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The driving force of action and the psychology of doing nothing

Streszczenie

Artykuł omawia psychologiczne czynniki determinujące siłę sprawczą działania, jak również siłę sprawczą nicnierobienia. Dyskusja związana jest z rolą zasobów osobistych (osobowości, rodzaju umysłu, stylu działania), indywidualnych strategii radzenia sobie z presją czasu (prokrastynacji, bezdecyzyjności), autonomicznego versus nieautonomicznego stylu kreowania rzeczywistości (pasji, bierności) i wyprzedzającego modelowania kapitału tożsamości poprzez wykorzystanie własnych przewag oraz proaktywność. W artykule siła sprawczą działania i nicnierobienia jest omawiana z psychologicznego punktu widzenia jako zjawisko wielowymiarowe. Po pierwsze, jako cecha osobowości, po drugie jako kontekstowo określone poszukiwanie wyjścia z sytuacji trudnej przez prokrastynację decyzyjną, po trzecie jako podmiotowe kreowanie energii programu działania (pasji, apatii), i na koniec jako podmiotowe stwarzanie przewag osobistych poprzez proaktywność. Artykuł zawiera także przegląd podstawowych rodzajów nieciągłości i typów osobowościowych z nimi związanych w rzeczywistości „3N” (nieciągłości, niestabilności, nieprzewidywalności). Pięcioma rodzajami nieciągłości są: 1 – nieciągłość miejsca, 2 – nieciągłość sytuacji, 3 – nieciągłość znaczeń i wartości, 4 – nieciągłość kontekstu, 5 – nieciągłość projektowa.

Słowa kluczowe

siła sprawczą, tożsamość dystrybuowana, poznanie dystrybuowane, prokrastynacja, nicnierobienie, proaktywność

Abstract

My article discusses the psychological factors determining the driving force of human activity as well as the driving force of doing nothing. The discussion is related to the personal resources characteristics (personality, the type of mind, operational style), personal coping strategies with the pressures of time (procrastination, indecisiveness), an autonomous vs. non-autonomous reality creating style (passion, passivity), and anticipatory identity capital modelling by capitalizing on one's own advantages and proactivity. The driving force of human activity and doing nothing presented in the article is discussed from a psychological perspective as a multidimensional phenomenon. Firstly, it is discussed as a preconditioned personality trait, secondly as a contextually determined search for exiting

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from a difficult situation by delaying a decision, thirdly as an agentural creation of energy program of action (passion, apathy), and at the end as an agentural production of the self-advantages through proactivity. My article also reviews basic types of discontinuity and personality types related to them. These five discontinuity types are: 1 – place discontinuity, 2 – situation discontinuity, 3 – meanings and values discontinuity, 4 – context discontinuity, 5 – projective discontinuity.

Keywords

driving force, distributed identity, distributed cognition, identity capital, procrastination, self-exploitation, psychology of doing nothing, proactivity

Agency and its limitations in a discontinuity

We live in times that are organized in a vastly different way than former eras in that our society is organized around information (Eriksen, 2001). A feature typical of the knowledge society is the information cult, discontinuousness of time and space, permanent change, blurred and quantified reality that sets the condition and direction for progress in a given moment (Eriksen, 2001; Bańka, J., 2014). New effectiveness contexts provoke finding new answers for questions that seem so obvious, like: how should a proper direction for business development look, from the view point of life sense in the new information reality? What makes some people keep their driving force and effective action in business, whilst others succumb to apathy and donothing when faced with the same situation? What actions aimed at business development in a knowledge economy make one’s life meaningful? Are there any specific criteria in a knowledge economy for an individual to meet to become effective in business? What are the personal responsibility limits for one’s fate in information society’s modern business reality?

From the dawn of the information age (Eriksen, 2001), civilizational progress in all areas accelerated so dramatically that it is now exponential in pace. It means an exponential growth in everything starting from information and goods and finishing with knowledge produced by post-industrial societies. The ever-changing world breaks any continuity forms, hence the state of discontinuousness becomes the new norm. It determines planning, action and human development. Discontinuousness as the new reality pushes the borders of guilt and individual responsibility for one’s fate, because it changes objective and subjective foundations of agency and efficiency of action in an ever-changing environment.

Constant discontinuousness conditions and rules for conducting business as an effect in exponential world development, shows symptoms such as: periodic employment change, certain occupations “dying”, relocating, which also involves changes in cultural anchors. All of these demand from people in general, but from businesspersons in particular, constant self-revision of one’s resources and knowledge, which in turn leads

to a constantly redefining one's driving force. This discontinuousness makes it so that life and business becomes a chain of events, in which the past, the present and the future do not form a coherent, linear structure. Feeling indefinite continuousness, or at least for longer periods in time and space, becomes impossible to maintain. Ripping reality into quantum events, time and space puts meanings on hold and makes it impossible to fulfill the same values in the same way. Objective meaning independent from an individual and stopping events, pose an often impenetrable wall for further development through continuousness. What once was a prized structure of values, from the moment of reaching that wall is called into question. The passing of any existing meaningful networks and formulating new ones creates an existential vacuum (V. Frankl, 1959), in which undertaking, directing and maintaining actions faces challenges that for many people are insurmountable (London, 2014).

A fast paced development in the knowledge economy shrinks the space for undertaking actions, which means that there is fewer and fewer fields for fulfilling ones vocation in the of work and art worlds. Competencies that are unfit for a given place, time and space become useless. When time accelerates, space for development shrinks because places in which individuals can exercise their current and potential passions are disappearing. A decline in driving force due to an increase in pace and quantification of living space on unrelated elements is not a lack of good will, but a result of objective changes that are beyond an individuals' direct influence.

In the digital era long-term is being replaced by short-term. Not long ago an opera singer was able to prepare his/her voice and acting according to the specific place he/she performed in, which was the opera stage. The Television now disrupts an opera play's time and space structure, creating a rift between different aspects of this art, which were previously integral. Limiting events time-wise in the modern world to short intervals shifts the way we look at ourselves in the world. We only see fragments of reality in a smaller format in short moments (Hicks, King, 2007). In quantified space-time facts are randomly distributed, they float in a meaning and decision-making vacuum (Bańka, J., 2014), because often their meaning is appointed based on a given moment through a positioning process called *stacking* in computer science (Eriksen, 2001). It is a process in virtual reality, which gives every entity the same importance and ranks them all as event number one. Ranking everything according to stacking rules makes it impossible to set any kind of development line, because it only shows that which is on top. The knowledge and world view of our information society lacks history and development, hence, making decisions impacting anything beyond the given moment becomes an extremely difficult task for an average person.

In the space-time that is torn apart into separate pieces, the basic quantum becomes the elusive moment, a rift in time, in which attainable actions are possible, although dif-

difficult to detect perceptively and sensuously. A world separated into moments in the information society, stacked a top each other only has its edges defined, so the beginnings and the ends of these moments does not have any sort of sequence. For example, our life decisions, be it about vocation, marriage or having children get stuck in a decision-making void, because the arguments for and against each path to take are equally internally coherent, which is why they stop being criteria for efficiency and validity actions.

Discontinuous knowledge in a knowledge society creates a necessity for repeating attempts at filling in the rifts between events and between meanings, through the help of specific truths, various forms of knowledge and ideas. For instance, the modern work notion as something opposite to free time is so much different from what it was perceived before, during capitalism that it forces individuals to assign these notions new personal meanings – not final but based on a given moment. The need to fill in these rifts in meanings and values in an ever-changing world has recently caused a revival of discussions about life's sense (Schlegel et al., 2009; Steger et al., 2009), as well as about issues concerning authentic identity (Johnson et al., 2004; Kernis, Goldman, 2004). Even though, not long ago, societies gave people, who realized themselves, foundations of universally shared values – religious and tradition-based – nowadays leave individuals alone when facing ultimate questions of good vs. evil or value vs. valuelessness (Anderson, 2004).

The main issue which stands before an individual in a knowledge society is not only about making the right decision at the right time, but also how to put together all the fragments that were shaped during isolated moments and events in space and time into a coherent biography. Even though momentary decisions and actions can carry on some meaning in isolation, when put together they might not form a cohesive whole, thus preventing identity integration in congruency and coherency (Sheldon, Kasser, 1995; Davadason, 2007). Lacking continuity in the system of meanings and life values is the main threat to both individual and group identities (Logel et al., 2009). Perceiving meanings and life values of is linked with developing a coherent sense of identity which, though starting during adolescence, continues throughout an individual's life (Steger et al., 2009).

Creating meanings, discovering values and forming a driving force for acts of life happens together with an individual's personal and social development. It is linked with developing one's identity, as well as life goals during every-day existential experiences (Derbis, 2007; Bańka, 2009a; Stillman et al., 2009). Where there is no universally accepted system of values, engaging in various activities unveils significant individual differences in the eudaimonic ability to discover and express meanings (Schlegel et al., 2009) as well as the hedonistic ability to enjoy life (Waterman et al., 2008). The fast pace of change in dividing one's life into pieces disrupts not only people's ability to cope with identity discontinuity threats (Matheson, Cole, 2004), but also the ability to show effi-

ciency and driving force when facing changes. Life's meaning as valued by work, science or business activity is simply feeling that our actions have meaning subjectively. It is subject to far-reaching deformations once role-models and mentors of specific life activities lose their importance (Breakwell, 1986; Devadason, 2007, Schanan, 2007). In knowledge societies, this leads to an even wider economical gap between people, which is directly linked to social exclusion (Blustein, 2006).

Distributed identity and distributed cognition as a related mechanism of driving force mastery

The first and foremost objective for psychology today in analyzing human behavior in the discontinued reality lies in determining who is better equipped, and why, to act in an ever-changing environment. A place as a sphere that surrounds an individual is what gives meaning and strength to his/her actions. Thanks to that sphere, the individual is who he/she is as a human being. According to this definition a place is the most important indicator of identity and simultaneously the most important environment for personalized activity. Moreover, a place in a discontinued reality is the first casualty as a basis for human activity. This phenomenon can be observed as a side-effect of globalism to which various localisms fall victim (Kowalik, 2015). Some people facing place discontinuity retain their driving force of activity and development but some lose the ability to set out goals for effective adjustment. Two opposite styles of reacting and finding meaning for the emptiness that appears between important life chapters (Frankl, 1959) can be distinguished for people coping with place discontinuity as an environment for important life activities. One such style is identity adjustment to meaning discontinuity in a negative adjustment cycle. The other style is adjustment to discontinuity of events and meanings in a positive adjustment cycle. In the knowledge society's information chaos some people have their plans interrupted in relation to the place in which they live. Through these interruptions they create mental states that prevent exploration and expressiveness.

The second goal of psychology as a science is to point out mental mechanisms that lead to functional or dysfunctional adjustment to environmental discontinuity. Two different approaches are presented by personality psychology and cognitive psychology. The first case is a pioneer model of personality by Glennes Breakwell (1986), which points out that every individual is motivated by the need to maintain one's identity continuity in time. Blocking this need fulfilment leads to the threatened identity syndrome as the main source of identity disorders and decreases the individual's action efficiency (Breakwell, 1986; Vignoles et al. 2006). Identity continuity as a universal need is the most important identity motive taking part in overcoming the dilemma – "Should I be

active and continue growing in the place I am now, or should I distribute my activity and development goals some place more fitting?" In this light, distributing life goal activities into places that ensure a larger driving force of activity is simultaneously a process of distributing multiple personalities (Markus and Cross, 1994) to possible life places.

The two basic identity adjustment ways to a situation of discontinuity proposed by Breakwell (1986, 1987) are reference continuity and congruence continuity. Reference continuity is mostly based on knowledge concerning a place's past and on experiences gathered during activities undergone in that place. Continuity of this sort mobilizes a driving force of activity in relation to a space-time known to an individual in past experiences. Identity and driving force of activity is built through self-esteem, self-efficacy and sense of belonging to or distinction from a place. Identity development and activity driving force happen naturally in a specific place and its most important final effect is place attachment (Twigger-Ross and Uzzel, 1996; Pollini, 2005; Lewicka and Bańka, 2008). A progressing place attachment in the process of possibility consumption integrates and roots an individual's identity in relation to individual and collective experiences in a given place.

In such identity continuity a past temporal orientation dominates as well as being closed to displacement. Identity and a model of activity rooted deeply in one place (Dewine-Wright, 1997) allows travelling through time rather than space. Identity continuity is a sense tied with place memory, whose roots encompass all sorts of events, objects, people and stories. A place offers a background and sense-giving context for a driving force of activity, by which comparing and distribution of images of self in different times is being undergone (Guiliani, 1991; Hill, 1996). Inspiration for activity has its source in these deep, concrete, and stable space-time roots that includes lasting lifestyle and self-efficacy role models.

Identity continuity through place reference is an important source of driving force activity under the condition that the place as an environment for an individual's development is stable. People with a future orientation prefer the congruence continuity model. It relies on maintaining one's identity structure through looking for matching possible living places with goals and values desired by an individual (Markus and Cross, 1994). Distributing identities constructed with the future in mind happens in relation with places that guarantee having a driving force of activity (Droseltis and Vignoles, 2010). Identity continuity through congruence pushes an individual to find a link with places that have a high potential for activity and finding optimal living places from the standpoint of prospective memory (McDaniel and Einstein, 2007). Reference continuity has a limited system identity adjustment to place, whereas in congruence continuity there is a flexible adjustment and identity distribution to various places of activities valued by an individual.

Two identity distribution ways in relation to life environment and goal activities are identity dislocation and relocation (Dixon and Durrheim, 2004). Dislocation as a change in relation between space-time and identity structure manifests itself in a disintegrated homogenous place construct and self image (Dixon and Durrheim, 2004). It is being aware that the surrounding as a current place of life ceases to be an anchor for an individual's sense of being who he/she is and wants to be. Time fragments, space, and identity can be freely adjusted in various combinations. The variably attached function of time, space and identity fragments is an impulse for identity redistribution. This way a notion emerges that maintaining a relation with a place is dysfunctional in its goals and activity efficiency. Identity structure disintegration of in relation to place structure and the following dislocation of identity can happen independently from an individuals' intentions. In other words, identity dislocation does not have to be a subjective decision but can also be a mindless detachment of place identity from its structure (Dixon and Durrheim, 2000). This way place identity in an affective and sentimental dimension can keep on existing internally within an individual, but it disappears as a physical structure in possibly realizing programmed activities in prospective memory.

Opposite to dislocation is identity relocation (Hormuth, 1990). This process continues desired and adjusted activity patterns to self structures but in a different space-time of life, meaning in a different place. Relocation distributes identity through place relocation to a different environment that provides a better offer for activity and pursuit of life goals that cannot be fulfilled in the current place. Identity relocation as a place for identity and desired activity structures distribution begins at the same time to construct new emotional and cognitive bonds with the place of relocation (Manzo, 2003; Jorgensen and Stedman, 2006). Identity relocations that include place relocation realize one's autonomy through escaping, by social duty, to realizable efficient activity models. Identity relocations are a form of cultural self-estrangement and the refusal to reify culturally determined activity models in a system of internal cognitive representations.

Cognitive psychology, when describing identity distribution as a possible mechanism for controlling driving force activity through environmental mastery in discontinuation, does not in fact explain what mental mechanisms trigger such a process. The theory that most precisely explains both the driving force sources of activity as well as the reasons for identity distribution in place discontinuity is the theory of distributed cognition. Distributed cognition psychology deals with cognitive activity related to distribution, in both space and time, of creations in a human mind with external environment artefacts as well as with individual and collective thinking patterns (Zhang and Patel 2006). According to this idea, intelligent human behaviors come from interacting with: external cognitive artefacts, other people, other people's activities taking place in spe-

cific situations, physically determined barriers and supports, and cultural and social contexts for functioning. The term distributed cognition is defined in various ways but in most general terms it is the distribution of knowledge and information between internal, that is, psychological and external, that is, environmental cognitive representations (Zhang and Patel, 2006). In distributed cognition the most characteristic are two types: 1 – distributed cognition between an individual mind and external artefacts; 2 – between an individual mind and other individual minds. The vast wealth of information with which every person has to cope requires information distribution between internal and external environments. A particular example are affordances (Gibson, 1979).

According to J. J. Gibson (1979) affordances are potential possibilities present in an environment, important for human survival. They are unchanging offers and qualities of the environment which have objectively constant meanings and values, but subjectively discovered and acknowledged as new possibilities of the environment. According to the distributed cognition theory affordances are either allowable actions or barriers that prevent activity. Both affordances are inherent environmental elements, but based on objective properties they are defined individually by the organism that experiences them. Thus, affordances are distributed cognitive representations belonging both to the environment and the organism. The structure and environmental information condition the external of cognitive representation spaces. Physical structures of the organism as well as internal structures and both biological and perceptual mechanisms determine the internal cognitive representation spaces. Internal and external representations together determine the space of distributed cognitive representations as either barriers or allowable actions.

Concentrated specific affordances form characteristic environments or rather social spaces like fatherland, region, city, home or work places, which all are specific offers that determine the perceived life quality. In various places these different concentrated affordances are present, which form what Zhang and Patel (2006) call affordance spaces. An affordance space consists of external spaces of cognitive representations on one hand and internal, in other words, mental spaces of cognitive representations on the other. The latter are formed by knowledge, experience, fantasies, dreams and other ideas about oneself and the world.

An individual during perception and affordance realization in external and internal space of life can direct oneself into barriers for action (negative affordances) or allowed to perform action by affordances possibilities (Zhang and Patel, 2006). If individuals define both external and internal representative spaces becomes disjunctive. This means that mental spaces and real based on barriers for action, then the affordance space of the living environment environment cognitive representations are different. However, if individuals define external and internal representation spaces based on possible allowable

actions, then the affordance space becomes conjunctive. After a conjunctive affordance space becomes reality, identification with the living environment and generally the surrounding real living space happens, which manifests itself in a compatibility between space affordances and both internal and identity motivation. Furthermore the disjunctive affordance space causes alienation from the surrounding environment and discord between internal and identity motivation.

This means that people function in two realities at once – internal-mental and external-environmental. The reality a person exists in consists of real and hypothetical possibilities, in which life goals and driving force activity is rooted (Gibson, 1979; Wilson, 2002). Cognitive and emotional evaluation of reality contrasted by images and dreams concerning the future is the basic motivational source to develop processes directed towards either adjustment to the given reality and living place or escaping from it to a different alternative reality. Therefore, similarly to the way people function in two affordance spaces there is a possibility for people functioning in two realities (Barsalou, 2009), that is, a concrete place as a set of physical, social and symbolic elements (Lewicka and Bańka, 2008) as well as a virtual reality relocated to cyberspace or to a mental space and embodied cognition as is the case in dreams, fantasies and illusions completely detached from reality (Barsalou, 2003; Niedenthal et al. 2009; Taylor et al., 1998).

Wilson (2002) highlighted two types of embodied cognition, namely, online and offline cognition. Online cognition as an externally situated cognition means that cognitive activities take place in direct proximity with a real environment and an external affordance space. What is perceived in online cognition are specific place affordances, whose realization (experiencing) is contrasted cognitively with an individual's identity development goals (Niedenthal, et al. 2005). If the result of such adjustment is satisfactory then an individual experiences positive well-being and overall quality of life and a positive attitude towards the surrounding life space. In an opposite situation an individual relocates to an offline cognition state and internal space affordances, namely, in the sphere of dreams, fantasies, illusions and other mental constructs. Offline cognition is cognitive activity detached from physical and social reality so that cognitive operations are continued and maintained through internal information processing (Niedenthal, et al., 2005).

Summing up, it can be said that identity distribution takes place both in relation to internal and external distributed cognition as well as in relation to a matching concept of embodied cognition both online and offline. Human activities are characterized by much larger driving force activity when as a result of distributed cognition a conjunctive affordance space is created, located in an online space. Identity dislocation results when cognitive deficiencies are both online and offline; however identity relocation either to online or offline space always results in unfavorable evaluations of activity possibili-

ties in a real life. This activity space located in real life usually leads to the development of life-efficient activities as compared with the activity space located in the virtual reality that leads to doing nothing either in a positive way in planning, designing, or thinking about potential activities or in a negative way like simulating activity in the form of a game, passive waiting or simply killing time.

Finally, people show in their life activities a higher efficacy when there is an interaction between internal and external distributed cognition as well as online and offline embodied cognition.

Passion for action and the psychology of doing nothing: driving-force mobilization mechanisms

The most important driving force indicator in successful people in our knowledge society is, by definition, knowledge as information. Who controls information also controls development and efficiency of action. Nobody questions this aspect of power that information gives; however, our knowledge society also has an issue with it. Similarly to a fly ruining an ointment, exponential growth of information ruins its usefulness over time. It means that an increase in information accelerates changes, and unexpected and negative consequences negate its effects both expected and positive. Knowledge as a set filled with useful information changes constantly, moment by moment, causing it to become obsolete and in effect, inefficient. Out-of-date knowledge needs to be replaced with a new theory, and this process faced by the tyranny of the moment and keeping up with modernization leads to knowledge production, contrary to evolving theory development, which was how it happened in the past. Knowledge production is a step process (Eriksen, 2001). One theory and form of knowledge replaces a different, a less up-to-date one, but not because it bears more truth, but because it is newer, goes directly on top, according to the *stacking* process. It becomes more available. If one cannot keep up in this race for new knowledge and new criteria of what is up-to-date, one loses his/her driving force. In this race the world and its history changes in a random, chaotic way – individually, collectively and globally. In this ever-changing world ruled by *stacking*, one person's history is being torn to pieces when it does not form a coherent whole (Devadason, 2007). Moreover collective histories, family or business, are pressured heavily by discontinuation and disappearance (Bańka, 2012b; Domański, 2014).

