice item formats for applicant personality assessment. *Human Performance*, 18(3), 267–307.
https://doi.org/10.1207/s15327043hup1803_4
- de Raad, B., & Mlačić, B. (2015). Big five factor model, theory and structure. *International Encyclopedia of the Social & Behavioral Sciences* (pp. 559–566). Elsevier.
- Feher, A., & Vernon, P. A. (2021). Looking beyond the Big Five: A selective review of alternatives to the Big Five model of personality. *Personality and Individual Differences*, 169(110002), 110002.
<https://doi.org/10.1016/j.paid.2020.110002>

- Furnham, A. (1996). The big five versus the big four: the relationship between the Myers-Briggs Type Indicator (MBTI) and NEO-PI five factor model of personality. *Personality and Individual Differences*, 21(2), 303–307. [https://doi.org/10.1016/0191-8869\(96\)00033-5](https://doi.org/10.1016/0191-8869(96)00033-5)
- He, J., Bartram, D., Inceoglu, I., & van de Vijver, F. J. R. (2014). Response styles and personality traits: A multilevel analysis. *Journal of Cross-Cultural Psychology*, 45(7), 1028–1045. <https://doi.org/10.1177/0022022114534773>
- Heymans, G. (1909). *Das künftige Jahrhundert der Psychologie*. Johann Ambrosius Barth Press.
- Heymans, G. (1932). *Einführung in die Spezielle Psychologie*. Johann Ambrosius Barth Press.
- Hofstee, W. K., de Raad, B., & Goldberg, L. R. (1992). Integration of the Big Five and circumplex approaches to trait structure. *Journal of Personality and Social Psychology*, 63(1), 146–163. <https://doi.org/10.1037/0022-3514.63.1.146>
- Judge, T. A., & Watanabe, S. (1993). Another look at the job satisfaction^life satisfaction relationship. *The Journal of Applied Psychology*, 78(6), 939–948. <https://doi.org/10.1037/0021-9010.78.6.939>
- King, S. P., & Mason, B. A. (2020). Myers-Briggs type indicator. *The Wiley Encyclopedia of Personality and Individual Differences* (pp. 315–319). Wiley. <https://doi.org/10.1002/9781119547167.ch123>
- LINC Personality Profiler*. (2021, August 4). LINC. Lueneburg Institute for Corporate Learning. <https://linc-institute.de/>
- McClelland, D. C. (1988). *Human Motivation*. Cambridge University Press.
- McCrae, R. R., & Costa, P. T., Jr. (1989). Reinterpreting the Myers-Briggs Type Indicator from the perspective of the five-factor model of personality. *Journal of Personality*, 57(1), 17–40. <https://doi.org/10.1111/j.1467-6494.1989.tb00759.x>

Morgeson, F. P., Campion, M. A., Dipboye, R. L., Hollenbeck, J. R., Murphy, K., & Schmitt, N. (2007).

Reconsidering the use of personality tests in personnel selection contexts. *Personnel Psychology*, 60(3), 683–729. <https://doi.org/10.1111/j.1744-6570.2007.00089.x>

Puppatz, M. & Franke, R. (2020). *Manual zum wissenschaftlichen Hintergrund*. LINC GmbH. <https://linc-institute.de/>

Tett, R. P., & Christiansen, N. D. (2007). Personality tests at The Crossroads: A response to morgeson, Campion, dipboye, Hollenbeck, Murphy, and Schmitt (2007). *Personnel Psychology*, 60(4), 967–993. <https://doi.org/10.1111/j.1744-6570.2007.00098.x>

Van der Werff, J. J. (1985). Heymans' temperamental dimensions in personality research. *Journal of Research in Personality*, 19(3), 279–287. [https://doi.org/10.1016/0092-6566\(85\)90019-4](https://doi.org/10.1016/0092-6566(85)90019-4)

Van der Werff, J. J., & Verster, J. (1987). Heymans' temperamental dimensions recomputed. *Personality and Individual Differences*, 8(2), 271–276. [https://doi.org/10.1016/0191-8869\(87\)90186-3](https://doi.org/10.1016/0191-8869(87)90186-3)

Vedel, A. (2016). Big Five personality group differences across academic majors: A systematic review. *Personality and Individual Differences*, 92, 1–10. <https://doi.org/10.1016/j.paid.2015.12.011>

Weziak-Bialowolska, D., Bialowolski, P., Sacco, P. L., VanderWeele, T. J., & McNeely, E. (2020). Well-being in life and well-being at work: Which comes first? Evidence from a longitudinal study. *Frontiers in Public Health*, 8, 103. <https://doi.org/10.3389/fpubh.2020.00103>

Appendices

Appendix A.