In a new environment that chases after new knowledge and action efficiency, new individual differences emerge particularly with coping strategies in a knowledge society. In other words deeply imprinted into a human's genes, one's personal inventory, mental resources, and all other traits begin to show in coping mechanisms of discontinuity, un-

predictability and instability. Increasing the pace and constant change as an inherent feature of a knowledge society forces out tradition, which up till now served as a protective umbrella against negative aspects of progress, (Bańka, 1994). At an individual level, differences in adjusting to constant change, information chaos and developmental progress without any movement in visible and diagnosable change trends manifest themselves in applying different coping strategies in the most basic psychological dimension, set between two ends – passion for action (Valenrad, 2008) and the psychology of doing nothing (Anderson, 2004). On the other hand, at a collective level the individual differences manifest themselves in intergroup rivalry strategies, like the ones used in a “jobs war” (Clifton, 2011).

Passion for action and the do nothing psychology (two of the most universal psychological mechanisms that manifest themselves when people are faced with discontinuation threats) together with tradition as a source of effectiveness for action (Bańka, 1994), are becoming obsolete in the knowledge society. These processes have gained new meaning. Hence two new opposites have emerged: coping with discontinuation and seeking life meaning mechanisms (2010a). The first one is develops and adjusts one’s identity to discontinued meanings in a negative and defensive adaptation cycle, with its most severe form being the psychology of doing nothing (Bańka, 2011a). The second one developments and adjusts one’s identity to discontinued meanings in an offensive cycle of adaptation, known in its most severe form as being similar to the obsessive passion disorder (Vallerand, 2008), which becomes a basis for a new tradition.

The negative model for adjusting one’s identity to discontinuation in our knowledge society is linked with a destructive discontinuation influence emotionally, mentally, and behaviorally, since the most popular solution to the fast pace of changes is an even greater acceleration in actions, including a fast change of self (Eriksen, 2001). The problem is that some people, for internal or external reasons, cannot keep up with their environmental changes and their own selves, which in turn creates mental states of being unable to discover one’s authentic identity or the meaning in life (Johnson et al., 2004). Losing life meanings, or even just a partial rift in continuity, place individuals and whole groups in a situation where they lack clarity in what to do, what actions to undertake (Stillman et al., 2009), which means they have no driving force. Losing continuity in life meanings has a destructive influence on the mental sphere through enabling behavioral automatisms (Bargh et al., 1996) and a deconstruction of mental states to defensively cognitive operations (Twenge et al., 2003).

Individuals who experience fast paced changes in the form of losing meanings and life values feel a sense of void in their lives, have decreased action goals, show deficits in emotional reactions, and everyday experiences are dominated by apathy and inertness

(Baumeister et al., 2004). People who negatively adjust cyclically to discontinuation isolate themselves solely in their authentic identity created by place realities and groups of direct influence, which in turn causes them to fall into a do-nothing loop, another apathetic form. We can categorize the psychology of doing nothing into two phenomena: negative doing nothing as an action aimed at killing time (Anderson, 2003) and creative doing nothing which is a mental slowing down that enables one to gradually discover useful knowledge.

A developmental model of individuals who function in a positive cycle for adjusting to discontinuation treat every change not as a prelude to a catastrophe and hopelessness but as a challenge and a chance to succeed (Kings, Hicks, 2007). People who react positively to knowledge discontinuation owe it to a specific character trait – passion (Vallenrad, 2008). Passion is a mental state of being possessed with goals and activities that are perceived by the object as very important, providing specific satisfactory types as well as a specific basis for self-evaluation. In other words, passion is a strong inclination for actions that people like, treat as important and in which they are more than willing to invest mental energy. People in everyday actions seek and discover activities that provide specific mental effects that together form what we call passion. Moreover, seeking and discovering goals that are capable of possessing an individual is also part of forming a passion. In this sense, passion as a discovering phenomenon, that is, seeking and forming enthusiasm for action, is a significant driving force for a person and is strongly linked with another phenomenon called *vocation*.

Concerning psychological mechanisms that steer intentional human behavior, passion is an internalization in the identity structure that gives pleasure as well as mental and utilitarian gain. However, according to Vallenrad (2008) internalization engagement into intentional behavior can be either autonomic or controlled. Depending on the way engagement internalization into intentional behavior assumes, two forms of passion can be distinguished – harmonious and obsessive (Vallenrad, 2008). Harmonious passion is inspiring and its source lies in an autonomous internalization of action goals that engage in activities that give pleasure, a sense of having initiative, authorship, and competence as well as enabling bonding with others. Such passion creates an identity gain, in other words, an interest in selflessness (Bańka, 2012a; Bourdieu, 2009). Harmonious passion expresses an individual's desire to take full control of his/her driving force in actions that bring fulfilment in relations with self and in social relations that reach beyond the moment into the future.

Obsessive passion as controlled engagement internalization in the identity structure is a calculated passion, aimed at a praxeological gain, in other words, it is selfish. It is a mental obsession with goals that leads to an uncontrollable compulsion, an ever-

growing engagement in actions that give measurable benefits, far outreaching any selfless sense of fulfilling one's identity. Concerning psychological mechanisms that map out the structure and meaning of human actions, obsessive passion correlates with excessive attachment to goals (Bańka, Wołowska, 2006, 2007). Excessive attachment to goals in obsessive passion leads to a fixation on goals and activities that naturally die out and as such should be replaced with others due to a change in operating conditions. In this configuration obsessive passion is a driving force, but only up to a certain point that is set by fixation on dysfunctional goals and activities. Actions that accompany obsessive passion, progress according to an assumption that space-time events and undergone activities are constant or even endless. A borderline prototypical example of obsessive passion and related to its dysfunctional driving force is a gambling addiction.

Passion and doing nothing are deeply intertwined. Passion can be a driving force of both action and doing nothing. An opposite relation is also true, in which doing nothing can be a path to discovering one's passion for action and the driving force that is associated with it. Moreover, the intertwining passion and doing nothing are especially significant in our knowledge society, in which the main imperative is to constantly update ever-out-of-date knowledge. This process switches from passion to doing nothing and from doing nothing to passion.

Knowledge together with the driving force being outdated prevents continued actions regarded previously as deliberate and efficient, as well as forces an intentional resignation from passion. In the first example, intentional resignation from passion means a conscious and temporary stepping down to doing nothing and as a planned ceasing of actions, is a cognitive activity, a recognition of activity barriers and planning of original solutions for a new equilibrium. Resignation from actions in an imbalanced equilibrium protects an individual from wasting motivational energy on actions that bring no development, which in a best-case scenario are just a progress in stagnation. An example are financiers' actions who continue what they were doing despite a collapsed banking system falsely convinced of a leap into the future based on a compromised theory. In the second case, ceasing actions due to depleted driving force energy, cognitive indifference to barriers and assuming a goal that avoids any changes. In this context, doing nothing results from ceasing actions and passions as well as seeking possibilities for starting new actions indefinitely.

Doing nothing and passion result from both cognitive activity and hope management. It means that doing nothing can be an individual's escape from obsolescence in a knowledge society, created by an exponential chaos-inducing knowledge growth (Kotler, Caslione, 2009), as well as an involuntary way of becoming self-obsolete. Consciously observing our energy for action passion running out in an ever-changing reality

leads, thanks to cognitive realism, to crossing a hope threshold from doing the same thing in favor of a new enthusiasm and a new stabilization. Finding out a new path needs a slowdown that doing nothing provides and it is not a complete resignation from passion, but its temporary suspension. It is different from an indefinite suspension of passion and entering a mode of doing nothing as regressive development. There is also another form of doing nothing, which is a lifestyle that aims at killing time because a driving force is permanently lacking due to crossing the no-hope threshold for any way to continue actions and find enthusiasm and energy that will fuel our will for life. About positive doing nothing there is hope for gradual development and a possibility to define it anew for oneself, but there is no such hope in negative doing nothing.

Summing up it can be said that passion and doing nothing are two driving force sources and are mechanisms for assuring continuity in the individual's functioning in our ever-changing knowledge society. Living in fragments granted by ever-faster information development requires from individuals a constant consolidation of his/her disintegrated identity into a workable, coherent whole (Hill, 1996). Hence, slowing down time and doing nothing is a way to integrate the world with identity. Identity continuity through referencing what took place in the past is an important life meaning source and a driving force, but only when life environment stabilization and a possibility perceive it comes from a broader perspective. In chaos and constant change a different continuity model is chosen, especially by young people thinking about development and the future – the congruence continuity. It can be described as sustaining identity structure through seeking possible compatibility in specific living spaces with goals and desired values for an individual. An optimal living space adjusts to the discovered and developed passion and the level of such adjustment is measured by success in life (Droseltis, Vignoles, 2010). The higher the compatibility between personal goals, values and a current living space, the stronger the passion and driving force of action.

Procrastination and indecisiveness: new patterns of driving force rationalization

Instability, discontinuity and unpredictability “IDU” of current living ways in a knowledge society means that agency is programed subjectively and situationally. These two programs need to be periodically synchronized. Both passion and doing nothing being sources of driving force and personality integration require from individuals initiating techniques that allow a smooth transition between situational and internal, subjective programing and the other way around. Such a mental means of action allowing for synchronizing subjective and objective programs is procrastination (Kuhl, 1984). It is a trait

or disposition to postpone tasks and decisions for later. Procrastination is a technique for slowing down one's personal life, especially with fast-paced environmental changes (Eriksen, 2001).

Procrastination is defined as an intentional, open or hidden, putting one's decisions and actions for later and is intuitively chosen as a mechanism to slow down the pace. Seemingly, despite the dysfunctional, efficiency-centered cultural norm that encourages a constantly increasing pace. In a situation like this a conflict arises between the external agency standard and the internal one, which results in feeling discomfort (Ferrari, 2001, s. 281) every time procrastination is adopted as a coping mechanism against all the changes, an increase in pace, unpredictability, and instability. This syndrome is shared by more than 25% of adults in the general population (Ferrari, et al., 2005). This means that procrastination, as a generally counterproductive mechanism, is used more and more often on the functional aspects of delaying decision-making to avoid, as fledgling psychological research points out, doing nothing (Schraw et al., 2007; Vandepas, 2015). Generally, though, the opinion that procrastination has more to do with a negative coping mechanism than a positive adaptation is prevalent. It has been pointed out that procrastination is getting more popular as a coping mechanism despite knowing that putting off decisions or avoiding tasks does not solve any problems (Steel, 2007).

Obviously, procrastination in a knowledge society has an ever increasing image, proportionately to the level of planning complexity, developing and carrying out efficient action in "IDU" conditions. A specific example of procrastination is developmental procrastination related to an individual's life plan, manifesting itself in the inability to make a decision about important, developmental tasks and life tasks on every cross-road in life. Developmental procrastination is both a problem in delaying one's entry into adulthood (consolidating adult status) (Schwartz, 2007; Côté, 2005) as well as in putting off decisions connected with life tasks – career decisions requiring changing from one field to another (Fouad, Bynner, 2008). Driving force of action a knowledge society, contrary to an industrial society, decreases together with knowledge becoming out-of-date. Hence, choosing to procrastinate, regardless whether in personal development or everyday tasks, can be summed up by the question: "To develop or to procrastinate?" (Fletcher-Campbell, 1998). Culture tells us to develop, but intuition and surrounding conditions tell people to procrastinate.

This dilemma is so mentally difficult that the struggle results in a phenomenon called indecisiveness (Bańka, 2014b). It is a set of affective, cognitive and behavioral reactions for doing nothing in response to difficulties that an individual faces when trying to express his/her identity in an "IDU" reality. Indecisiveness as an inability to coordinate life goals related to one's career was known and researched for a long time (Super, 1972), but in the

information era it acquired a new meaning (Iellatchitch et al., 2003; Fouad, Bynner, 2008), since many people of different ages and backgrounds can relate to it.

Making life decisions in a chaotic “IDU” reality carries an increasing threat of failure in evaluating one’s goals, seeking values as well as in realizing those goals. Potentially risking a faulty evaluation and bad choices, as well as risking failure in realizing chosen goals carries a great stress that requires special self-regulatory strategies shielding an individual’s identity from irreversible negative disintegration consequences. One such self-regulation mechanism triggered when faced with a threat of making wrong decisions is indecisiveness (Spunt, et al. 2009). Indecisiveness is the simplest possible driving force rationalization dealing with real or potential disintegrated threat identity in ambiguous circumstances, because it can be narrowed down to auctioning psychological defense doing-nothing mechanisms (Anderson, 2003). In this context, doing nothing does not have a negative connotation, because as a mental functioning mechanism in ambiguous circumstances it shields an individual’s entire psychological system from disintegration. This mechanism can be compared to a safe mode in electronic equipment. In everyday functioning doing nothing psychology is equivalent to a life philosophy of running away from obsessive engagement in everyday tasks into extreme slowdown, or growing on fallow land, metaphorically speaking. Thanks to a reduction in life pace and retreating from everyday bustling, the mind can discover life values that were previously hidden and unreachable.

Indecisiveness as a decision to procrastinate is a pattern for dealing with stressful situations that has several sources: a) excessive self-criticism in relation to possessed competencies due to fear, shyness or depression (Saka, Gati, 2007; Bańka, 2014b), b) a lack or excess of environmental action resources (as in choosing a career path that is not vocational) (Duffy, Sedlacek, 2007), c) difficulties in cognitive recognition of changes in the environment and the ability to define the most basic possible evolutionary trends in it (Palatano, Wengrovitz, 2007).

Thus, in the driving force context, indecisiveness manifests itself in a dual nature – functional and dysfunctional (Guay, et al. 2006). The first one as developmental procrastination is a rational path that prepares for a new equilibrium and driving force; however, the second one is a destructive form of petrification – negative pathological identity in doing nothing a . A partial analogy takes place here with functional and dysfunctional procrastination with one important difference – despite procrastination correlating with certain personality traits (Millgram, Tenne, 2000; Bańka, Hauziński 2014), contrary to indecisiveness it is never a personality trait in itself. Indecisiveness as a pathological trait and personality (Rassin, et al. 2007) permanently prevents making tough decisions by an individual in challenging life aspects like business, work, educa-

tion, accommodation or marriage regardless whether an individual is under considerable stress or not. Functional indecisiveness procrastination is an adaptive mechanism of driving force rationalization in “IDU” conditions, thanks to which an individual has more time to find optimal solutions and plans for the future (Guay, et al. 2006).

A condition to overcome pathological indecisiveness as a reason for lacking a driving force is career self-efficacy (Wolfe, Betz, 2004; Bandura, 1997; Bańka, 2013b). It is a striving for environmental exploration reflected in five competencies related to career decision: 1 – self-evaluation accuracy, 2 – gathering occupational data, 3 – goal selection, 4 – creating plans, 5 – solving problems. In this sense self-efficacy is linked with periodical adjustments to new identity equilibrium, like vocational, career, marriage maturity, based on various social and identity competencies. However, it needs to be clearly stated that career maturity in times of discontinuity, instability and unpredictability (“IDU”) is not a final developmental achievement as it was a few decades ago (Super, 1972), but a repeatable process in the form of an advantageous capitalization process (Judge, Hurst, 2007) or building a career capital (Inkson, Arthur, 2001; Bańka, 2006).

The driving force of action and doing nothing in a blurred reality changes the rationality and irrationality stresses in pursuing achievement and exercising it. Contrary to the 20th century, buffer periods of adaptive behaviors that use temporary indecisiveness mechanisms for rational actions in the long term are prolonged. Thus, what was a synonym for flawed development in the industrial era, today is a norm, not an exception. Together with new job market tendencies, a new phenomenon emerged as a result – the jobs war (Anderson, 2004; Clifton, 2011). Firstly, in our knowledge society a new developmental age has been defined, called “emerging adulthood” (Arnett, 2000). It is the period between ages 18 and 20 that manifest itself through procrastination in almost every aspect of life, in which temporary indecisiveness is the only correct way to rationalize the driving force planned for an individual’s whole life. Secondly, progress’s chaotic reality increases systematically the ratio of people affected by the procrastination syndrome and indecisiveness in all ages. This phenomenon results from an ever growing rift between factors that are a basis for building maturity in the moment vs. their entire life as a personality trait. Factors that are a basis for temporary maturity for a given moment differ from those that decide about maturity for life. However, indecisiveness always means feeling a lack of self-efficacy, not making lasting, long-term life commitments, weak attachment to a chosen path, obligations and responsibilities (Tokar, et al. 2003). It has been pointed out that indecisiveness as immaturity is tied to a lack of clear prospects concerning what is one’s place in life (Bynner, Parsons, 2002) as well as an uncertainty about what is going to happen in the future, which leads to a lack of long-term self-development (Crowford, 2009). This is modern societies’ main worry once they

have based their organization and driving force on knowledge. When the precarious class – people who are well educated and equipped with knowledge but are still unnecessary on the job market – systematically grows in knowledge societies, a question is being asked over and over again: “What needs to be done when knowledge does not guarantee success or at least doesn’t avoid failure?” In other words, how to escape the trap of the moment, to preserve the sense of life, or the possibility for action and social bonds?

Simply doing and desperate doing as alternatives for desirable activity

Millions of people face a very difficult problem, which is what behavioral strategy to adopt in a situation where activity and context are discontinuous. This problem can be narrowed down to a situation where an individual has no chance to choose such a life activity that would be in line with his/her preferences, personality, interests, financial aspirations and desired social status. This problem is faced by millions of the unemployed, emigrants and others like them, poverty stricken, working men and women, who are only allowed to perform the tasks that are available at the time. This extreme lack of possibilities creates a situation in which many people ask themselves about life’s meaning when their existence is filled with activities devoid of any value or sense that would guarantee a desirable level of self-esteem and life quality. Such people’s mental state, working yet poor, surely meets the marginal situation definition. Undergoing any activity in a marginal situation is always marred by pain, hopelessness and being unable to plan a desirable future logically related to the present. Activities that are devoid of a clear meaning are a particular type of reality fragmentation, since from its elements one cannot construct a plan for the future.

Marginally, such as the necessity to undergo only those activities that are available at the time, an individual becomes trapped in the present. To continue moving on, this individual needs to fight for motivation, defeat his/her aversion for doing the everyday disliked and repulsive tasks. In a marginal situation lacking choice, a total decontextualization of activity takes place (Bańka J, 2014; Mudyń, 2010) – activities completely lose any meaning. Individuals who suffer in the IDU reality with life’s basic decontextualization activities such as work and practicing ones occupation are not to be blamed, because they are rather victims of an external situation, namely, globalization. As it was earlier argued the current IDU global reality disrupts access to both the adequate theories as a ready-to-use mental means of action as well as private theories based on the epistemology of practical action. The primary reason for this is a loss in meaningful activity concerning space-time reduction to the present moment.

Context is such a structure that enables, with a certain delay, acquiring information about the results of one's actions that leads to creating a coherent image about how it looked in the past and how it will look in the future. Therefore, context is a notion and phenomenon related to our surroundings, environment and space that defines a person together with his/her actions. The context of human life and activities is a spontaneous phenomenon appearing in the same way as a sentence context appearing while reading (Kowalik, 2015). From building life meaning, context is not a driving force activity in the same way as environmental factors can be, but it builds a background for this activity. Contrary to stimuli as triggering activity impulses, context is generally constant or the change happens steadily. It can be assumed that space-wise, context reaches beyond the present and encompasses also the future (Kolstad, 2010). Thanks to widening the range of space-time activity observation, human behavior gains in significance and meaning. Context, thanks to its property of widening the time and space perspective, allows for analyzing the outlook of a wider group, not only the subject who experiences context directly. Context is a baseline that enables a basic level of understanding between cooperating people and thus allows establishing limits for their mutual interactions (Montero, 2002). It is formed by all the important factors of social life, which means those factors that are also taken into account by people during their activities, meaning economic, cultural, educational, political, technical and historical (Gelfand, Lyons, Lun, 2011).

Contextual meaning of action is a phenomenon created in one's consciousness that enhances understanding existence in space and time based on delayed feedback coming from one's actions. People, by acting in a context, experience knowledge about their own actions and enhance their self-understanding. Contextualization's essence relies on forming in the consciousness individual images of the current social order-disorder in economic, political, cultural, communication, and legal dimensions. Context and contextual action are what perceptively prepares an individual for future activities. Opposing contextualization is decontextualization. Context and contextualization in a psychological sense are controlled perceptive activity in a closed loop in an environmental and behavioral relation (Marken, 2009). Contextualized activity – defined as delayed information feedback about the results of actions – causes this feedback to be a secondary activity stimuli (Kowalik, 2015). This way seemingly distant from direct activities of here and now, its effects are experienced directly as an element of everyday functioning among modern day people. Global decontextualizing makes it so that undergone activities do not provide any long-term feedback and thus, there is no way to determine the result of past activities on human life. The undefined globalizational context makes it so that people are not able to form such a perceptive attitude that would help stabilize activities and provide a high independence level from direct environmental influences.