Bidimensionale Big Five Dimension	Facetten	Bidimensionale Big Five Dimension	
Introversion (I)	I1: Soziale Unabhängigkeit I2: Innenorientierung I3: Niedriges Dominanzbedürfnis I4: Gemäßigtes Aktivitätsniveau I5: Ruheorientierung I6: Gemäßigter Enthusiasmus	X1: Soziale Offenheit X2: Außenorientierung X3: Dominanz X4: Aktivitätsniveau X5: Erlebnisorientierung X6: Enthusiasmus	Extraversion (X)
Gewissenhaftigkeit (G)	G1: Kompetenzwahrnehmung (+) G2: Ordnungsorientierung G3: Prinzipienorientierung G4: Leistungsorientierung G5: Disziplinentorientierung G6: Kontrollorientierung	F1: Kompetenzwahrnehmung (-) F2: Niedrige Ordnungsorientierung F3: Flexible Lebensführung F4: Interessenorientierung F5: Entspantheit F6: Spontanität	Flexibilität (F)
Offenheit (O)	O1: Fantasie O2: Sinn für Ästhetik O3: Gefühlsorientierte Entscheidungsfindung O4: Handlungsinnovation O5: Konzeptionelle Innovation O6: Kritikorientierung	B1: Realitätsorientierung B2: Geringes Ästhetikbedürfnis B3: Faktenorientierte Entscheidungsfindung B4: Handlungskontinuität B5: Pragmatismus B6: Normorientierung	Beständigkeit (B)
Kooperation (K)	K1: Vertrauensorientierung K2: Freimütigkeit K3: Altruismus K4: Nachgiebigkeit K5: Bescheidenheit K6: Empathie	W1: Soziale Skepsis W2: Strategische Kommunikation W3: Selbstfürsorge W4: Geringe Nachgiebigkeit W5: Positive Selbstdarstellung W6: Soziale Rationalität	Wettbewerbsorientierung (W)
Sensibilität (S)	S1: Spannungsniveau (+) S2: Soziale Empfindsamkeit S3: Wechselhafte Stimmungslage S4: Gemäßigtes Selbstsicherheitsniveau S5: Impulsivität S6: Stresserleben	E1: Spannungsniveau (-) E2: Geringe Reizbarkeit E3: Stabilität der Stimmungslage E4: Soziale Selbstsicherheit E5: Impulskontrolle E6: Stressresistenz	Emotionale Stabilität (E)

Character elements. The Big Five Character traits (super-factors) and their sub-facets applied in the first component of the LPP. The superfactors' terminology translates as follows: introversion-extraversion, conscientiousness-flexibility, openness-consistency, agreeableness-competitiveness and sensibility-stability.

Appendix B.

Motiv im LPP	Motivklasse nach McClelland	Quellen
Beziehungsmotiv	Anschluss / Zugehörigkeit	Consiglio et al. (2016)
Wert- und Sinn-Motiv		Elizur (2001)
Lebensstilmotiv		Elizur, Borg, Hunt & Beck (1991)
Leistungsmotiv	Leistung / Erfolg	Furnham, Forde & Ferrari (1999)
Wachstumsmotiv		Kanning (2016)
Kreativitätsmotiv		McClelland (1987)
		Schwartz (1992)
Einflussmotiv	Einfluss / Kontrolle	Super (1970)
Unabhängigkeitsmotiv		Super & Nevill (1985)
Sicherheitsmotiv		Weiss, Dawis & Lofquist (1971)
		Wollak, Goodale, Wijting & Smith (1971)

Motives. Measured in the second section of the LPP. Illustration of their responsiveness to McClelland's needs and their scientific foundation.

Appendix C.

Kompetenzen im LPP	Literatur
Analysieren	Anderson, Hülshager & Salgado (2010)
Durchsetzungsvermögen	Baer & Oldham (2006)
Eigeninitiative	Barrick & Mount (1991)
Empathie	Barrick, Mount & Strauss (1993)
Entscheiden	Bartram (2005)
Führen	Batey, Furnham & Safiullina (2010)
Ganzheitliches Denken	Butrus & Witenberg (2013)
Innovationskompetenz	Consiglio, Alessandri, Borgogni & Piccolo (2013)
Interkulturelle Kompetenz	Edens, Rink & Smilde (2000)
Konfliktkompetenz	Furnham & Bachtiar (2008)
	Furnham & Coveney (1996)
	Furnham, Crump & Whelan (1997)
	George & Zhou (2001)
	Hammann, Phan & Bayrhuber (2008)
	Hammond, Neff, Farr, Schwall & Zhao (2011)
Konzentrationsvermögen	Harrison, Newman & Roth (2006)
Kreativität	Hornberg & Reiter-Palmon (2017)
Netzwerken	Howard & Howard (1995)
Planungskompetenz	Judge, Higgins, Thoresen & Barrick (1999)
Rationalität	Judge, Bono, Ilies & Gerhardt (2002)
Reflexionsvermögen	Kanning (2003)
Selbständiges Denken	Kanning (2014b)
Selbstdisziplin	Klages & Gensicke (2005)
Selbstfürsorge	Lang (2008)
Sicheres Auftreten	Madjar (2008)
Teamfähigkeit	McCrae & Costa (1987)
Überzeugungsvermögen	Merzbacher (2007)
Veränderungskompetenz	Moberg (2001)
Verantwortungsbewusstsein	Mourlane & Hollmann (2016)
Zielstrebigkeit	Nadkarni & Herrmann (2010)
	O'Neill & Allen (2011)
	Peterson, Smith, Martorana & Owens (2003)
	Potocnik & Anderson (2013)
	Rammstedt, Danner & Martin (2016)
	Reif (2012)
	Ridhi & Santosh (2016)
	Riemann & Allgöwer (1993)
	Robins, Fraley, Roberts & Trzesniewski (2001)
	Smólka & Szulawski (2011)
	Sung & Choi (2009)
	Uppal, Mishra & Vohra (2014)
	Zhang (2002)

The 25 competencies. The skills used in the LPP and their scientific underpinning.