Even though globalization decontextualization makes it difficult for individuals and groups to assign individual meaning (creating an image of oneself based on individual activities), it is not a barrier that cannot be overcome. In a situation where performing activities far detached from any sort of creation is a necessity, people can still choose between two alternatives – simply doing and desperate doing as a form of doing nothing and self-exploitation. Simply doing is an activity based on motivation to do anything at all, realized as a mantra in the interest of selflessness, unconcentrated on evoking negative feelings and emotions (Bańka, 2014c). The equivalent of simply doing in industrial and organizational psychology is a psychological work theory of psychology of working developed by Bluestein (2006). It stipulates treating even the most trivial activity as work and contrasts it with the mental state of doing nothing. In the digitalized reality most people have no chance to work in a chosen field for their entire lives (Clifton, 2012). Working as simply doing means that we should broaden the notion of useful activities to include not only desired and expected creative activities but also simple automated tasks, repeated like a mantra and everyday chores. Simply doing is a program of minimal initiative demonstrated by an individual to escape the impossibility and decontextualization trap in a world of long continuance. The basis for discovering anew life's meaning in seemingly trivial activities without any signs of creation is openness to new experiences (Bańka, 2015b).

In a situation where an individual has no options to undergo activities in line with his/her personal, economical and social preferences the opposite of simply doing is desperate doing. A marginal situation that lacks choice for activity is always a painful, but reaction to it can lead into two different directions. One is isolating yourself from a negative affect by simply doing, the other being a fixation on negative emotions and desperate mental states and non-stop mourning. In the second case, activity which lacks meaning is painful, which unleashes negative thoughts that are a shadow of this pain. They prevent an individual from finding a way out from this trap of ruminating on negative feelings and trivialized activity. The affective isolation double-trap in a sphere of negative emotions and cognitive close-mindedness to trivialized activity that lacks desired subjective benefits is a destructive self-exploitation driving force (Kowalik, 2015; Łukaszewski, 2014).

Self-exploitation is a voluntary resignation by an individual from his/her subjectiveness in alternative activities resulting from a lack of desirable and expected ones. It is substitute activity contrary to activities that provide an individual with real benefits, satisfy needs and authentic identity. In self-exploitation important life needs are satisfied by illusions of getting closer to an authentic identity. A self-exploitation example can be prostitution, as well as an illusory discovering one's identity through engaging in cyberspace. Self-exploitation is accompanied by a mindless submission to external compul-

sion to be active without thinking about the reasons and effects that come back as information echo. In self-exploitation, activity is seen as forced by external stimuli and as such is done completely in an open perception loop, in which the next stimuli creates a new reaction. In subjective activity an individual functions in a closed perception loop, wherein feedback plays an important role as a secondary stimuli that organizes activity based on the results of the previous one.

Activities that are in contrast with an individual's values and subjective meanings be it consciously or unconsciously lead to resigning from subjectiveness in two ways: 1 – by seeing oneself as a loser and victim, in consequence as an object of constant trauma and mourning; 2 – through willfully surrendering ones subjectiveness as personal inalienable values independent of external conditions. It is a total surrender to the tyranny of moment with its current requirements and activity offers. Long-term planning is replaced by ad hoc activity goals without a plan for personal development. Long-term self-exploitation effects are destructive for an individual, because they force a person into an activities spiral that does not bring any personal benefits (Popiołek, Balawajder, 2012). Contrary to self-exploitation the simply doing strategy brings an individual nothing but benefits like a sense of life quality, higher self-esteem, and positive affectiveness. As a minimalist strategy for positive acting in a situation where one is not able to do desired activities, simply doing leads to two positive states. Firstly, it sustains and redirects the mind and life energy absorptions from automatic and mindless cognition and acting levels to reflective and intentional cognition levels. Secondly, it helps sustain and redirect the absorption of the mind and life energy from desperate doing and cognition levels to newly discovered values, meanings and hope. Simply doing is a prelude to a planned advantage capitalization as well as showing initiative in proactiveness.

Capitalizing on one's advantages and proactiveness: preemptive creation of driving force

To answer the question – what has to be done to have such a driving force so as to not only survive but also live according to one's aspirations in a knowledge society – one has to keep in mind the paths one needs not follow as well as the paths that most efficiently lead to one's goal. What does not guarantee the desired driving force is surely mindlessly imitating those that have already achieved success or reached power specific to a knowledge society. The first group can be envied at the most, the second group someone to fear, but imitating them is counter-productive, since imitation based on superficial information processing (Brewer, Feinstein, 1999) does not give a valuable substrate for a driving force that would be effective in "IDU" conditions. What allows us

to acquire a desired driving force in a chaotic reality is strength of character (willpower), since only it makes us trust others and have sufficient self-confidence (Bandura, 1997; Bańka, 2013a). Self-confidence is a virtue that guarantees a sense of self-efficacy, which is the mental foundation for efficiency in action when facing adversities. It's a character trait that is a part of identity capital (Côté, 2002) and as such needs determined defending from corrosion (Sennet, 1998) and constant care for its quality. Caring for identity capital is a preemptive creation of driving force, at times when it is not yet needed, but can be required when trying to compete with others in similar career capital parameters, for instance – certified education.

Recently, in psychology new theories have emerged that try to answer the question – what does an individual do when options for actions become limited or cease to exist due to independent circumstances? From a multitude of propositions only two will be presented here as they are the closest to defining driving force in a knowledge society. Both refer to a simple alternative – when faced with an inability to continue intentional actions like work or doing business, one has to choose between doing nothing and procrastination on one hand and doing whatever on the other; it is advisable to choose action, even though at that given moment it may seem pointless, for instance from a financial perspective. This rule, in other words, expresses the notion that the best way to retain driving force in discontinuity is to do anything just for the sake of doing something.

The first theory proposing benefits for driving force through action for the sake of action is Judge's and Hurst's (2007) advantage capitalization theory and similar to it, James Côté's (2002, 2005) career capital theory. Both share the idea of advantage capitalization and the goal to become an effective career capitalist (Inkson, Arthur, 2001). Career capital (Bańka, 2006) is the main way to overcome procrastination, indecisiveness and negative doing nothing in a knowledge society and global economy (Lamb, Sutherland, 2010; Bloom et al., 2010). It is the basic antidote for recurring driving force collapses in discontinuity and instability. This notion also describes general personal resources acquired by an individual in various roles (e.g. family, societal) and actions (e.g. work, free time, leisure, travelling) that can be summoned on demand in business, work or everyday life (Côté, 2002, 2005; Bańka, 2006). The second theory explaining driving force emergence in conditions of discontinuity is proactiveness or pre-emptively realizing future goals in the present. Both concepts are character building and personal influence on reality theories (Bańka, 2015).

Advantage capitalization and building career capital assumes that it is possible to subjectively steer identity consolidation in everyday experiences (Bańka, 2013a; Schwartz, 2007) through resource accumulation. The notion of advantage capitalization was introduced by Langston (1994) and developed by Judge and Hurst (2007) to signify

the benefits derived from actions and events that bring pleasure. Pleasant experiences and events bring direct benefits in real time, but also have a very specific quality – part of their value outreach the present, emanating positive influences on the short- and long-term. The identity advantages are benefits that retain a positive surplus acquired through positive reactions to pleasant events (Bańka, 2010b). Positive events that take place in family and social life, create positive psychological reactions that are disproportionate in response to situations that trigger them. That is why the surplus of benefits can be accumulated in capital and moved to different events and times. The advantage capitalization has is that an individual can use it during flow to control his/her driving force in all other actions in which it is required to use mental energy, like undertaking actions or jobs that require overcoming unwillingness or pain (Blustein, 2006).

Realized advantage capitalization based on pleasant events is the opposite of coping with adversities and generally difficult situations. The latter form personal resources like resilience that undergoes capitalization. Both types of capitalization give in effect identity capital (Côté, 2002, 2005), which can grow or lose its value or be replaced with other forms of it. For example, educational competencies may be used to get a job that even though it does not grant expected pay, allows one to acquire work reputation capital in a given institution, which in turn makes it possible to find a better paid job. So according to identity capital a new job can be a source of inspiration (knowing why), expertise (knowing how), connections, and networking.

The condition for identity capital to be a driving force is constant self-investing. It acts in a similar way to investing in financial capital (Inkson, Arthur, 2001). The goal of career capital investment (as time spent on education and self-exploration as well as the environment one lives in) is to secure future return on investment. This return can manifest itself as knowledge enabling one to overcome procrastination, or as long-term returns – readiness and openness (Bańka, 2015) to do things that previously were beyond reach. Accumulated identity capital can yield such returns as safety, satisfaction, socio-economic status, and autonomy as well as providing a sense of identity continuity in our ever-changing world.

Renewal identity capital through investing in personal resources is the best way to secure oneself from procrastination, a devastating influence. It is also a higher form of resourcefulness and entrepreneurship because it is selfless interest (Bańka, 2012a, 2013b). Identity capital finds a direct transposition in career capital, where the driving force of action comprises three areas of knowledge: “knowing why”, “knowing how” and “knowing who”.

Capital assets of “knowing why” comprise mobilizing energy competencies (motivation), an aim, and meaningful action as well as identifying with action. Thus, they are

personal resources, thanks to which an individual is able to start new projects, like learning new skills to realize newly discovered passions. Capital assets of “knowing how” comprise competencies that are technical, expert, hidden and accumulated through experienced knowledge. Capital assets of “knowing who” comprise competencies that help in moving through social networks, building social and relation capital, reputation, social structures that feed information about up-to-date, potentially available affordance actions (Bańka, 2011a). These assets are linked with social mobility, meaning – family, social, friend, business networking that is pursued during work hours and in free time.

As far as advantage capitalization is largely an automated process of identity consolidation, identity capital accumulation and its practical career capital aspects requires using intentional techniques. The most important technique for rejuvenating, accumulating and transforming identity capital as a driving force in “IDU” conditions is proactiveness (Bateman, Crant, 1993; Bańka, 2009a, 2015). Proactiveness is an intentional organized cycle that prepares one’s organism to intelligently recognize possibilities for action and undertaking action, regardless of current and future barriers (London, 2014). In an “IDU” reality motivated actions that are aimed at career goal realization concentrate mainly on investing in career capital (Bańka, 2006, 2012a, 2014b), assuming they will bring quantifiable benefits in the future. In this context proactiveness is a special activity that postpones driving force accumulation gratification from decision-making as a potential to be used in the future (Crant, 2000; Bańka, 2005, 2015a). Such an understanding means future-aimed personal development, which on one hand is a new action theory in “IDU” conditions and on the other hand a new proposition for the art of life in a reality dominated by fast paced changes.

Generally speaking, proactiveness is intentionally triggered by an individual in real time without specific implementation intent on a here and now goal. It is the ability to not only change oneself but also to initiate changes in the life environment through forcing functioning rules upon it that adhere with the individual’s needs and intents. In this sense proactiveness as a preemptive reinforced driving force is not only as far away as possible from a stance of passiveness and apathy but also reactivity. Preparing a driving force for the future can only happen through a subjective agency. The essence of proactiveness in this context is tying various simulatory forms of psychological life – related with dreams, planning, or psychological contrasting (Sheeran et al., 2013) with practical actions aimed at practicing and self-analysis (Harding, 2013) simultaneously being practically engaged in environmental change. In proactiveness the following mental processes meet – planning with practical action and coping (Aspinwall, 1997).

Proactive actions are, thus, a part of a long-term preemptive adaptation to objectively unpredictable but subjectively sensed potential threats and adversities. They self-organize life experience and as such they are useful in solving difficult problems that

may occur in the future. Important elements of proactiveness are intentionalism, practicalism as well as realism in creating one's reality base. In proactively building a driving force, both mental simulating and practical contrasting dreams with reality are essential (Sheeran et al., 2013). The idea is that the dream driving force and its plans need to be constantly checked against practicing it in real time (Aspinwall, 2005). In other words, a future driving force cannot be tested in any other way than by mental and practical simulation in real time. Proactive behaviors are a typical form for investing in the future through developing the structure of self, which has an insurance function for the unpredictable but probable barriers in the future. Hence, proactive behaviors are not about satisfying current needs but hypothetical ones that are imagined by an individual as probable in the future.

Proactiveness is not only a way to multiply an individuals' resources capital but influences the environment to form optimal conditions for action in the future. Thanks to proactively transforming the environment an individual not only increases his/her driving force by increasing freedom of action, but also increase the ability to discover new possibilities, values and meanings that in turn open up new horizons for the driving force (Bańka, 2010b). Thanks to proactiveness a human being frees himself from environmental unpredictability; moreover, the impulses that stimulate intentional behavior originate not from environmental pressures but from subjectively generated intentions.

Concluding remarks

My article presented a psychological perspective on where modern man's driving force of a modern man comes from faced with a huge pace of changes that characterize knowledge societies. First and foremost it was crucial to document a thesis that contrary to a generally accepted notion the driving force in an ever-changing reality cannot rely solely on increasing reaction times to accelerated changes. We attempted to show that the driving force of action could be derived from its exact opposite – doing nothing. This results from a principle that a better antidote for losing driving force is slowing down, not accelerating reactions.

Another thesis proved in this article is that even though passion for action is an indispensable condition for driving force in a knowledge society, its excess and lack of self-control can lead to a counter-productive obsessive realization of actions. Obsessive goal pursuing disrupts not only a praxeological ability to realize goals but also disturbs the ability to achieve meaningful actions. Praxeological ability without the meaning leads to a pathological driving force, where positive effects do not outweigh the negative ones.

Another thesis developed in the article is that speed of action, even though a necessity, is not a virtue. In fast paced changes, slowing down decision making and actions in the form of procrastination is a sign and demand of the times as well as an indicating a rational mind. Positive and negative procrastination in very fast environmental changes balance out, but the longer the procrastination the higher the risk that it will lead to irreversible and pathological indecisiveness, which is one of the biggest threats to the knowledge society.

The last thesis brought up in my article is the assumption that the best way for a successful life in a knowledge society is not waiting for a driving force to appear, but to actively and proactively build it through advantage capitalization as well as identity capital accumulation in coping with life adversities. Proactiveness as a systematic evaluation of career capital adjustment to identity, unpredictability, discontinuity and instability in the reality of an information era is the most efficient way to overcome obsessive passion, negative doing nothing, procrastination and indecisiveness. Passion, the ability to slow down, distributed identity, procrastination, developmental indecisiveness and proactiveness form a new set of metacompetencies securing people's driving force in a fuzzy reality. Thanks to the aforementioned metacompetencies an individual is able to, regardless of the shocking changes, retain self-efficacy and balance between an unrealistic optimism and unrealistic pessimism.

Independently from the above discussed theses, my article also reviews the basic types of discontinuity and personality types related to them. These five discontinuity types are: 1 – place discontinuity, 2 – situation discontinuity, 3 – meanings and values discontinuity, 4 – context discontinuity, 5 – projective discontinuity.

Place discontinuity is the abruptness of surroundings as an individual's habitat in a world that brings meaning to life that cannot be reduced to anything else. Place continuity marks the meaning for activities undergone by people. Clarified activity goals in a place is equal to the driving force of activity. In place discontinuity an individual's personality, which is rooted in it, disintegrates because it is based on retrospective place memory imprinted in its activities. A personality rooted in a place can only be efficient in activities related to this given place, because its cognition system is linked with activity affordances determined by specific location. Place discontinuity for people rooted in any given place means their world has collapsed, often causing reduced driving force activity. The effect of place discontinuity is different for place rootless people, whom cognition systems are rooted in an abstract affordance space and abstract prospective memory of desired activities. People who are place rootless direct their attention and cognition system towards affordance perceptions that enable maximizing driving force activity no matter where they currently are. The basic functional relation of driving force activity remains the re-

lation to places, which, as perceived by an individual, are best adjusted to the desired activities.

In situation discontinuity the problem which lies before an individual is to be able to retain activity prolongation. It needs to constantly transition between declining situations and newly emerging activity affordances. In this discontinuity the driving force of activity is determined by two personality types: the passion for action type and, surprisingly, the type which has an ability for doing nothing. People gifted with passion for action transition smoothly between situations with depleted activity affordances to situations where driving force activity can be resumed. Such flexibility for continued driving force activity is possible through either harmonious or obsessive passion. The first one synchronizes objective and subjective self-efficacy markers in pursuing desired goals. The second one is focused solely on realizing praxeological activity goals. The personality type focused on doing nothing uses two contradictory equilibrium principles in a situation of discontinuity. The first one is about transitioning to an optimal state of mind as a support for a temporary and intentional continuity breaking with the previous real situation. The second one is about transitioning from a real situation that prevents an effective realized activity driving force in to a proxy one, detached from reality.

In the third discontinuity type related with meanings and values, the driving force of activity is defined by procrastination and indecisiveness. A procrastinating personality is a functional adjustment to a discontinuity situation of meanings and action values when together with declining motivation for activity a strong hope for the return of conditions that enable highest efficacy standards is present. Indecisiveness is an established personality type syndrome that postpones activity indefinitely. It is a way of coping with meanings and values discontinuity through rationalizing non-action as a necessary behavior.

The fourth type of discontinuity manifests itself when the meaning of activity as a feedback disappears as the result of previous activities. This discontinuity determines two adaptive personality types for change. One is a synthetic exploration of activity context reaching beyond short-term gain and loss activities that do not provide expected benefits. The second type of personality in conditions that lack context for activity meaning relies on analytical concentration on balancing short term gains and losses. In the first case an individual retains control over the activity driving force on a minimal level, which engages the cognition system into seeking desired activity affordances despite facing extremely unfavorable conditions. In the second case an individual is limited solely to damage control of affective actions forced by a compulsory situation. This way it isolates the individual from exploring potential efficient and desirable activity affordances and ends up doing nothing. The doing nothing psychology as a passive stance contrary to creating conditions for a better future leads to self-exploitation – using up personal resources needed when coping with life's adversities.

The fifth and last discontinuity type is a situation where discontinuity is not a present state but it is projected as a prognosis, so an anticipated and probable state. Projective discontinuity is a mental reconstruction of real life conditions, where every string of events ends with unpredictable ones that require an individual to design and implement new activities. Adjustment to the projective discontinuity is done by two types of personality: first, a thrifty man's personality in his personal space. He is resourceful, and constantly prepares his/her own driving force of activity to prepare himself/herself to negative random, economical and occupational events. The second type is the foresighted man who prepares for a "rainy day"; to sustain even a minimal activity driving force, this individual needs to employ his/her own personal resources that were not needed previously. In the second case a resourceful personality type means being prepared to sustain his/her driving force of activity during adverse conditions. Two ways to express a resourceful personality type is advantage capitalization and proactiveness. Advantage capitalization is a constant management of personal resource adjustment when faced with critical declines in driving force activity in an objective situation, independent from the subject; whereas proactiveness is personal resource management through self-evaluation in relation to the driving force of activity in critical situations dependent only on changes in the subject's resources. Proactiveness and advantage capitalization contrary to simply doing are not a reactive optimization of driving force activity in a discontinuity situation, but a prospective way to organize it in case of an emergency.

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Correlation between the perceived residential environment quality and the inhabitants' quality of life and civic behavior

Abstract:

Although it has been assumed for many years that there is a relationship between the subjectively perceived quality of residential environment and quality of life, empirical evidence for the existence of such a link has been inconclusive. It is also assumed that the perception of residential environment in a certain way covariates with the behavior of people in this environment; Empirical support for this correlation is now all the more problematic. The objectives in the our research project were as follows: (1) enriching the current knowledge about those links between the perceived quality of various residential areas and their inhabitants' experienced quality of life , and (2) examining the co-variables between the sense of satisfaction with the residence and declared pro-social and civic behavior. For the purpose of our study, we proposed an original theoretical framework integrating several available man-environment-behavior relationship concepts with the more general *homeodynamic regulation* concept for achieving psychological balance. Sixty-two people aged 18 to 85 took part in the research. Two groups were identified in the analysis: young adults and seniors. No significant correlation was found between the respondents' perceived quality of life and their satisfaction with the quality of the environment they inhabited. It was almost exclusively seniors who undertook activities to benefit the residential area, and their life quality was correlated with this activity. Young adults turned out to be generally inactive. Correlations between pro-social and civic behavior and the residential area's assessed quality proved to be weak and simple, but had different directions and dimensions in young adults and seniors.

Keywords

environmental psychology; perceived residential environment quality; quality of urban life; environment and behavior; pro-social behavior; civic behavior; senior citizens

Streszczenie:

Mimo, że od wielu lat przyjmuje się założenie o istnieniu związku subiektywnie spostrzeganej jakości środowiska zamieszkania z jakością życia, empiryczne wsparcie istnienia takiej relacji było dotychczas niejednoznaczne. Zakłada się też, że spostrzeganie zamieszkiwanego środowiska w określony

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sposób jest współzmiennie z zachowaniami ludzi w tym środowisku; empiryczne wsparcie tej korelacji jest dziś tym bardziej problematyczne. Celami omówionego w tym artykule projektu badawczego były: (1) wzbogacenie dotychczasowego stanu wiedzy na temat wspomnianych wyżej związków pomiędzy spostrzeganą przez ludzi jakością różnych aspektów ich środowisk zamieszkania a doświadczaną przez nich jakością życia oraz (2) zbadanie współzmienności pomiędzy poczuciem satysfakcji z miejsca zamieszkania a deklarowanymi zachowaniami prospołecznymi i obywatelskimi w tym miejscu. Zaproponowaliśmy tu autorską ramę teoretyczną integrującą kilka istniejących wcześniej koncepcji relacji człowiek-środowisko-zachowanie z ogólniejszą koncepcją homeodynamic regulation w osiąganiu równowagi psychologicznej. W badaniach wzięły udział 62 osoby w wieku od 18 do 85 lat. Wyodrębniliśmy w analizach dwie grupy: młodych dorosłych oraz seniorów. Okazało się, że poczucie jakości życia badanych w zasadzie nie miało związku z ich satysfakcją z jakości zamieszkiwanego środowiska. Aktywność na rzecz miejsca zamieszkania podejmowali niemal wyłącznie seniorzy, i była z tą aktywnością współzmienna jakość ich życia. Młodzi dorośli okazali się generalnie nieaktywni. Zależności pomiędzy zachowaniami prospołecznymi i obywatelskimi a oceną jakości środowiska okazały się słabe i prostoliniowe, aczkolwiek miały inne kierunki i wymiary u młodych dorosłych i u seniorów.

Słowa kluczowe

psychologia środowiskowa; spostrzegana jakość środowiska zamieszkania; środowisko i zachowanie; zachowania pro-środowiskowe; zachowania obywatelskie; seniorzy

Introduction

Although it may sound obvious today, the quality of the physical environment is important for people's mental functioning. As various theoretical concepts and studies indicate, for example, a particularly important factor conditioning the quality of life is the living environment (e.g. Bonnes, Scopelliti, Fornara, & Carrus, 2012; Dębek & Janda-Dębek, 2013; Diener, Lucas, & Oishi, 2002; García Mira, Uzzel, Real, & Romay, 2005; Keles, 2012; Perlaviciute & Steg, 2012). Many existing studies emphasize the relationships between the overall environmental quality and quality of life (cf. Dębek & Janda-Dębek, 2013). Although studies on the quality of life, experienced satisfaction levels and adaptation to the environment are very important, they relate to evaluation and states rather than human behavior. These may, but need not, be correlated with certain human experiences. For environmental psychologists, on the other hand, people's behaviors in relation to certain environmental characteristics they experience are the primary focus in the research.

It is also commonly known that the perceived environment covariates with their inhabitants' behavior either to benefit the environment, or be against it. This is primarily about environmental ecological and defensive activity or aesthetic improvement related to the social capital and so on (e.g. Lewicka & Bańka, 2011) as well as to pathological, antisocial devastation and destruction (e.g. Gifford, 2007). The relationship (usually in-

direct) between the perceived environmental features and mental states or certain human behavior resulting from these observations is quite evident in modern studies (Bell, Greene, Fisher, & Baum, 2004; Dębek, 2014; Gifford, 2007; Marans & Stimson, 2011). However, no conclusive test results were found in the subject literature that would be based on essential human mental states, and certain behavior resulting from them.

The aim of our research project was to enrich the available knowledge of the links between the various perceived qualities of the residence and the quality of life people experience there. The second, and more important goal for us, was to examine the co-variableness between the sensed satisfaction from the residence and the declared pro-social and civic behavior of the respondents living there. Eventually, we included two different age groups in the research design: young adults and seniors. These two age groups were chosen primarily because there had been no conclusive reports about the diversity in life quality and differences in perception of the environmental quality by these two groups (e.g. Czapiński & Błędowski, 2014). The second reason was the inclusion of the life cycle stage in Gifford's framework for (2007) investigating human–environment systems (discussed later in this article) as a significant subjective factor conditioning these relationships.

For consideration and hypotheses about these correlations, especially concerning assessment of environmental quality and pro-social and civic behavior, we set forth an original theoretical approach, integrating the eclectic human relations model with the surrounding environment by Bell, Greene, Fisher, & Baum (2004), research model of residential satisfaction, behavior and well-being by Gifford (2007), model of the relationship between environmental domain satisfactions and life satisfaction and behaviors by Campbell, Converse, & Rodgers (1976), and Person-Environment Integrative-Transactional Framework by Dębek (2014). We also assumed that people are generally motivated to act pro-environmentally and demonstrate a desire to achieve psychological balance, which is impaired both in very weak, and very good fits to their areas of residence.

Theoretical and conceptual framework

Associating people's pro-social and civic behavior with physical characteristics of their places of residence is common, but rarely theoretically grounded in fundamental psychological mechanisms. The above-mentioned people-residence relations models (Bell et al., 2004; Campbell et al., 1976; Dębek, 2014; Gifford, 2007) are four of many theoretical conceptualizations. They are, in our opinion, the most relevant in the discussed research. Each model emphasizes links between environmental perception by people and their behavior towards the environment, either modifying it or acting against

it. These concepts also show that environmental perception covariates with specific psychophysiological and psychological states, such as a sense of satisfaction, relaxation, stimulation, overload, reactance and ultimately attitudes towards the environment.

One of the first models dealing with the problem described above was offered by Campbell et al. (1976). This model focused on the link between multiple domains of human life (i.e. broadly defined aspects of family life, health, and residence) with overall life satisfaction. This satisfaction, in turn, was both directly and indirectly associated with various human behavior (i.e. coping, adaptation). Campbell et al. (1976) sought to demonstrate a sequential cause and effect relationship link between the objective attributes of the environment, its subjective perception, evaluation, satisfaction, and ultimately behavior. There, human behavior resulted from satisfaction with various domains of life (including the residential area), satisfaction with life in general, and individual personal traits. Campbell et al. (1976) did not assume the existence of feedback between behavior and objective environmental features; such an assumption seems obvious today, (Stokols, 2013) evident, among others, in the three theoretical concepts discussed below. What makes this concept particularly valuable from our viewpoint, is the inclusion of quality of life as the result of the environmental perception and, at the same time, the reason for certain behavioral forms.

Bell et al. (2004) showed another aspect. In their framework, in many places analogous with the proposal by Campbell et al. (1976), they hypothesized about certain behavioral causes and consequences. They claimed that perception of the environment can lead an individual to two basic conditions: person-environment fit or lack thereof (i.e. perception that the environment meets user needs or otherwise (Bell et al. 2004 p. 421). According to the authors, satisfaction is the ultimate mental state for a fit. The authors assumed that the absence of person-environment fit is followed by agitation, stress, overload or reactance, and consequently either adaptation (or adapting to the environment), or persistent arousal and stress (intensifying), thus leading to vandalism, social withdrawal and fragmented responsibility. While the behavior mechanism in the lack of human-environment fit was detailed in Bell et al. (2004), the analysis of behavior mechanisms resulting from a good fit and satisfaction with the relationship with the environment has been inconclusive.

Gifford (2007) in one chapter of his flagship environmental psychology textbook, included a small but interesting diagram presenting the relationship between urban design, physical environment being its result, people inhabiting it, observations people make concerning this environment, and eventually their behavior – *model for urban environmental psychology*. In this model, as well as in the aforementioned conceptualization of residential satisfaction, behavior and well-being, Gifford (2007, p. 260,287) assumed that human behavior, such as pro- or anti-social behavior, vandalism, taking

care of the environment or restoring it, is correlated with the impression of the living environment (considering it threatening, satisfactory, etc.) and dependent on the specific characteristics of people inhabiting it (e.g. life cycle stage, residence length, economic status etc.). However, in the above schemes Gifford (2007) did not outline the character of this dependence, and instead offered a general framework for a part of relevant studies dealing with human behavior in urban environments. Gifford's model (2007) was particularly important to us thematically as it specifically concerned urbanized spaces, and contained theoretically relevant variables similar to various pro-social and civic behavioral forms in the place of residence being our own research focus.

Dębek's framework (2014) offered a similar outline. However, rather than forming hypotheses on the directions of the environment-person-behavior interdependencies, it adopted the doctrine of reciprocal determinism set forth by Bandura (1978), aptly presented also by Kihlstrom (2014). From this article's perspective, it is important that Dębek (2014) tried to show as many interrelated, specific aspects of environments (e.g. symbolism, functionality, environmental consistency, form, social elements, etc.), as characteristics of people (demographic, psychological, cultural) and their possible, specific mental states (person-environment fit, sense of place, attachment to the place, etc.) and behavior (approach, avoidance, performing, transforming, etc.).

To conclude, we combined these four proposals to conceptualize the person-environment relationship (P-ER) in a theoretical framework to study the relationship between people and their environments. In particular, we wanted to discover theoretical causes and mechanisms of certain behavior by people in their residences, while maintaining the wealth of hypotheses about the P-ER formulated to date by other authors. The authors' attempt to integrate the above-discussed concept is shown in Figure 1.

We assumed, in line with authors like Wapner, Demick, Yamamoto, & Minami (2013), that a particular man-environment relationship is part of a larger socio-physical environment system in its totality, and that the system is in dynamic equilibrium. We proposed an additional fundamental assumption on the primary motivational mechanism which consisted in pursuing psychological equilibrium by the person living in the system. Psychological equilibrium, in our opinion, is a theoretical, static—thus impossible to achieve—infinitely short condition in which the body does not have to expend any energy through action (i.e. a condition lacking any needs, desires, aspirations, regret or anticipation). This is in the center of the theoretical continuum comparable to homeostasis (Cannon, 1963) or, more precisely, *homeodynamic regulation*, (Berntson & Cacioppo, 2007) with psychological satisfaction on one end, and no satisfaction on the other.

When the environment, for example a residence, is particularly ill-suited to a person (i.e. it fails to meet the conscious or unconscious needs and desires), the individual

suffers from a lack of psychological satisfaction. This lack is manifested by arousal, stress, overload and other similar conditions. Psychological balance is disturbed, and the individual becomes motivated to deal with changes in the environment, or to adapt themselves to the environment.

However, if the environment fits a person well (i.e. it meets the person's needs), the person feels psychological satisfaction. This condition manifests itself in a lack of arousal, in feeling satisfied and being relaxed. It should be noted, however, that neither state is perpetually sustainable, and energy is spent in both cases.

Considering the dynamics of human needs and environment volatility, the satisfaction-fit (as well as dissatisfaction-no fit) state can be either permanent or impermanent; Psychological balance is impaired in both cases. In the first one, an individual is motivated to introduce a change or perform an adaptation leading (at least) to the point of equilibrium (i.e. no need for further energy expenditure). In the other case an individual is motivated to maintain the positive state; at least enough so as not to exceed the equilibrium point toward dissatisfaction (which again would be need energy expenditure). The motivation to maintain psychological equilibrium may be caused by a human tendency to continually anticipate one's future emotions (Schwartz, 2013); for example, how will I feel if the environment for any reason fails to satisfy me as much as it does at the moment? As argued by Doliński and Łukaszewski (2000) human motivation manifests itself not only in the will to equalize, but also as a way to prevent the interference of, homeostatically maintained equilibrium.

Existence in extremes, that is, either in complete satisfaction or complete dissatisfaction, is energetically inefficient, because both states generate tensions associated with remoteness from the theoretical, "initial" state, the equilibrium. The energy cost results from the fact that increasing the distance from the equilibrium leads to, in accordance with motivation theories known today (Franken, 2002), the state of desire for something (e.g. satisfaction), or a desire to avoid something (e.g. grief, loss). In accordance with the least effort principle (Allport, 1954) the human mind seeks to optimize energy expenditure. If an organism can make a choice regarding energy expenditure, it—more or less consciously—will choose a solution which absorbs as little energy as possible, allowing it to stay possibly closest to the point of equilibrium.

Considering the above assumptions we have decided to check if and how the degree of man-environment fit (satisfaction) will be correlated with specific pro-social and civic behaviors (energy expenditure).

Indicators of person-environment fit (and therefore psychological satisfaction or dissatisfaction in the environment) may include: assessment of the environment expressed in questionnaires, statements concerning the past and future behavior in this en-

vironment, actual behavior of people or the accompanying physiological and emotional reactions like arousal, irritability, resentment, disgust, pain, boredom, calm, wonder, and awe. In the model proposed by Campbell et al. (1976) the declared sense of an individual's life quality may be a person-environment fit indicator. In this project the person-environment fit was indicated by: respondents' answers to the Perceived Residential Quality & Neighbourhood Attachment (Fornara, Bonaiuto, & Bonnes, 2010) questionnaire, adapted to Polish by Dębek and Janda-Dębek (2015), answers to the Polish language version of the international life quality questionnaire of the World Health Organization (2004), and also responses to the original Questionnaire of Activity in the Place of Residence created for our project (discussed in Appendix A).

Hypotheses

In the subject literature, relationship between the quality of residential environment (QoRE) and quality of life (QoL) were indicated repeatedly (e.g. Dębek & Janda-Dębek, 2013; van Kamp, Leidelmeijer, Marsman, & Hollander, 2003). These relations were generally considered to be linear, monotonic and positive. A detailed review of the results on the relations (Dębek & Janda-Dębek, 2013) indicated, however, that the empirical linear patterns in QoRE to QoL relations are not as common as expected. Perceived security of the environment was the only relatively universally validated QoL correlate. This observation was also confirmed in a recent Polish study on this subject (Dębek & Janda-Dębek, 2015). This is why we made a directional hypothesis:

QoL H1. Perceived security level in the area is positively associated with a sense of life quality.

Correlations between the remaining perceived living environment characteristics with the overall sensed quality of life were not obvious, therefore null hypotheses were made in their cases.

QoL H2. Architectural & Urban Planning Space has no connection with the declared sense of life quality.

QoL H3. External Connections have no connection with the declared sense of life quality .

QoL H4. Green Areas have no connection with the declared sense of life quality.

QoL H5. Internal Functionality has no connection with the declared sense of life quality.

QoL H6. Socialability has no connection with the declared sense of life quality.

QoL H7. Commercial Services have no connection with the declared sense of life quality.

QoL H8. Commercial Services have no connection with the declared sense of life quality.

QoL H9. Environmental Health has no connection with the declared sense of life quality .

QoL H10. Relaxing potential of the environment has no connection to the declared sense of life quality.

QoL H11. Stimulating potential of the environment has no connection with the declared sense of life quality.

QoL H12. Upkeep of the environment has no connection with the declared sense of life quality.

The above theoretical considerations of QoL and QoRE relations with the behavior of people in their areas of residence (BEH) also led us to the following hypotheses:

BEH H1. There is a curvilinear relationship between QoL and BEH.

BEH H2. There is a curvilinear relationship between QoRE and BEH.

No specific hypotheses were made regarding the results distribution in individual age groups because, as mentioned above, previous test results comparing the quality of life levels in seniors and others are inconclusive.

Previous studies on the quality of life of older people in various contexts (diseases, living in nursing homes, received support, physical activity, etc.) have been widely presented in the subject literature (e.g. Carmichael, Reis, & Duberstein, 2015; Fisher & Li, 2004; Orte, March, & Vives, 2007), but there are relatively few conclusive studies on relationships concerning the sense of seniors' life quality with the assessment about the quality of the inhabited environment.

Materials and Methods

A cross-sectional correlational study aimed to verify these hypotheses was conducted in Wroclaw in January-April 2015. Three questionnaires were used in the study: PL-APREQ & NA (Dębek & Janda-Dębek, 2015), WHOQOL-BREF (World Health Organization, 2004)² and the original Questionnaire of Social Activity in the Area of Residence developed specially for our project (see Appendix A).

² Questionnaire translated to polish by H. Baran-Furga, B. Harwat, K. Steinbartch-Chmielewska in 2004.

The assessment of the quality of environment and the quality of life

The PL-APREQ & NA and WHOQOL-BREF questionnaires have been published and discussed in detail in other articles (Dębek & Janda-Dębek, 2015; World Health Organization, 2004). Therefore, we will limit ourselves to only the most important information on these questionnaires.

PREQI & NA questionnaire (Fornara et al., 2010) is a tool to subjectively assess residential environment quality. In the Polish version PL-APREQ & NA, (Dębek & Janda-Dębek, 2015) there are 42 statements (13 thematic indexes) concerning five dimensions assessing the Perceived quality of residential environment and neighborhood attachment. Participants respond to statements on a seven-point Likert-type scale. In this research project an extended version of the tool was used, with additional questions about general neighborhood assessment: "Generally, how satisfied are you with the neighborhood where you currently live?" (rating from 0 to 6), as well as willingness to recommend the neighborhood to relatives as a good place to live, and willingness to move out from the neighborhood in the near future (both on a 7-point Likert-type scale).

The WHOQOL-BREF, a 27-item questionnaire for assessing quality of life is a well-established tool for measuring self-assessed life quality, including perceived somatic, psychological, social and environmental life quality. Each index comprises a few questions about subjective perception of a person's life quality. Subjects provide their answers on five-point Likert-type scales that, depending on the question, include answers "not at all" and "completely", "very poor" and "very well", "very dissatisfied" and "very satisfied", and so forth.

Self-assessed behavior – A Questionnaire of Social Activity in the Residential Area

This original questionnaire³ consisted of 13 items related to five areas of pro-social and civic behavior: defense of the territory (area of residence), initiating neighbor relations, political activity, cooperation in the area of residence and doing favors for the neighbors. The respondents described their position with respect to the statements using the five-point Likert-type positions. A description of the questionnaire's theoretical basis, a list of items, and statistic details can be found in Appendix A.

Participants and sampling

We have analyzed two groups of city residents: young adults up to 30 years of age (group A) and seniors (group B) above 65 years of age. The study included a total of 62 people (39 women and 23 men) aged 18 to 85 ($M = 48$, $SD = 26.63$). Group A consisted of 32 people (17 women and 14 men) aged 18 to 28 years ($M_A = 22$, $SD_A = 1.92$), group B consisted of 32 patients (22 women and nine men) aged 65 to 85 ($M_B = 74$, $SD_B =$

³ Questionnaire constructed by authors. For psychometric properties of the questionnaire – see Appendix A.

4.57). The respondents reported secondary education (N = 25), first cycle (N = 22) and second cycle higher education (N = 13), and had lived in an area being the subject of the study for an average of 21 years ($M_A = 7$ years; $M_B = 31$ years). These were convenience samples—day, evening and extramural students from the Historical and Pedagogical Sciences Faculty at the University of Wrocław as well as University of the Third Age students at the University of Wrocław.

Procedure

The study was conducted in university lecture rooms. Participation in the study was entirely voluntary and no physical incentives were used. The subjects were asked to complete three questionnaires described above. The whole procedure took about 20 minutes.

Results

Contrary to our expectations, we did not observe a universal and unequivocal relationship of perceived safety in the inhabited area with somatic, psychological, and social QoL aspects. Moderate relationships occurred only in the case of somatic life quality, and only when all respondents were considered (Table 1). The relationship was not statistically significant in groups A and B when analyzed separately. Thus, the QoL H1 hypothesis was partially substantiated.

Among other aspects of QoRE, only socialability and stimulating potential proved important to QoL, and exclusively in connection with the QoL somatic aspect. Among all the respondents no other relations were found, which substantiates most of the null hypotheses of the QoL series (Table 1). However, separate analyses of groups A and B showed that QoRE and QoL relations are more complex and may be dependent on the individual’s age or – more broadly – life situation (Table 2).

Table 1
Correlations between the quality of the environment (QoRE) and quality of life (QoL)

	QoL Somatic	QoL Psychological	QoL Social
QoRE Security	.29*		
QoRE Socialability	.28*		
QoRE Stimulating potential	.29*		

Note. N = 62. Intercorrelations of indexes (Spearman’s Rhos) are presented in the table. The only significant correlations (except marked as *ns*) are shown to improve readability. ** $p \leq .01$, * $p \leq .05$

Table 2

Correlations between the quality of residential environment (QoRE) and the quality of life (QoL) by respondent's age.

	Young Adults (A)			Seniors (B)		
	QoL Som.	QoL Psych.	QoL Soc.	QoL Som.	QoL Psych.	QoL Soc.
QoRE Architectural & Urban Planning Space		.36*	.40*			
QoRE Internal functionality	.36*	.41*				
QoRE Green areas		.54*				
QoRE Relaxing capability			.37*	ns	ns	ns
QoRE Environmental Health			.36*			
QoRE Security	.29*					
QoRE Socialability	.28*					
QoRE Stimulating potential	.29*					

Note. Young Adults (Group A) N = 31, Seniors (Group B) N = 31.

Intercorrelations of indexes (Spearman's Rhos) are presented in the table.

The only significant correlations (except marked as *ns*) are shown to improve readability.

** $p \leq .01$, * $p \leq .05$

When examining QoL we noticed that the life quality of young adults and seniors did not differ significantly psychologically. Statistically significant but small differences were observed in the social and somatic areas (Table B2). A statistically significant, moderate difference was also observed in the overall, single measure assessment of quality of life – $F(1.61) = 11.13$, $p > 0.01$, $\omega^2 = .14$: seniors assessed their overall life quality significantly lower than young adults.

We did not observe the assumed curvilinear relationship between QoL and BEH. BEH H1 has been falsified. Generally, the relationship between QoL with BEH was moderately positive and related to the psychological sphere of life quality and behavior connected with interpersonal contacts and mutual favors (Table 3). Analysis of the dispersed results indicated that these relationships were linear. These relationships looked completely different for seniors and young adults (Table 4). Behaviors most commonly associated positively (and linearly) with the quality of life were trying to establish neighborly relations (“I am usually first to chat up the neighbors”, “I always try to get to know my neighbors”). Interestingly, in seniors these behaviors were related to other areas of life quality than in young adults. In seniors almost all social and civic residential area activities positively correlated relatively strongly and in linear fashion with the psychological quality of life.

Table 3

Correlations between behavior in the place of residence (BEH) and quality of life (QoL)

	QoL Somatic	QoL Psychological	QoL Social
BEH Initiating contacts		.30*	
BEH Neighbor favors		.30*	

Note. N = 62. Intercorrelations of indexes (Spearman’s Rhos) are presented in the table. The only significant correlations (except marked as *ns*) are shown to improve readability. ** $p \leq .01$, * $p \leq .05$

Table 4

Correlations between behavior in the place of residence (BEH) and quality of life (QoL) by the age of respondents.

	Young Adults (A)			Seniors (B)		
	QoL Som.	QoL Psych.	QoL Soc.	QoL Som.	QoL Psych.	QoL Soc.
BEH Defense of the territory						
BEH Initiating contacts	.46**		.39*		.43*	
BEH Political activity					.41*	
BEH Cooperation for the neighborhood					.40*	
BEH Neighbor favors					.43*	

Note. Young Adults (Group A) N = 31, Seniors (Group B) N = 31. Intercorrelations of indexes (Spearman’s Rhos) are presented in the table. The only significant correlations (except marked as *ns*) are shown to improve readability. ** $p \leq .01$, * $p \leq .05$

We did not observe the assumed curvilinear relationship between QoRE and BEH. BEH H2 has been falsified. Overall, we observed two weak, positive, linear relationships of behaviors associated with initiating contact, with the perceived architecture quality and the living environment’s social potential (Table 5). The results were very interesting when broken down by group. Relationships between QoRE and BEH are different and may even accept reverse directions depending on the age of the respondents (Tables 6 and 7).

Table 5

Correlations between behavior in the place of residence (BEH) and the quality of the environment (QoRE)

	QoRE	
	Architectural & Urban Planning Space	Socialability
BEH Initiating contacts	.27*	.27*
BEH Neighbor favors	.28*	

Note. N = 62. Intercorrelations of indexes (Spearman’s Rhos) are presented in the table. The only significant correlations (except marked as *ns*) are shown to improve readability. ** $p \leq .01$, * $p \leq .05$

Table 6

Correlations between behavior in the place of residence (BEH) and the quality of the environment (QoRE) among young adults (A)

	QoRE						
	ArchUrb	IntFun	Green	Security	Social	Relax	EnvHealth
BEH Defense of the territory							
BEH Initiating contacts	.53**	.41*	.40*	.56**	.36*	.38*	.47**
BEH Political activity							
BEH Cooperation for the neighborhood	.37*			.36*			.36*
BEH Neighbor favors	.65*			.43*			.47**

Note. Young Adults (Group A) N = 31

ArchUrb = Architectural & Urban Planning Space, IntFun = Internal functionality, Green = Green areas, Security = Security, Social = Socialability, Relax = Relaxing capability, EnvHealth = Environmental Health. Intercorrelations of indexes (Spearman's Rhos) are presented in the table.

The only significant correlations (except marked as *ns*) are shown to improve readability.

** $p \leq .01$, * $p \leq .05$

Table 7

Correlations between behavior in the place of residence (BEH) and the quality of the residential environment (QoRE) among seniors (B)

	QoRE						
	ArchUrb	IntFun	Green	Security	Social	Relax	EnvHealth
BEH Defense of the territory							
BEH Initiating contacts							
BEH Political activity		-.37*		-.40*			
BEH Cooperation for the neighborhood							
BEH Neighbor favors							

Note. Young Adults (Group A) N = 31

ArchUrb = Architectural & Urban Planning Space, IntFun = Internal functionality, Green = Green areas, Security = Security, Social = Socialability, Relax = Relaxing capability, EnvHealth = Environmental Health. Intercorrelations of indexes (Spearman's Rhos) are presented in the table.

The only significant correlations (except where marked as *ns*) are shown to improve readability.

** $p \leq .01$, * $p \leq .05$

The results indicated that the correlation between pro-social and civic behavior with the perceived quality of the environment occurs primarily in young adults. Similarly, concerning interdependence of the perceived environment quality with the perceived life quality, in young adults the relationships were more frequent and stronger. Interestingly, political activity of seniors was negatively correlated with two aspects QoRE; it seemed that the only factors that motivate seniors are discomfort and various deficits. Such interdependence is not evident in young adults, who incidentally engage

in incomparably less political activity than seniors; Political activity in young adults was close to zero ($M = .45$ $SD = 1.65$ at a scale of 0-10), and significant in seniors ($M = 5.80$ $SD = 3.18$). Young people were much less active in all areas of behavior (Table A3).

Conclusions

Despite the theoretical assumptions about the impact of environmental assessment on life quality, the results of our study regarding such a relationship are inconclusive. Neither the general feeling of life quality nor its psychological dimension was related to satisfaction with any dimension of environment quality across all respondents; most null hypotheses we have made support this discovery. We also failed to substantiate the hypothesis regarding the positive directional relationship of overall feeling of life quality, and primarily its psychological aspect, with the assessment of safety in the residence area.

An unexpected side-result was the failure to establish a clear relationship between life quality and the sense of security – the results of most previous studies (e.g. Czapiński, Sułek, & Szumlicz, 2011; Keul & Prinz, 2011; Mridha & Moore, 2011; Oktay & Rustemli, 2011; Perlaviciute & Steg, 2012) indicated that assessed security in the residence is probably one of the strongest predictors of the sense of life quality.

Particular significant correlations, such as the sense of life quality in a group of young adults with dimensions like socialability and stimulating potential are quite understandable. Assessing these environment dimensions involves, among other things, networking opportunities and possibilities for potential activity in a group of people, which for young residents—in need for activity and multiple contacts – may have tremendous importance and correlate positively with the sense of life quality.

If assessment of the quality of environment in any way correlates with life quality in a particular group, it is—judging by our results—more evident among young adults rather than seniors. Zero hypotheses were made indicating a general lack of relationships between most dimensions of environment quality with life quality. However, young adults demonstrated such correlations were significant. This could mean that modern young people attach importance to where they live, and care how their direct neighborhood looks and what it offers its inhabitants.

However, there is a completely different correlation between the sense of quality and pro-social or civic activity. Almost all significant correlations occurred exclusively in the seniors group. Seniors declared a higher sense of life quality and at the same time declared greater willingness to initiate contact, engage in political activity, cooperate for the benefit of the environment and doing favors for the neighbors. Considering that our study indicated, additionally, significantly higher social activity among seniors than young

adults, the results partially corresponded to those obtained by Czapiński and Błędowski (2014, p. 70) who, in their report on activity of seniors state that: "...the level of seniors activity turned out to be higher than expected based on stereotypical views. Seniors activity matches, if not surpasses, the activity of the younger generations."

Note, however, that while the activities surveyed in our study serve as good predictors of life quality among seniors, they may be completely inadequate to the life goals and desires of young people. Predictors of life quality for young people may involve activities of a different kind than those tested in this project. They may, for example, be more individualistic, such as: searching and finding an attractive partner; finding good, satisfactory work; and the possibility to achieve personal needs. It is therefore possible that young adults, in order to improve their quality of life, do not engage in behavior (or declare such behavior) which, generally speaking, benefits the environment. Therefore, as evidenced in our study, young adults actually refuse to engage in such behavior; pro-social behavior thus does not correlate with their quality of life.

One of the most important goals of our study was to verify hypotheses concerning the curvilinear relationship between pro-social and civic behavior and the assessment of environment quality. The relationships that emerged in our results do not confirm our prior hypotheses. Poor links between the two quality of environment dimensions and the two activity dimensions that emerge from all respondents had a positive and straight character. In contrast, the analysis performed in each group separately showed that in young adults all dimensions of environment quality correlated with activities like initiating contacts, doing favors for neighbors and cooperation that benefits the environment. In this group, no correlation was observed between the quality of the environment and political activity. Such correlation, however, appeared in the group of seniors, where satisfaction with the environment decreased the (declared) socio-political activity.

Negative correlations of perceived environment quality with seniors political activity in some way support our proposed person-environment fit theory. It turned out that the higher the perceived quality of environment in particular important dimensions (e.g. safety), the more senior citizens were willing to transfer the energy to other (perhaps) activities instead. However, the lower the environment quality, the more energy expenditure was declared in its favor – perhaps until needs were relatively satisfied. It is possibly a manifestation of our postulated mechanism homeodynamic regulation in relations with the place of residence.

Nevertheless, we cannot clearly determine whether the theoretical assumptions concerning the person-environment fit dynamics and the resulting human behavior are correct. Some evidence from this study as well as results from an unpublished study by Ilnicka (2015) suggest that the subject is well worth further research. In her field studies

(Ilnicka, 2015) conducted in late 2014 and 2015 in Wrocław, Ilnicka indicated that the higher the people rated environment quality (Market Square), the less willing they were to sign a petition to the city authorities requesting to beautify the space (adding additional landscape architecture elements which would serve the residents). In short: the more the environment was „good enough”, the less energy the respondents were willing to spend on its behalf, even if the expense would further improve the environment.

An interesting side-result of our study was the insignificant psychological differences between groups of young people and seniors in the sense of life quality (simultaneously with significant differences in the social and health spheres). Reduced life quality in the health and social spheres of seniors is quite obvious and corresponds with the aforementioned results by Czapiński and Błędowski (2014). Lacking differences between the two groups in their psychological outlook can be explained by the specificity of senior respondents, who were students at the University of the Third Age – naturally more active and highly educated than regular seniors in the Polish population.

Larger implications

Despite their ambiguity, the results open up possibilities for intriguing studies to verify the proposed man-environment fit theory based on the assumption of striving for psychological (and energy) balance. We have found some evidence to support an original theory, yet well-grounded in general psychology, concerning human behavior in the environment.

Although it was not the main goal, we have evidenced that in life quality studies and perceived residential environment quality it is well worth taking into account different age groups for comparison. We showed that some areas of life quality, and above all its relations with other activity spheres, significantly differ depending on the age of the respondents. Meanwhile, as indicated by demographers, the developed countries (particularly European), may expect the advent of the so-called *silver economy*—an economic situation with the growing number of seniors living longer and assuming the growing need to adapt residential areas to their needs and preferences (European Commission, 2015; Eurostat, 2012).

Limitations

Limitations of our study result mainly from non-probabilistic and few trials, making it unrepresentative. Additionally, while collecting statements about the sense of life quality or assessment of inhabited environment quality is worthwhile, behavioral studies involving collecting retrospective declarations or predictions of people seem to be far from sufficient. Actual behavior, rather than just declarations, should be the indicators for specific areas of behavior in the residence area.

Future research

In the future, the authors would like to focus on developing and further verifying the equilibrium-energy person-environment fit theory proposed in this study. A good idea would be to do an experimental or correlational study to verify its basic assumptions, either in controlled laboratory conditions, or directly in environments of real human activity. In both cases, we should concentrate on observing respondents' actual behavior, rather than declarations. Conducting such research seems possible and relatively simple. For example, attention should be directed to people's (all ages) actual political and social activity in various communities associated with their places of residence, such as communities or housing cooperatives.

Appendix A. Methodological details for Questionnaire of Activity in the Place of Residence (Kwestionariusz Aktywności w Miejscu Zamieszkania)

In the constructing this tool, we assumed that pro-social and civic behavior in the residence place are manifestations of social capital defined as active or potential activity of people in informal networks and institutions (Grootaert, Narayan, Jones, & Woolcock, 2004; Putnam, 2001). Naturally, the so-called bridging capital was considered in this context – openness, acceptance of diversity, cooperation with people outside the family or immediate circle of friends, etc. (Gandziarowska-Ziołocka, Średnicka, & Zyskowski, 2012). One cornerstone for building social capital, in addition to mutual trust and shared community standards, is people’s collaboration for the community (Gandziarowska-Ziołocka et al., 2012). Therefore, while creating a list of pro-social and civic behaviors, we sought inspiration in existing tools used to measure social capital. We used some ideas present in the World Bank’s multidimensional questionnaire of social capital (Grootaert et al., 2004), a special edition of the European Commission’s Eurobarometer (European Commission, 2005) and The Detroit Area Studies Series (Marans & Stimson, 2011). Initial (unpublished) questionnaire versions included 19 items. Eventually, after pilot surveys and internal cohesion analyzes of the critical indexes: territorial defense, neighbor contacts, political activity, cooperation in the area and favors for the neighbors, the questionnaire comprised 15 items, which are presented in Table A1. Respondents rated each item on a five-point Likert-type scale (“definitely not” – “definitely yes”). Detailed statistics (including the distribution of variables) from the survey discussed in this article are presented in Tables A2 and A3.

Table A1

Activity in the Place of Residence Questionnaire

Index	Items	α	R_{cc}
1 Defense of the territory		.89	
	I take appropriate action when I hear people making noise in my area.		.74
	I reprimand people who litter up my area of residence.		.75
	When someone destroys buildings, staircases, sandpits, lawns and other elements of my surroundings, I protest.		.82
	We strongly react when I see someone destroying greenery in my area of residence		.87
2 Neighborly contacts		.88	
	I always try to get to know my neighbors.		.78
	I am usually the first to initiate conversation with my neighbors.		.78
3 Political activity		.87	
	I vote in elections to community councils.		.78
	I attend the meetings of my community / housing cooperative.		.78
4 Cooperation for the neighborhood		.80	
	I take an active part in the work to change my area.		.70
	In the last 12 months I cooperated with close or distant neighbors.		.70
	In the last 12 months, I took part in a protest or supporting action.		.62
5 Neighbor favors		.70	
	I happen to help my neighbors if they have any problem.		.54
	I happen to do small favors for my neighbors.		.54

Note. α Cronbach's α ; R_{cc} – corrected item-total correlation (item-rest correlations);

Table A2

Activities in the Place of Residence Questionnaire Statistics

	Min	Max	M	SD	Sk	Ku	K-S	K-Sp	α
1 Defense of the territory	0	.13	5.54	2.86	.43	.59	1.15	.13	.89
2 Neighborhood contacts	0	10	4.46	2.40	-.12	-.59	1.07	.20	.88
3 Political activity*	0	10	3.12	3.69	.67	-1.14	2.24	.00	.87
4 Cooperation for the neighborhood*	0	10	1.79	2.45	1.66	2.31	1.83	.00	.80
5 Neighbor favors	0	10	5.35	2.43	-.37	-.21	1.02	.24	.70

Note. Valid N = 62; * Non-normal distributed data;

Min = minimum, Max = maximum, M = mean, Sk = skewness, Ku = kurtosis, K-S = Kolmogorov-Smirnov Z, K-Sp where H0 states that the distribution is normal; α = Cronbach's α

Table A3

Activities in the place of residence and age of the respondents

	Young adults (A)				Seniors (B)			
	Min	Max	M	SD	Min	Max	M	SD
1 Defense of the territory ^a	0	8	4.54	2.11	0	.13	6.54	3.18
2 Neighborhood contacts ^b	0	.6	3.32	1.95	0	10	5.61	2.29
3 Political activity ^c	0	.9	.45	1.65	0	10	5.80	3.18
4 Cooperation for the neighborhood ^d	0	.3	.51	.85	0	10	3.06	2.85
5 Neighbor favors ^e	0	8	4.45	1.98	0	10	6.25	2.35

Note. Valid N = 62;

^a a statistically significant difference between the groups A and B: $F 8.50; p < .01; \omega^2 = .11$

^b a statistically significant difference between the groups A and B: $F 17.92; p < .001; \omega^2 = .21$

^c a statistically significant difference between the groups A and B: $F 68.99; p < .001; \omega^2 = .52$

^d a statistically significant difference between the groups A and B: $F 22.70; p < .001; \omega^2 = .27$

^e a statistically significant difference between the groups A and B: $F 22.70; p < .01; \omega^2 = .14$

Appendix B. Statistics on the perceived quality of life

Table B1

WHOQOL-BREF Statistics

	Min	Max	M	SD	Sk	Ku	K-S	K-Sp
1 Somatic	2.43	4.71	3.58	.53	.07	-.67	.64	.80
2 Psychological	2.17	5.00	3.69	.57	-.53	.57	1.14	.14
3 Social*	1.33	5.00	3.46	.70	-.78	.94	1.40	.03
4 Environmental	2.38	4.63	3.53	.47	-.31	.31	.82	.49

Note. Valid N = 62; * Non-normal distributed data;

Min = minimum, Max = maximum, M = mean, Sk = skewness, Ku = kurtosis, K-S = Kolmogorov-Simirnov Z, K-Sp where H0 states that the distribution is normal; α = Cronbach's α

Table B1

WHOQOL-BREF and the age of respondents

	Young adults (A)				Seniors (B)			
	Min	Max	M	SD	Min	Max	M	SD
1 Somatic ^a	2.86	4.57	3.76	.46	2.43	4.71	3.38	.54
2 Psychological	2.17	5.00	3.75	.61	2.17	4.50	3.63	.53
3 Social ^b	1.67	5.00	3.67	.67	1.33	4.33	3.25	.67
4 Environmental	2.38	4.64	3.58	.53	2.50	4.38	3.48	.42

Note. Valid N = 62;

^a a statistically significant difference between the groups A and B: $F 9.22; p < .01; \omega^2 = .12$

^b a statistically significant difference between the groups A and B: $F 6.32; p < .05; \omega^2 = .08$

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Multiwork, work-family/family-work conflict and satisfaction with life

Abstract

The aim of my study was to determine what relations exist between work and family demands, W-F/F-W conflict and job satisfaction, satisfaction with marriage, and life satisfaction among multiworkers and monoworkers. Research involved 218 multiworkers and 218 employees with single employment, who filled out a survey, the Organizational Climate Questionnaire, the W-F/F-W Conflict Technique, the Job Description Questionnaire, the Marital Communication Questionnaire, and Satisfaction with Life Scale. From the data obtained referring to multiworkers, it is shown that W-F conflict is directly affected by the number of working hours, commuting time, job demands, rewards, and leave control. F-W conflict is directly affected by number of children aged up to six years, partner engagement, and the number of children aged 12–15 years. Satisfaction with life results from satisfaction with marriage and job satisfaction (stronger relationship). Considering the monoworkers, W-F conflict is directly affected by the number of working hours, commuting time, and the rewards at work. F-W conflict is directly affected by engagement of the partner and the depreciation in the relationship. Satisfaction with life results from satisfaction with marriage (stronger relation) and job satisfaction. These results contribute to deeper knowledge on the multiwork phenomenon.

Keywords

multiwork, W-F/F-W conflict, satisfaction with job, marriage, life

Streszczenie

Celem badań było sprawdzenie, jakie zależności zachodzą pomiędzy wymaganiami w pracy i wymaganiami w rodzinie, konfliktem P-R/R-P a satysfakcją z pracy, małżeństwa i życia wielopracowników i monopracowników. W badaniach uczestniczyło 218 wielopracowników oraz 218 pracowników z pojedynczym zatrudnieniem, którzy wypełniali: ankietę, Kwestionariusz Klimatu Organizacyjnego, Konflikty: Praca-Rodzina i Rodzina-Praca, Arkusz Opisu Pracy, Kwestionariusz Komunikacji Małżeńskiej, Skalę Satysfakcji z Życia. Z otrzymanych danych, odnoszących się do wielopracowników wynika, że na konflikt P-R bezpośredni wpływ wywierają liczba godzin pracy, czas dojazdu, wymagania i nagrody w pracy, oraz kontrola czasu wolnego. Na konflikt R-P bezpośrednio wpływają liczba dzieci w wieku do 6 lat, zaangażowanie partnera oraz liczba dzieci w wieku 12–15 lat. Satysfakcja

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z życia jest wypadkową satysfakcji z małżeństwa oraz satysfakcji z pracy (silniejszy związek). W przypadku monopracowników na konflikt P-R bezpośredni wpływ wywierają liczba godzin pracy, czas dojazdu, nagrody w pracy. Konflikt R-P podlega bezpośrednim oddziaływaniom: zaangażowanie partnera oraz deprecjacja w związku. Satysfakcja z życia jest wypadkową satysfakcji z małżeństwa (silniejszy związek) oraz satysfakcji z pracy. Powyższe rezultaty przyczyniają się do pogłębienia wiedzy na temat samego zjawiska wielopracy.

Słowa kluczowe

wielopraca, konflikt praca-rodzina/rodzina-praca, satysfakcja z pracy, małżeństwa, życia

Introduction

Contemporary changes that occur in the socio-economic area pertain mainly to the labour market and employment. While fordism-taylorism adhered to regular working hours, distinct separation of working time and spare time, and long-lasting employment in the same company at the same or similar post (Inagami 1998/1999), in the 1980s there appeared some innovative solutions both in employment forms and in working time schedules. The work world entered the period of flexible working hours, flexible employment forms, and protean careers, or multiwork. The latter phenomenon has been functioning in Poland for more than 80 years (as early as the 1930s over half of the professionally active population worked additionally in farming), yet the character of multiwork has been subjected to a significant transformation in the labour market.

Multiwork is defined as providing work or performing tasks for at least two independent subjects, within a regular job and/or flexible employment forms (Lipińska-Grobelny, 2014). It should be noted that multiwork is broader than multi-job and is not identical with so-called hybrid employment, which means accumulating self-employment by one staff worker or non-staff employee, but all forms taking place at the same workplace (Cudowski, 2007).

A contemporary multiworker relies on his/her knowledge, improves qualifications permanently, and he/she is ready to undertake numerous jobs not because it is necessary but most often because it is a way to confirm one's own professional value. Analysing the character of multiwork renders it possible to indicate two independent approaches to performing work for more than one employer: the specialization approach and the diversification approach. The former one pertains to persons who realise their extra employment within some definite specialist qualifications (e.g. an academic teacher holds classes at various universities). Whereas the diversification approach describes those workers who use their numerous professional experiences and qualifications (e.g. the

already mentioned academic teacher is at the same time the owner of a personal guidance company).

In the current article multiwork has been limited to a number of employers and due to its co-occurrence with a high working-hours burden, which affects various areas of functioning (Lipińska-Grobelny, 2014), it has been decided to present what relations exist between work and family demands, W-F/F-W conflict and job satisfaction, satisfaction with marriage, and life satisfaction.

The research issues

The starting point for the research was provided by the integrated model by A. McElwain, K. Korabik, and H.M. Rosin (2005), which includes all the variables applied in the current article. The model's authors have assumed that family demands (e.g. having children, their number, and age) intensify the family-work conflict (F-W), which affects job satisfaction, while job demands (working hours, number of jobs, and worktime demands) influence work-family conflicts (W-F) and satisfaction with family. Life satisfaction presents a function of job satisfaction and family satisfaction (see Figure 1).

Figure 1.

The integrity model by A. McElwain, K. Korabik & H.M. Rosin (2005)

WORK DEMANDS

(number of working hours, job positions) ---> W-F conflict ---> satisfaction with family



LIFE SATISFACTION

FAMILY DEMANDS

(children – age, safekeeping) -----> F-W conflict ----> job satisfaction



Źródło: Zalewska, A. (2008). Konflikt praca-rodzina – ich uwarunkowania i konsekwencje. Pomiar konfliktów. [Work-family conflict – their determinants and consequences. The measurement of conflict], (w:) L. Golińska i B. Dudek (red.). Rodzina i praca z perspektywy wyzwań i zagrożeń. [Family and work from the perspective of threats and challenges]. Łódź: Wydawnictwo UŁ, s. 412.

In 2000 J.G. Grzywacz and N.F. Marks carried out tests in a group of 948 women and 1038 men, aged 25–62. Conclusions drawn by the authors have great significance for the issues presented. Among family demands the major source of conflict is assigned to the following: a) having a partner (it intensifies the W-F conflict in men), b) having

children (it intensifies the F-W conflict in women and men), c) support from husband or wife, which lowers the F-W conflict in both genders, but W-F conflicts this support is significant for men only. Moreover, family discord (d) and criticism (e) heighten the W-F and F-W conflicts among both women and men. As far as job demands are concerned, it is observed that conflict experience is strictly related to working hours (this variable heightens the W-F conflict in women and men and the F-W conflict in women only). Additionally, the W-F and F-W conflicts become more intense with pressure and weak support from co-workers and little freedom in decision making (low autonomy).

Studies conducted by S. Geurts, D. Beckers, T. Taris, M. Kompier, and P. Smulders (2009) indicate that while contract hours and overtime contribute to growing work-family conflicts, commuting time does not influence conflict intensity. Furthermore, leave control directly lowers the intensity of the W-F conflict, whereas flextime control does not exert a direct impact upon conflict intensity, yet it presents a mediating variable between working hours and the W-F conflict.

A relation between work and family demands, W-F/F-W conflict and job satisfaction and marital satisfaction is also indicated by Ł. Baka (2012), who confirms that job demands in the form of interpersonal conflict, organizational limitations, and work burden, intensify the W-F conflict and affect low job satisfaction. Whereas, family demands in the number of children, family duties burden, do not influence the F-W conflict, yet they directly weaken satisfaction with marriage. B. Lachowska (2012) also confirms a relation between job demands and the W-F conflict and between family demands and the F-W conflict. Moreover, the author mentions a role played by the organizational climate which helps to realise job duties and thus weakens the work's negative influence upon functioning in family roles.

Considering the research results, job demands have been limited in this article to the following variables that characterise work conditions: autonomy, control, namely, leave control (having influence upon holiday dates, days-off) and flextime control (possibilities of deciding about when to start and finish work), satisfaction with working time division, support at work, work demands, motivational system evaluation, evaluating the organization and its management, working hours, and commuting time (to work and home). Whereas family demands pertained to the following variables that describe a family: number of children, children's ages, working spouse, support, engagement, and depreciation in the relationship.

Other variables from the integrated model by A. McElwain, K. Korabik, and H.M. Rosin – the W-F and F-W conflict – were defined according to the approach by R.G. Netemeyer, J.S. Boles, and R. McMurrian (1996). They claim that the W-F and F-W conflict presents role disharmonies, where general demands, devoted time, and tension that are related to performing one role (e.g. the professional role) make it more difficult

to perform another role (e.g. the family role). As for satisfaction with varied spheres, focus was put on cognitively evaluating life satisfaction as understood by E. Diener, R.A. Emmons, R.J. Larsen, and S. Griffin (1985). According to these authors, life satisfaction pertains to a general satisfaction with one's achievements and living conditions. In job satisfaction, its evaluation was also limited to the cognitive dimension, according to O. Neuberger and M. Allerbeck, that is, to a general satisfaction with work (Zalewska, 2003). The third examined area pertained to marital satisfaction evaluated cognitively concerning what a person thought about his/her marriage, and how he/she perceived relations with the partner (Liberska & Matuszewska, 2001).

A survey concerning multiworkers shows their convictions about higher work diversity levels, a stronger sense of freedom (becoming independent from one employer), and work-life balance with a support from family members (Lipińska-Grobelny, 2014). Pointing to survey results, A. Sołtys (2008, p.464) writes that multiworkers treat multiwork as *'a possibility, an option, a fortunate twist of fate, and (...) they will not give up multiwork until they have enough strength or until 'occasions' appear'*.

With consideration given to the model by A. McElwain, K. Korabik, and H.M. Rosin (2005) and the previously discussed research results, it has been decided to formulate the research hypotheses as follows:

H1. Job demands intensify the W-F conflict and affect satisfaction with marriage and life satisfaction among:

- a. multiworkers,
- b. monoworkers.

H2. Family demands intensify the F-W conflict and affect job satisfaction and life satisfaction among:

- a. multiworkers,
- b. monoworkers.

Method

Participants

The research procedure involved 218 multiworkers (109 women, 109 men) and 218 workers employed at one workplace (109 women, 109 men). Comparing the two groups required similar conditions and selected demographical variables (the only difference cannon). The examined groups were not different as for age, total work experience, work experience at a given post, motives for starting a job, leave control, flextime control, and commuting time. Due to the major objective of the research – defining the relations

among the variables for multiworkers and monoworkers, the study included only those persons who were married and had at least one child (these are heightened risk factors for the occurrence of the W-F/F-W conflict, thus it was decided to control them).

The multiworkers' age ranged from 21 to 63 ($M = 41.79$; $SD = 9.59$), while age of workers with single employment ranged from 24 to 64 ($M = 42.42$; $SD = 9.23$; difference between the means was -0.63). The average work experience among multiworkers and monoworkers equalled 19 years, and the average work experience at a given post was about nine years in both groups. A marked majority of the participants represented double-income couples, where both spouses worked (88% multiworkers and almost 93% workers employed at a single workplace). Persons providing work for more than one employer most often had two children, while monoworkers had one child (the difference was not significant – $Chi^2 / df = 3 / 5.48$ $p > 0.1$).

Measurement tools

In order to verify the research hypotheses, six measurement tools were used. Job and family demands were measured with using a survey elaborated by myself, the Organizational Climate Questionnaire by D.A. Kolb, and the Marital Communication Questionnaire – evaluating the partner's behaviours by M. Kaźmierczak and M. Plopa.

The survey was the data source regarding the examinees' socio-demographic characteristics, their working hours per week, commuting time to work and home, leave control, starting time and finishing work controls, number and age of children, and the working spouse. The Organizational Climate Questionnaire (KKO) described the workplace's general characteristics such as support at work, demands, rewards at work, organization, management, and responsibility levels (a substitute for autonomy). An examinee assessed the particular work intensity using a ten-point scale. KKO reliability, computed according to the $KR\ 20$ formula adapted by Ferguson, was sufficient ($r_{tt} = 0.61$), (Chełpa, 1993). The Marital Communication Questionnaire (KKM) was used to get data regarding support in the relationship, partner engagement, and depreciation in the relationship. The KKM questionnaire has two versions: the first one deals with self-evaluating ones' conversational style, the second one evaluates the partner's communication style (used in the current study). An examinee uses a five-point scale to assess which behaviours and to what extent they pertain to himself/herself (the first version) and to the partner (the second version). Technique reliability was calculated in a group of 906 participants using Cronbach's α coefficient (for the second version of the partner's behaviours the coefficient equalled 0.91 for support, 0.80 for engagement, and 0.89 for depreciation), (Kaźmierczak & Plopa, 2005).

Work-life conflicts were measured with the W-F/F-W Conflict Technique by R.G. Netemeyer, J.S. Boles, and R. McMurrian. To assess satisfaction with varied spheres,

there were used the Job Description Questionnaire (AOP) by O. Neuberger and A. Allerbeck (general indication of job satisfaction and marital satisfaction) and the Satisfaction with Life Scale (SWLS) by E. Diener, R.A. Emmons, R.J. Larsen and S. Griffin. The Work-Family and Family-Work (W-F/F-W) Conflict Technique in its Polish adaptation by A. Zalewska measured the conflict's two directions, that is, the W-F and F-W conflict. The tool consists of a written instruction and ten statements that regard relations between family life and professional life. An examinee is asked to define his/her attitude to each statement using a seven-point scale. Research results for the tool's Polish version have confirmed its factor validity and external validity, as well as high measurement reliability (Cronbach's *alpha* was 0.94 for the W-F conflict and 0.80 for the F-W conflict), (Zalewska, 2008). The Job Description Questionnaire (AOP) allows for estimating satisfaction with job components, including satisfaction with working time, on a four-point scale, and general job satisfaction (applied in the current study), general satisfaction with marriage (another variable in the model), and life satisfaction, on a seven-point scale. Scale reliability for six components was high (Cronbach's *alpha* ranged from 0.84 to 0.92), and for the component Colleagues it was satisfactory (0.69), (Zalewska, 2001). Concerning general job and marital satisfaction measurements, differential validity was assessed (very strong correlations for five job categories – labourers, office workers, teachers, uniformed workers, artists), and theoretical validity (satisfaction with marriage was highly correlated with engaged communication assessed from one's own perspective and from the partner's perspective), (Lipińska-Grobelny, 2014; Zalewska, 2001). The final measurement was made with the five-item Satisfaction with Life Scale (SWLS) in the Polish adaptation by Z. Juczyński (2001). Cronbach's *alpha* coefficient was satisfactory ($r = 0.81$). A repeated examination after two months made it possible to achieve an equally high absolute stability ($r = 0.86$), (Juczyński, 2001).

Results

In order to analyse relations between job and family demands, the W-F/F-W conflict and satisfaction with job, marriage, and life, structural modelling was used. The analyses were made for raw scores using the Amos 20.0 programme. Estimating the structural model parameters was based on the maximum likelihood method, since the difference between distribution of the analysed variables and the normal distribution was small, that is, skewness and kurtosis were contained in the range $[-1;1]$. Matching the path models was based on a few indicators: the χ^2/df value (less susceptible to sample size and deviation from the normal distribution as compared to the χ^2 statistics), 2) goodness of fit index CFI, 3) the mean square root of the approximation error, and 4) the *PClose* level.

In searching for a well-fitted model, job demands (i.e. the autonomy level, control level, namely leave and flextime control; satisfaction with working time; support at work; work demands; evaluating the motivational system, organization and management; number of working hours; and commuting time) and family demands (namely, number of children, their ages: up to six years, 7–11, 12–15, 16–18, and 19 and more, working spouse, support, depreciation in the relationship, and also partner engagement) were treated as exogenous variables. The W-F/F-W conflicts, which constitute characteristics resulting from interactions between job and family demands, were given treated as endogenous variables. The same status was also owned by satisfaction with job, marriage, and life, as their variability was explained by an influence of both exogenous and endogenous variables (Gaul & Machowski, 2011). With consideration given to theoretical premises that result from the integrated approach by A. McElwain, K. Korabik, and H.M. Rosin, some variables were introduced that might affect levels of conflicts, satisfaction with job, marriage, and life among both multiworkers and workers with single employment. Next, paths were eliminated for which the coefficient of causal effect was nonsignificant (Gaul & Machowski, 2011).

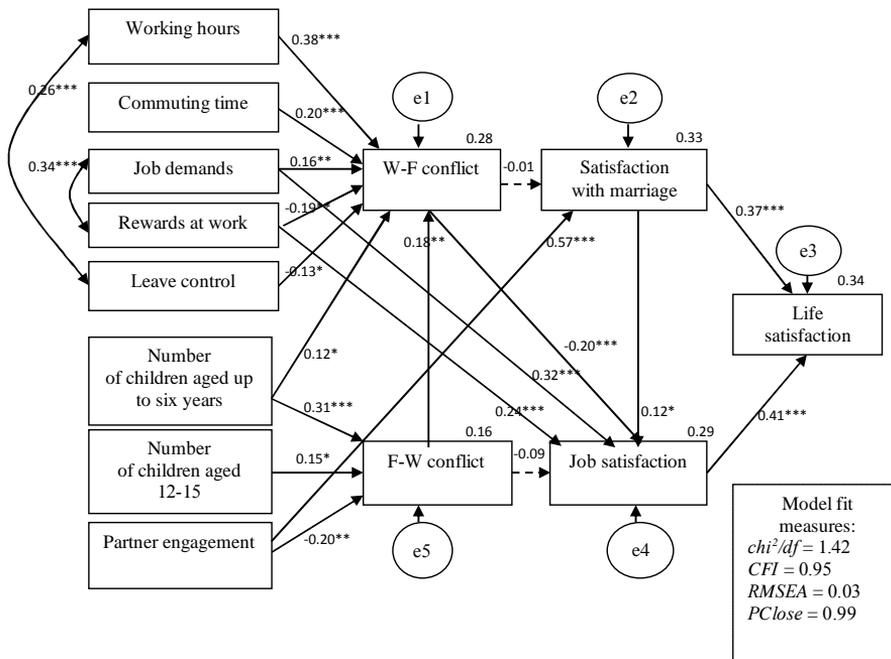
Below are presented the models that were characterized by the best fit indexes toward the empirical data. The arrows show the assumed causal relations among the variables. Next to the arrows coefficients of causal effect are placed for the standardized variables. Broken lines have been used to mark the relations that have appeared statistically nonsignificant. The arrows with two heads present correlations between variables, while values situated in an ellipse with the letter *e* represent hidden variables which mean the rest in the analysed model.

Job and family demands as related to the work-family/family-work conflict and satisfaction with varied spheres of life among multiworkers

In the Figure 2, structural equation modelling results are presented for multiworkers. The job demands that directly affect W-F conflict levels in this group are as follows: working hours (the most important variable), commuting time, demands, rewards, and leave control. The family demands that affect the F-W conflict are the following: number of children aged up to six years (the most important variable), partner engagement, and number of children aged 12–15. The number of children aged up to six years also contributes to a direct increase in W-F conflict intensity. For multiworkers, the W-F conflict affects job satisfaction, which significantly influences life satisfaction, whereas the F-W conflict affects job satisfaction indirectly by means of the W-F conflict. Satisfaction with marriage is directly influenced only by the partner engagement variable. Job satisfaction is also subjected to marital satisfaction influences, job demands, and rewards.

Figure 2.

Work and family demands, W-F/F-W conflicts and satisfaction with various life domains among multiworkers (standardized coefficients), (N = 218)



* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

While estimating the total impact exerted by particular factors upon satisfaction with life, it appears that the most important variables include satisfaction with marriage ($\beta = 0.42$, direct effect $\beta = 0.37$ and indirect effect $\beta = 0.05$), job satisfaction (direct effect only, $\beta = 0.41$), partner engagement (indirect effect only, $\beta = 0.25$), demands and rewards (each variable with indirect effect only, $\beta = 0.12$). The obtained model is well fitted to the data ($\chi^2/df = 1.42$, $RMSEA = 0.03$, $PClose = 0.99$, $CFI = 0.95$), and the paths contained in it are statistically significant. The variables included in the model render it possible to explain the 28% W-F conflict variability, 16% F-W conflict variability, 33% marital satisfaction variability, 29% job satisfaction variability, and 34% satisfaction with life variability.

Job and family demands as related to the work-family/family-work conflict and satisfaction with varied spheres of life among monoworkers

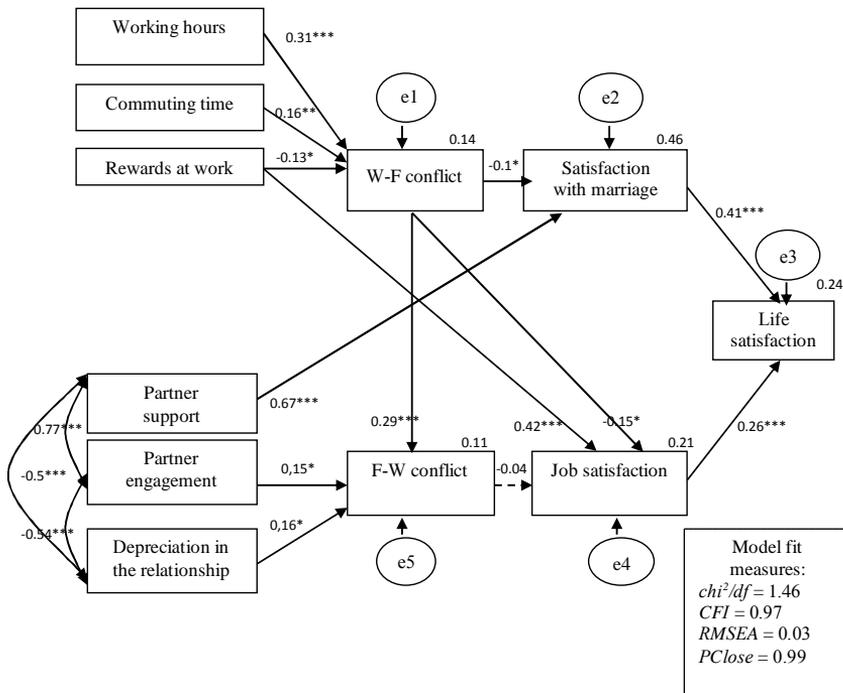
In the Figure 3, respective data are presented for workers employed at one workplace. In this case the job demands that directly affect the W-F conflict level are also the working hours (the most important variable), commuting time, and rewards at work, the latter having an impact upon job satisfaction as well. The family demands that are sig-

nificant for the F-W conflict among workers with single employment include partner engagement and depreciation in the relationship. Support in the relationship has a very strong impact upon the satisfaction level with marriage. It turns out that job demands intensify the W-F conflict and affect marital and life satisfaction, while family demands influence the F-W conflict, which remains nonsignificant for job satisfaction. The latter variable is significantly influenced by rewards and the W-F conflict.

While estimating the total impact exerted by particular factors upon satisfaction with life, it appears that the most important variables are satisfaction with marriage (direct effect only, $\beta = 0.41$), job satisfaction (direct effect only, $\beta = 0.26$), support in the relationship (indirect effect only, $\beta = 0.27$), and rewards (indirect effect only, $\beta = 0.12$). The obtained model is well fitted to the data ($\chi^2/df = 1.46$, $RMSEA = 0.03$, $PClose = 0.99$, $CFI = 0.97$). Variables included in the model make it possible to explain 14% W-F conflict variability, 11% F-W conflict variability, 46% marital satisfaction variability, 21% job satisfaction variability, and 24% satisfaction with life variability.

Figure 3.

Work and family demands, W-F/F-W conflicts and satisfaction with various life domains among monoworkers (standardized coefficients), (N = 218)



* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Discussion and conclusions

My study has examined how multiworkers and monoworkers functioning at work and at home affected their work-family/family-work conflict and their satisfaction with personal life and their job. The obtained research results have only partly confirmed my previously formed hypotheses. Concerning the multiworker, the work-family conflict is intensified because there is a high working-time burden, a growing commuting time (to work and home), high job demands, and also having small children (up to age six). This conflict is reduced by a motivating reward system at work and having some influence upon holiday dates and days-off (thus confirming the first part of hypothesis H1a). Whereas the family-work conflict undergoes intensification when multiworkers bring up children aged up to six or in their early adolescence, yet an engaged partner may help effectively in lowering the conflict (confirming the first part of hypothesis H2a). The latter variable's importance for a multiworker is evidenced by the results which show that an engaged spouse strengthens marital satisfaction, which affects job satisfaction.

Which job demands effectively improve job satisfaction in multiworkers? These are a stimulating, demanding job, yet with a sense of leave control and a well-designed rewards system. It ought to be noted that professional duties, an ambitious job, and participation in some interesting projects heighten the satisfaction, yet – at the same time – they contribute to an increase in the work-family conflict, which lowers job satisfaction (though this relation is weaker). Thus it is that a multiworker's life satisfaction is directly affected mainly by job satisfaction, and then by marital satisfaction, while job demands, rewards, and the engaged spouse have their indirect contribution to a positive general evaluation of one's life.

To sum up the results for monoworkers, it should be stated that working hours and commuting time also lead to collisions between job duties and family duties (confirming the first part of hypothesis H1b). Rewards are effective in lowering the W-F conflict and they strongly improve satisfaction with jobs in persons who have single employment. Thus, the family-work conflict is subjected to direct influences exerted by evaluating the partner engagement and depreciation in the relationship (confirming the first part of hypothesis H2b). While the direction of the latter relation seems obvious, the positive correlation between partner engagement and the family-work conflict is puzzling. It means – according to the obtained results – that while a multiworker expects engagement from the partner, which affects marital satisfaction directly, as it is likely to allow for effective coping with abundant duties, a monoworker expects mainly support in the relationship, and not engagement, as an overly-engaged spouse contributes to heightening family-work conflicts. This is an interesting difference between multiworkers and monoworkers, and it is worth further examination. As for life satisfaction in monoworkers, it also

depends on job satisfaction as well as marital satisfaction (a stronger relation), and also on support in the relationship and a rewards system at work.

My research was inspired by the integrated model by A. McElwain, K. Korabik, and H.M. Rosin (2005), which was partly confirmed both among workers with extra employment and among those with single employment. Firstly, job demands intensify the work-family conflict, and family demands intensify the family-work conflict (a conclusion beyond doubt). Furthermore, experiencing the W-F conflict is closely related to working hours (compare: Grzywacz & Marks, 2000) and commuting time, which may be perceived as prolonged work (for multiworkers the average commuting time to work and home was slightly higher than 60 minutes, for monoworkers it was almost 57 minutes). Secondly, satisfaction with life is a function of marital satisfaction and job satisfaction, though among workers with single employment it depends mainly on marital satisfaction, and for multiworkers on job satisfaction. Differences in the applied approach by A. McElwain, K. Korabik, & H.M. Rosin pertain to the influence of W-F conflict upon satisfaction with marriage and the F-W conflict on job satisfaction. Among multiworkers the assumed cross relations have not been confirmed at all. Among monoworkers these relations have been displayed for the W-F conflict and satisfaction with marriage (confirming the second part of hypothesis H1b).

The results presented above allow for formulating a few practical conclusions. Due to the fact that the work-family conflict exerts a significant impact upon job satisfaction among multiworkers and job and marital satisfaction among monoworkers, it is worth undertaking organizational activities that could contribute to lowering this conflict. D. Clutterbuck (2005) enumerated three areas of activity that improve relations between personal life and work: a) activities regarding working time, b) activities regarding a workplace, including also its localisation, c) activities regarding making it easier for a worker to decide whether to accept some help in taking care of children or dependent family members.

According to my results, it may be concluded that organisations should give leave control to their workers. Working hours are related to commuting time to work and home. Also in this case it is possible to negotiate with an employer to get more autonomy at work and to discuss partially working outside a company, which would limit commuting. The list of activities regarding a workplace, including also its localisation (list b) finishes with a good motivational system, which contributes to lowering W-F conflict intensity, and increasing greater job satisfaction and life satisfaction. The third category of organizational activities (list c) regards institutional forms of help for families who have children, especially children aged up to six and those in early adolescence (aged 12–15). An organization with a modern approach to personal issues and payment systems could give its workers a chance to choose within the package payment system,

namely, the so-called cafeteria payment, whether they want to use a subsidy for renting apartments, participate in training, sports activities, or in employing domestic help to undertake some housework, mainly taking care of small children. Various studies show that direct or indirect support for parents lowers workers' fluctuation and absence, reduces being late for work, and improves their ability to focus attention on work and their general efficiency (Clutterbuck, 2005). Such support ought to be applicable for parents of children at various ages, for example in the form of workshops for parents, subsidies for specialist guidance, and also programmes of holiday care for schoolers.

From the psychological perspective, such activities are surely worth undertaking, but are they profitable for organizations? Studies carried out for the last 25 years by the Gallup Institute show that companies which care for their workers achieve success faster and with lower costs; so it is indeed worthwhile (<http://www.gallup.com/services/177047/q12-meta-analysis.aspx>, access: 09.01.2016) and even necessary, as we must remember that '*organisations exist for people and through people, and not the opposite way*' (Bańka, 2000, p. 322).

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Relations between Parenting Stress, Attachment, and Life Satisfaction in Mothers of Adolescent Children

Streszczenie

Relacje przyczynowe pomiędzy stresem rodzicielskim, przywiązaniem i zadowoleniem z życia dotychczas poddawane analizie są traktowane wielokierunkowo w zależności od ich osadzenia w odmiennych ramach teoretycznych. Ponadto, relacje pomiędzy nimi zależą od wielu zmiennych, które mogą oddziaływać na analizowane relacje jako potencjalne czynniki zakłócające. W naszym badaniu podjęliśmy się analizy związku pomiędzy stresem rodzicielskim matek i ich zadowoleniem z życia zapośredniczonego poprzez jakość przywiązania, rozumianego, jako ogólna orientacja matki w bliskich związkach. Przywiązanie było przez nas traktowane jako rodzaj zasobów osobistych matek, który zgodnie z naszymi założeniami działa jak pryzmat wobec doświadczeń z własnymi dziećmi. Sformułowaliśmy trzy problemy badawcze: Czy relacja pomiędzy stresem rodzicielskim i zadowoleniem z życia matek jest mediowana poprzez jakość ich generalnego przywiązania? Czy mechanizm mediacji jest odmienny w zależności od tego, czy analizie poddamy wymiar niepokoju, czy unikania przywiązaniowego? Czy efekt mediacyjny jest wrażliwy na oddziaływanie potencjalnych czynników zakłócających? Analizie poddaliśmy dane zebrane od 575 matek nastoletnich dzieci przy użyciu narzędzi kwestionariuszowych. Wyniki wykazały, że związek pomiędzy stresem rodzicielskim i zadowoleniem z życia jest częściowo mediowany przez orientację przywazaniową matek oraz, że mechanizm ten jest nieco inny w zależności od tego, czy mediatorem jest niepokój, czy unikanie przywazniowe. Statystyczna analiza wrażliwości wykazała, że analizowane modele są wrażliwe na oddziaływanie potencjalnych czynników zakłócających, które mogą przyczynić się do wyeliminowania efektu mediacji. Testując poprzez analizę wrażliwości, czy status ekonomiczny oraz ilość dzieci mogą pełnić rolę potencjalnych czynników zakłócających wykazaliśmy, że żaden z nich nie ma wystarczającej mocy aby zmniejszyć analizowany przez nas efekt mediacyjny. Wyniki są przez nas omówione w kontekście ich znaczenia teoretycznego i praktycznego, przyczynowości pomiędzy zmiennymi oraz rekomendacji dla dalszych badań.

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Słowa kluczowe

zadowolenie z życia, przywiązanie, stres, zachowania rodzicielskie, mediacja

Abstract

Causal relations between parenting stress, attachment, and life satisfaction tested in previous studies are multidirectional, even though grounded in respective theories. Additionally, relations between them are dependent on multiple factors viable to act as potential confounders. We set out to analyze the relation between parenting stress of mothers and their life satisfaction as mediated through their general attachment orientations treated as personal resources hypothesized to act as the filter toward their parenting experiences. Three questions were asked: Is the parenting stress-life satisfaction link mediated through attachment? Does the mediation mechanism differ when attachment dimensions of avoidance and anxiety are analyzed? Is the mediation effect sensitive to potential confounding factors? Data from 575 mothers of adolescents were collected using self-reports. Results revealed that parenting stress-life satisfaction relation is partially mediated through attachment, and that the mediation mechanism is different when anxious or avoidant attachment dimensions are analyzed. Sensitivity analysis revealed that mediation models are sensitive to potentially confounding factors. Trying to tackle potential confounders, we tested economic status and the number of children the mother ever had. None of them had enough power to decrease mediation effects. Results are discussed in terms of theoretical and practical implications, causality, and recommendations for further research.

Keywords

life satisfaction, attachment, stress, parenting, mediation

Introduction

The search for predictors of life satisfaction is one of a main tasks in psychology and has a high value for individuals. These investigations are organized around various scientific fields (e.g., psychological, sociodemographic, or biological) and usually follow two paths of inquiry addressing positive life satisfaction correlates or factors decreasing its level. Among the negative correlates stress is considered as an important life satisfaction predictor especially in studies analyzing job satisfaction in life-threatening or demanding areas of employment. Parenting stress treated as the correlate of life satisfaction is studied less frequently. Moreover, these studies mainly tackle parenting stress of parents rearing children with disabilities (e.g., Dąbrowska, Pisula, 2010; Gray, 2002; Miranda et al. 2015; Pisula, 2003;) or focus on stress-generating family communication patterns (e.g., Kaźmierczak, Płopa, 2006).

In general studies lead to the conclusion that stress decreases life and job satisfaction (Cieślak, Widerszal-Bazyl, Łuszczynska-Cieślak, 2000; Myers, 2005; Derbis, Baka, 2011; Diener, 2013; Diener, Lucas, Oishi, 2002; Spector, Jex, 1998). Nonetheless its effect depends on various personal and social resources of individuals, like repressive defensiveness (DeNeve, Cooper, 1998), personality dimensions (Derbis, 2012), or work engage-

ment (Derbis, Baka, 2011). Among personal resources attachment quality gained some attention in previous studies which have shown that two attachment insecurity dimensions of avoidance and anxiety were associated with higher distress and lower emotional well-being levels (e.g., Carnelley, Pietromonaco, Jaffe, 1994). It means that low levels of both attachment dimensions characterizing individuals with secure attachment orientation correlate with higher life satisfaction and lower levels of stress. Nonetheless, in many of these studies, attachment is studied as the predictor of life satisfaction which effect is mediated through other personal variables, like character strengths (e.g., Lavy, Littman-Ovadia, 2011) or social axioms (Mak, Han, You, Jin, Bond, 2011). In stress-oriented studies, attachment is predominantly analyzed in terms of dyadic bond describing a particular (e.g., parent-child) dyad which is studied as being dependent on parental stress (e.g., Louie, Cromer, 2014). Then, retrospectively assessed early childhood attachment experiences of parents (with own parents) are also studied in adults as predictors of their parenting stress in relation with their children (e.g., Steele al. 2016). However, attachment defined as a mental representation of self and others in close relationships (Bartholow & Horowitz, 1991) in general also can be treated as one of individual resources which may mediate the effect of other factors on life satisfaction (e.g., Hinnen, Sanderman, Sprangers, 2009). Thus, we set out in the present study to investigate the relation between parenting stress of mothers and their life satisfaction as mediated by their mental representation of attachment with close others in general. We hypothesized that insecure (avoidant and anxious) attachment general orientation of mothers will partially explain (mediate) the relation between their parenting stress and life satisfaction (General Hypothesis).

Life satisfaction and family

As we aim to investigate life satisfaction and its predictors in the present study, we will not consider constructs related with life satisfaction, like happiness, subjective well-being, or perceived quality of life discussed elsewhere (Derbis, 2000, 2007; Diener, 2012, 2013; Diener, Lucas, Oishi, 2002; Kowalik, 1993, 2000). It is worth noting here that within the positive psychology framework *subjective well-being* is defined through cognitive and emotional components. Emotional component addresses *happiness* as the outcome of balance between positive and negative affects. *Life satisfaction* in general is built on perceived meaning of life which needs continuous reflection regarding personal goals and reasons of failures and success (Campbell, Converse, Rodgers, 1976; Czapiński, 1994; Diener, Oishi, 2005; Diener, Seligman, 2002; Juczyński, 2001).

The search for sources of life satisfaction often follows the hedonistic bottom-up approach according to which people first assess the conditions in their lives, and then aggregat-

ing across conditions they arrive at an overall evaluation of their life satisfaction. Studies within this approach indicate that the family domain is one of the most important source for individual life satisfaction (Argyle, 2005; Czapiński, Panek, 2014; Deater-Deckard, Scarr, McCartney, Eisenberg, 1994; Diener et al., 2000; Diener, Seligman, 2002; Warr, Payne, 1982) setting the stage for the importance of studies targeting parenting stress and attachment orientations in a family. Research indicates that persons who are married (Glenn, Weaver, 1979; Inglehart, 1990), do not have children or have two or three preschool but not adolescent children (Glenn, Weaver, 1979; Amato et al. , 2003; Proulx et al., 2007) are happier than others (e.g., nonparents and divorced). However, results seem to depend on many factors.

Parenting stress

Parenthood may be a source of happiness but also may notably decrease well-being of parents. Parenting stress is considered in normative approach as the role-related stress (Seginer, Vermulst, Gerris, 2002) which in general involves parental emotional and behavioral responses to some unpleasant event(s) having multiple parameters that affect well-being (Crnic, Low, 2002). Parenting stress may be biased by multiple every day hassles, problematic family circumstances, or/and by singular adverse events. It can be also biased by parental disappointments indicated by discrepancies between parenting goals and child functioning (Szymanska, 2011). Nonetheless, despite caregiving responsibilities and demands being a source of pleasure and success, there are also everyday frustrations and failures which seem to be at the heart of defining the parenting experience with one's own children as stressful (Crnic, Low, 2002; Seginer et al., 2002). We define parenting stress in the present study not as the response to certain events but as a nonspecific state characterized by a general negative response (Seginer et al., 2002) indicated by a retrospective evaluation of own parenting experiences as problematic and a harder task than it was expected to be before becoming a parent.

Studies targeting child rearing stress are limited mostly to parents having small children (e.g., Seginer et al., 2002; Steele et al., 2016), stress related with every-day hassles, and refer not to general well-being of parents but to more narrow domains, like anxiety. Taking a more general perspective we aimed to investigate how parenting stress relates to mothers' nonspecific life satisfaction.

General attachment orientation as a personal resource

General attachment orientation refers to the internal working model of attachment (Bowlby, 1969/2007) defined as the mental model of self as worth of love and attention

from close others, and the model of close others as loving and providing care, safety and comfort in times of stress (Bartholomew, Horowitz, 1991). Even though this orientation develops through experiences with particular close others (e.g., the mother), it is generalized after infancy to close others in general and serves as a kind of a template for all close relations throughout life. The model develops in the first year of life through behavioral priming of infant's brain by constantly repeated cycles of infant's signals-caregiver's (un)sensitive responses. At later stages of life the model guides at the automatic (unconscious) level our responses and expectations in close relations (e.g., Siegel, 1999). This attachment mental model is similar to, yet not the same as the personality trait (Nofhle, Shaver, 2005) which quality predicts child adjustment, quality of close relationships in adulthood (e.g., Mikulincer, Shaver, 2007) and life satisfaction (e.g., Guarnieri, Smorti, Tani, 2015; Ma, Huebner, 2008).

Complementing the above cognitive perspective, attachment can also be studied as the behavioral system which regulates our emotional responses in times of stress (Mikulincer, Shaver, 2007). From this perspective, stress activates neural circuits triggering the need for closeness with the close other to attain security. Due to the quality of early caregiver-child relations individuals differ in their attachment quality, which is reflected in the attachment-based stress response pattern. Individuals with secure attachment in times of stress seek proximity with close others. They have both low, attachment avoidance and anxiety levels (Bartholomew, Horowitz, 1991). Taking the categorical (not dimensional) approach to attachment (e.g., Lubiewska & van de Vijver, 2014), this stress-derived response pattern characterizes individuals classified into autonomous/secure attachment pattern (Ainsworth et al., 1978; George, Kaplan, Main, 1985). Insecure individuals hyperactivate or deactivate the need for closeness in response to stress (Mikulincer & Shaver, 2007). Individuals with high level of attachment anxiety hyperactivate (boost) the need for closeness, experience both intensive emotions and stress response (Mikulincer & Shaver, 2007). These individuals are classified into the anxious-ambivalent/preoccupied attachment pattern (Ainsworth et al., 1978; George et al., 1985). Individuals with high level of attachment avoidance deactivate, suppress the closeness need, avoid proximity, are self-reliant and deny the stress experience, the problem and own need for closeness (Mikulincer & Shaver, 2007). They also have lower access to their emotions at the explicit level (overview in Lubiewska, 2016). These individuals are classified in the anxious-avoidant/dismissing attachment pattern (Ainsworth et al., 1978; George et al., 1985). It is worth noting that the dimensional approach defining individual differences in attachment in terms of attachment avoidance and anxiety has been shown recently to be more adequate and valid than the categorical approach classifying the individual into one of four attachment classes (e.g., Lubiewska & van de Vijver, 2014; van IJzendoorn & Bakermans-Kranenburg, 2014).

Contextual embeddedness of the stress-life satisfaction link

Life satisfaction, parenting stress, attachment or relations among them (like other psychological constructs) do not depend on a single domain, nor do they operate in a vacuum. First, perception of family as a source of life satisfaction depends on various factors, like: economic status of the family (Conger, Conger, Martin, 2010) and the country's economic situation in which family exists (Inglehart, Foa, Peterson, Welzel, 2008), the number of children or their characteristics, formalized or informal form of intimate relationships the couple maintain (Angeles, 2010), work-family balance (Clark, 2001; Derbis, 2013, 2014; Zalewska, 2011), religiosity, family values (Sabatier, Mayer, Friedlmeier, Lubiewska, Trommsdorff, 2011) and other factors affecting the family-to-life satisfaction link. Furthermore, these relations are not necessarily linear. For example, affluence of the country relates to higher life satisfaction of individuals but only to a certain level after which the increase in affluence is not translated into increase of life satisfaction of individuals (Easterlin, 1974; Myers, 2007).

Then, the association between parenting and well-being also depends on various factors (Nelson, Kushlev, Lyubomirsky, 2014). Effects of parenting stress on life satisfaction seems to be less complex. Yet, parenting stress is related with parental well-being differently, depending on child characteristics, social and individual resources of the parent (Pisula, 2003; Solem, Christophersen, Martinussen, 2011) and other contextual factors (Crnic, Low, 2002). In opposition to folk theories (at least those in the Polish culture) suggesting that “small children are a small problem, big children are a big problem”, studies indicate that child age does not change the level of parenting stress (Wheatley, Wille, 2009).

Research hypotheses

Although setting the causal relations in cross sectional studies among constructs assessed at the participants' mental representation (self-reports) level is not possible, we tested in the present study the mediation model based on the bottom-up approach to life satisfaction assuming that at first people assess the conditions in their life – in our study they summarize their stress related with parenting efforts – and then they evaluate their life satisfaction. We additionally assumed that implicitly operating and explicitly assessed mental representation of attachment orientation will to some extent act as the filter through which parenting experience is screened and affects life satisfaction (*General Hypothesis*).

As we define attachment through the level of hyperactivating (anxious) and deactivating (avoidant) tendencies which set the stage for different functioning of anxious and avoidant individuals, we also assumed that attachment dimensions of anxiety and avoidance will mediate the parenting stress-life satisfaction link differently. In particular,

complementing the general hypothesis proposed so far, we formulated two detailed and one more explorative hypotheses.

First, we expected that parenting stress will predict stronger maternal attachment anxiety than avoidance (*Hypothesis 1*). Stress triggers unpleasant affects and feelings and activates coping strategies in individuals. These strategies are different for anxious and avoidant individuals. Anxious individuals are aware of stress, reveal a tendency for rumination, while avoidant individuals suppress stress experience and are more unaware of unpleasant feelings or tension (e.g., overview in Lubiewska, 2016; Shaver, Mikulincer, 2008). Therefore, we expected that the level of parenting stress will have stronger explanatory power toward attachment anxiety than toward attachment avoidance.

Then, we hypothesized that maternal attachment avoidance will predict stronger her life satisfaction than her attachment anxiety (*Hypothesis 2*). As avoidant individuals deny distress, are unaware of the whole range of their emotions, and see rather negative than positive aspects of their experiences (e.g., Lubiewska, 2016), we expected that maternal avoidance stronger than her attachment anxiety will explain her life dissatisfaction.

Furthermore, taking into account causal relations between studied constructs which cannot be disentangled in our cross-sectional study, and regarding the theoretically driven multiplicity of factors viable to act as confounding variables toward the mediation model under study, we tested whether any potential confounding variable may cancel out mediation effects presumably found in our study. If results of the sensitivity analysis support this notion, we will test the last hypothesis assuming that economic status of the family and the number of children mother ever had will eliminate the mediation effect found in our study (*Hypothesis 3*). Both contextual conditions have been evidenced in previous research as influencing life satisfaction, attachment and parenting stress (e.g., Angeles, 2010; Conger, Conger, Martin, 2010; Emmen et al., 2013; Kahneman, Krueger, 2006).

Method

Sample

The study is part of the cross-cultural project “Value of Children and Intergenerational Relations” [VOC study] (Trommsdorff & Nauck, 2005). This is a three-generation study (including adolescents, their mothers and maternal grandmothers).

The Polish VOC sample was collected between 2006–2009 in urban and rural South-East, North-East, South-West, and North-West Poland and comprised 575 families with mothers and adolescent children (between the ages` of 14 and 17). Only data collected from 575 mothers were analyzed in the present study. The mean age of mothers

was 43.06 ($SD = 5.24$). Economic status of the family reported by mothers was $M = 2.98$ ($SD = .73$) in the range from 1 (low economic status) to 5 (upper economic status).

Procedure

Mothers were interviewed by trained interviewers. The interviews lasted between 60 and 90 minutes and were carried out mostly at the homes of the respondents or in locations indicated by respondents.

Measures

Individual economic status

Participants evaluated their economic status by comparing their situation to perceived economic status of other people living in their country using a 5-point Likert scale from (1) "low" to (5) "upper". The score from the mothers' reports was used in our study.

Attachment

Attachment was assessed by the Adult Attachment Scale (AAS, Collins & Read, 1990), referring to a general (not relationship specific) mental representation of attachment indicated by the dimensions of *anxiety*, *closeness*, and *dependence*. The study carried out by Lubiewska and van de Vijver (2014) on three generations revealed that the AAS structure is better represented by avoidance and anxiety factors which correspond to the dominating conceptualization of adult attachment. *Anxiety* relates to worry about abandonment, dislike, doubts about availability of others in times of need (e.g., "People are never there when you need them."). *Avoidance* indicates lack of comfort related with being close with attachment figure (e.g., "I am somewhat uncomfortable being close to others.") and lack of confidence in the dependability of others (e.g., "I find it difficult to trust others completely."). Low attachment anxiety and avoidance levels indicate secure attachment. The direction of wording in the AAS instrument implies that the outcome score indicates the level of insecurity (if avoidance and anxiety are combined) or avoidance and anxiety. Mothers rated the items on a five-point Likert scale ranging from (1) indicating low to (5) indicating high agreement. Reliability coefficients for avoidance (alpha of .80; omega of .81) and anxiety (alpha of .71; omega of .73) subscales were acceptable. The correlation between avoidance and anxiety factors was .64 indicating substantial overlap between both factors.

Parenting stress

The *Child Rearing Stress Scale* developed for the Dutch longitudinal study "Parents, adolescents, and young adults in Dutch families: A longitudinal study" (e.g., Gerris et al., 1998) was used to assess parenting stress of mothers. Respondents rate their agreement on a five-point Likert scale from (1) not true at all to (5) very true, to the three following questions: (1) Raising my child has brought about more problems than I had

expected; (2) Raising my child is harder than I thought it would be; (3) Raising my child frequently causes problems. Reliability coefficient of the scale was good (alpha and omega of .89).

Life satisfaction

Life satisfaction was measured by five questions assessing the domain-specific and one general (domain unrelated) satisfaction with life. The general life satisfaction was measured by one item from the Satisfaction With Life Scale (e.g., Diener et al., 2000): „All things considered, how satisfied are you with life as a whole these days?“ The four Domain-specific items (friendships, health, school, and family) came from Henrich and Herschbach’s (1995) instrument. Reliability coefficient of the scale was acceptable (alpha of .71; omega of .72).

Results

Statistical analysis. As analysis of our data revealed violation of multivariate normality assumption, we used mathematical transformations of data and based the main analyses on robust statistics. First, causality assumptions of mediation related with significance of model paths were tested in three steps using parametric regression LM method and robust tests applied to observable variables (mean values of subscales). Then, we tested the main mediation hypothesis using structural equation modeling.

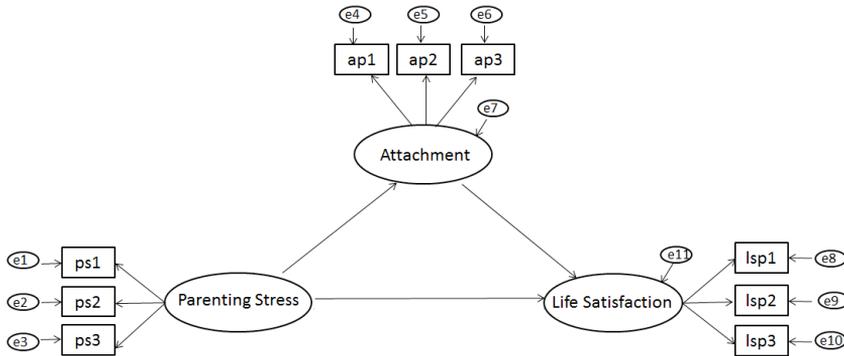


Figure 1. Mediation statistical model explaining life satisfaction of mothers by their parenting stress through maternal mental representation of attachment.

The general statistical model tested in our study is presented in Figure 1. The exogenous variable and both endogenous variables were tested as latent factors comprising three observable variables each. Parenting stress was indicated by three items (ps1-ps3), whereas scales assessing life satisfaction and attachment were multi-item instruments. As increase in the number of indicators decreases the number of degrees of freedom

in the Structural Equation Modeling analysis (SEM), we decided to reduce the number of attachment and life satisfaction parameters to be estimated in our model by the item parceling procedure based on the item-to-construct balance method (e.g., Little, Cunningham, Shaher, Widaman, 2002). As a result three parcel-indicators were formed for attachment (in)security (ap1-ap3), and for life satisfaction (lsp1-lsp3) latent factors.

Analyses of correlations between the study variables presented in Table 1 revealed high relations between attachment avoidance and anxiety. Thus, before we proceeded with the main analyses we tested whether high correlation between both attachment dimensions is problematic when both attachment latent factors are included in one structural model. High correlation may cause collinearity problems affecting inflation, reduced stability, power and increased standard errors in parameter estimates of the model (Cohen, Cohen, West, Aiken, 2003). Nonetheless, separation of attachment avoidance and anxiety effects was important for testing hypotheses in the present study. To test these we ran a series of mediation models with both mediators and found problematic results biasing erratic conclusions about relations between variables (due to space limitations and the number of analyses carried out these results are not reported here). Therefore we decided to proceed in further analyses with two separate models testing our mediation hypotheses: Model 1 with the attachment avoidance mediator; and Model 2 with the attachment anxiety mediator.

Table 1.

Descriptive Statistics and Correlations between Variables

Variables	Parenting stress	Attachment		Life satisfaction
		Avoidance	Anxiety	
Parenting stress				
Atta. Avoidance	.18			
Atta. Anxiety	.27	.64		
Life satisfaction	-.22	-.23	-.34	
M	2.27	2.53	2.33	3.94
SD	1.01	.69	.69	.54

Note. All correlations are significant at $p < .001$.

Furthermore, as the use of regression analyses (including SEM) in mediation models rely on unstable assumptions (Imai, Keele, Tingley & Yamamoto, 2011) addressing causal inferences assumed in mediation, yet rarely tested in studies, we extended our study by sensitivity analysis testing Hypothesis 3. Unstable assumptions in mediation address causal relations tested in mediation models which are hypothesized but often-times not possible to evidence in terms of the intermediate effects between them. It is as-

sumed in mediation analyses that there are any confounding variables which could affect variables included in the outcome (X and Y) and mediator (X and M) path models. This assumption is oftentimes unrealistic and rather not tested in mediation analyses. For example, we can assume that parenting stress affects parental life satisfaction but we cannot be sure whether both are not affected by the third variable. For example maternal stress and life satisfaction may depend on the economic situation of the family (financial constraints might explain both, higher parenting stress and lower life satisfaction). In fact, as was indicated already in the introduction, many such confounding variables could be listed, as well as studies carried out to look for variables which might eliminate mediation effects found in the main study. Yet, these time-consuming analyses might lead to the simple conclusion that any variable under investigation is viable to act as the confounder canceling out the mediation effect in the main model under investigation. The sensitivity analysis answers the question whether there is any confounding variable which is viable to eliminate the mediation effect. When the sensitivity analysis provides a positive answer to this question, further investigation addressing these variables is supported (otherwise it is rather a waste of time in an empirical sense).

Carrying out the sensitivity analysis we quantified the degree of sequential ignorability assumption violation in our mediation model. The analysis tests whether our mediation model would hold if such a confounding variable would be included in our mediation model. Such an omitted variable (confounder) is treated as the variable related with the outcome-mediator, the mediator-predictor, and outcome-predictor models and is indicated by a correlation between error terms of model variables. If sequential ignorability assumption of mediation analysis is met, these correlations shall equal zero in magnitude. If not, sensitivity analysis gives back the values of error terms correlation due to a potential confounder (*rho* parameter) at which our mediation effects would be insignificant (if such a sensitive region exists).

If sensitivity analysis runs in our data would reveal that results of mediation analyses are sensitive to effects of potential confounding variables we will run the same mediation models (Models 1 and 2) with covariates (Models 1a and 2a) which we hypothesize may operate as confounding variables in our model. In this part of the analysis two demographic variables theoretically important for the mediation model tested in our study, namely the economic status of mothers and the number of children she ever had were tested. Carrying out these analyses we will answer the question whether family economic status and the number of children the mother ever had have sufficient power to deflate the mediation effect in our models. All analyses were based on robust statistics (Satorra, Bentler, 1988) and were carried out using ‘lavaan’ (Rosseel, 2012) and ‘mediation’ R packages (Tingley, Yamamoto, Hirose, Keele, Imai, 2013).

Assumptions for mediation

Three steps are needed before proceeding with the main mediation analysis. First, we have to confirm the significance of relationship between X and Y variables (step 1). Then, the same assumption has to be supported for the relation between X and the mediator variable M (step 2). Finally, the relation between M and Y shall be supported (step 3). Our analyses revealed that all three assumptions were met in our data for Model 1 (path coefficients' values: $-.22, p < .001$ for step 1; $.18, p < .001$ for step 2; and $-.23, p < .001$ for step 3) and for Model 2 (path coefficients' values: $-.22, p < .001$ for step 1; $.27, p < .001$ for step 2; and $-.34, p < .001$ for step 3).

Mediation

First, we tested Model 1 with attachment avoidance as the mediator between parenting stress and life satisfaction of mothers. The model fit parameters of this model presented in Table 2 were good. Results of our analysis run in Model 2 with attachment anxiety as the mediator yielded relatively worse however still good model fit parameters. Model 1 yielded to be more parsimonious (AIC) and fitting better to our data than Model 2.

Table 2.

Fit Model Parameters for Mediation Model Explaining Maternal Life Satisfaction by Her Parenting Stress Through Maternal Mental Representation of Attachment

SEM MODELS	df	χ^2	RMSEA	CFI	AIC
Mediation models					
Model 1	24	33.421	.026 (.001; .045)	.994	11226.623
Model 2	24	40.123	.034 (.015; .051)	.990	11654.915
Mediation models controlling for confounders					
Model 1a	37	81.680	.044 (.030; .057)	.977	14270.504
Model 2a	37	95.116	.052 (.040; .065)	.966	14702.808

Note. All indexes were calculated using Satorra-Bentler correction. All χ^2 estimates were significant at the level of $p < .001$. Model 1 – attachment avoidance as mediator. Model 2– attachment anxiety as mediator.

Comparison of path coefficients, shown in Table 3 (and visualized at Figure 2), across both models indicated some differences between models for avoidance and anxiety as mediators. In line with Hypothesis 1, parenting stress explained better attachment anxiety (4% of variance for path a in Model 2) than attachment avoidance (3% of variance for path a in Model 1). Similarly, low maternal life satisfaction was explained better by her attachment avoidance (5% of variance for path b in Model 1) than anxiety (3% of variance for path b in Model 2) supporting Hypothesis 2. Even though these differences are not sizable in magnitude (probably) due to the overlap between anxiety and avoidance indicators in the AAS instrument, these results are in line with the attachment

theory. Aside from these (minor in our study) differences between both models, partial mediation effect holds across both models supporting our general hypothesis indicating that the effect of maternal parenting stress on her life satisfaction depends to some extent on the level of her attachment insecurity. In particular, parenting stress of mother moderately and negatively predicts her life satisfaction. However, when maternal attachment avoidance or anxiety in close relations in general is controlled for, maternal parenting stress operates only as a weak negative predictor of maternal life satisfaction.

Table 3.

Effects in Mediation Model Explaining Maternal Life Satisfaction by Her Parenting Stress Through Maternal Mental Representation of Attachment

Effects	Coefficient			
	Unstandardized	SE	Standardized	95% CIs
Model 1 ($R^2 = .19$)				
Parenting stress (a)	.17***	.03	.27	.11; .24
Atta. avoidance (b)	-.22***	.04	-.36	-.31; -.15
Indirect (a*b)	-.04***	.01	-.09	-.06; -.02
Total [$c = c' + (a*b)$]	-.11***	.02	-.27	-.16; -.07
Direct (c')	-.07***	.02	-.18	-.11; -.03
Model 2 ($R^2 = .16$)				
Parenting stress (a)	.19***	.03	.29	.12; .26
Atta. anxiety (b)	-.18***	.05	-.31	-.28; -.10
Indirect (a*b)	-.04***	.01	-.09	-.06; -.02
Total [$c = c' + (a*b)$]	-.11***	.02	-.27	-.15; -.06
Direct (c')	-.07**	.02	-.18	-.12; -.03

* $p < .05$; ** $p < .01$; *** $p < .001$.

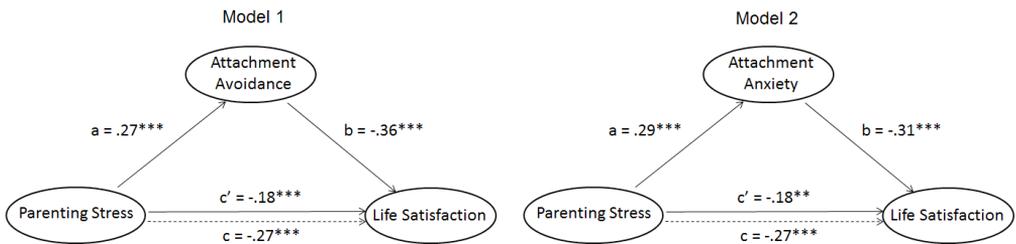


Figure 2. Path coefficients and model fit parameters for mediation models with avoidance (Model 1) or anxiety (Model 2) as the mediators.

Sensitivity analysis

Results of sensitivity analysis revealed that the average causal mediation effect (ACME) found in our Model 1 is sensitive to a confounding variable at ρ value $-.30$ at which ACME equals zero. For the direct effect the same ρ value is $.50$. Similar results were found for Model 2, where ρ value at which ACME equals zero was $-.24$, and for the direct effect ρ was $.58$.

Table 4.

Effects in Mediation Model Explaining Maternal Life Satisfaction by Her Parenting Stress Through Maternal Mental Representation of Attachment Controlling for Confounding Variables (Family Economic Status and Number of Children Mother ever had)

Effects	Coefficient			95% CIs
	Unstandardized	SE	Standardized	
Model 1a ($R^2 = .22$)				
Parenting stress (a)	.17***	.03	.26	.10; .23
Atta. avoidance (b)	-.19***	.04	-.32	-.28; -.11
ES (d)	-.10	.06	-.08	-.21; .02
ES (e)	-.12**	.04	-.15	-.21; -.05
ES (f)	.09***	.03	.18	.03; .13
Children (g)	-.10*	.00	-.11	-.18; -.02
Children (h)	.01	.00	.01	-.03; .04
Indirect (a*b)	-.03***	.01	-.08	-.06; -.02
Total [$c = c' + (a*b)$]	-.10***	.02	-.25	-.15; -.05
Direct (c')	-.07**	.02	-.17	-.11; -.03
Model 2a ($R^2 = .20$)				
Parenting stress (a)	.19***	.03	.29	.13; .26
Atta. anxiety (b)	-.17***	.04	-.29	-.26; -.09
ES (d)	-.10	.06	-.08	-.21; .02
ES (e)	-.02	.04	-.02	-.09; .07
ES (f)	.11***	.02	.22	.06; .15
Children (g)	-.10**	.00	-.11	-.17; -.02
Children (h)	.01	.00	.02	-.03; .04
Indirect (a*b)	-.03***	.01	-.09	-.06; -.02
Total [$c = c' + (a*b)$]	-.10***	.02	-.25	-.14; -.05
Direct (c')	-.06**	.02	-.17	-.11; -.02

* $p < .05$; ** $p < .01$; *** $p < .001$.

The results of sensitivity analyses evidenced that both models are sensitive to a potential confounding variable. Thus, we tested further our data by introducing demographic variables into both models which we assumed to act as the theoretically good candidates to introduce changes in our model parameters deflating mediation effects.

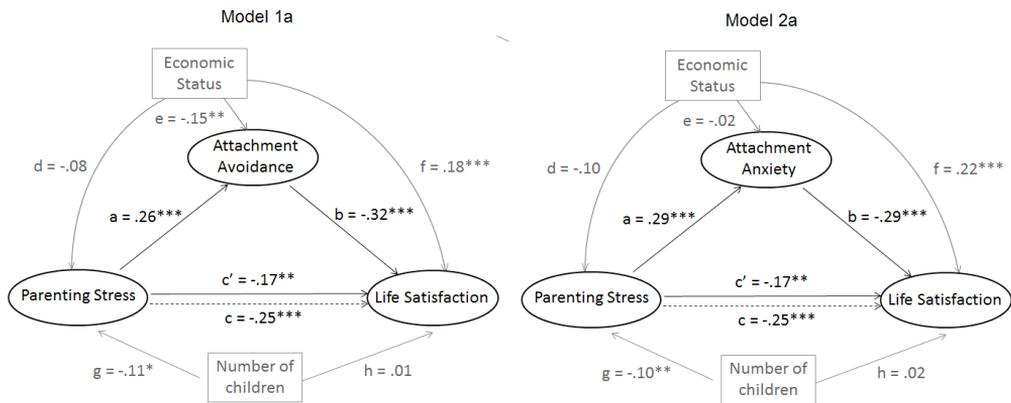


Figure 3. Path coefficients and model fit parameters for mediation models with attachment avoidance (Model 1a) or anxiety (Model 2a) as the mediators controlling for confounding variables (economic status of family and number of children mother ever had).

Results of our analyses of Models 1a and 2a with two additional (potentially confounding) variables are presented in Table 4 (and visualized in Figure 3). As indicated in Table 2 model fit parameters for Models 1 and 2 were superior to model fit indices for Models 1a and 2a. Comparison of path coefficients in both groups of models (Figures 2 and 3) indicates that economic status (having a weak significant effect on attachment and life satisfaction) and number of children (having a weak effect on maternal parenting stress) tested in our study as potential confounding variables in the mediation model, decreased the marginally direct and indirect effects not affecting the significance of mediation effects.

Discussion

We set out in our study to test the extent to which (General Hypothesis) and the mechanism through which parenting stress explains life satisfaction of mothers via their mental representation of attachment (Hypotheses 1 and 2), and whether this mediation effect can be canceled out if other (e.g., contextual) variables would be controlled for (Hypothesis 3).

Our results revealed that the relation between parenting stress of mothers and their life satisfaction is partially mediated through their (in)secure mental representation of attachment in close relations. Furthermore, we also found that the mediation model tested in our study is sensitive to (not defined) confounding causal variables omitted in our theoretically derived model. Carrying out the sensitivity analysis we revealed the region of both, mediation and direct effects as sensitive to violation of the sequential ignorabil-

ity assumption, and quantified the size of correlation caused by the omitted variable in which our mediation model would become insignificant. Extending this analysis, we tested two demographic variables –economic status of mothers and the number of children they ever had – which we assumed to be theoretically likely to operate as potential omitted confounding variables. Nonetheless, we revealed that both do not have sufficient power to reduce the mediation effect to an insignificant level in our study.

How attachment buffers parenting stress-life satisfaction link

Parenting stress of mothers was found in our study as a moderate negative predictor of their life satisfaction. This relation was assumed as partially operating through maternal representation of attachment in close relations. This expectation was supported in our study. Maternal mental representation of attachment seems to work to some significant extent as a buffer between maternal parenting stress and her life satisfaction. Although causal relations are difficult to settle in our study as well as within theoretical background, it seems possible that the perception of high parenting stress by the mother may be filtered through her insecure attachment mental representation decreasing her life satisfaction. Yet further, preferably longitudinal studies, are needed to investigate causal relations between parenting stress, attachment, and life satisfaction.

What are the implications of these findings? First, although attachment and stress are studied as correlates with various causal relations, our study seems to indicate that attachment mental representation can be treated as a personal resource which mitigates or exacerbates effects of focal factors shaping life satisfaction, at least in the family domain. This mechanism can be used further in cognitive therapy focused on bottom up change of perception of life. Attachment unfolds, at least partially, why parenting stress decreases life satisfaction.

Furthermore, even though the attachment instrument used in our study does not sufficiently disentangle avoidance and anxiety attachment dimensions our analyses seem to shed more light on the processes underlining distinct patterns of affect regulation in insecure, anxious (hyperactivating) or avoidant (deactivating) individuals. According to the theory, avoidant individuals in times of stress deactivate, suppress the need for closeness, do not show stress explicitly but also are more prone to negative feelings about others, and less satisfied with their close relationships and life in general (e.g., Shaver, Mikulincer, 2008). This mechanism seems to be supported in our findings, where parenting stress was (marginally) a worse predictor of maternal attachment avoidance than of attachment anxiety. Then, in line with the attachment theory, we also found that attachment avoidance is relatively (although marginally) better predictor of life satisfaction than attachment anxiety.

Even though the mediating mechanisms seems to operate differently in relation between parenting stress and life satisfaction for avoidant and anxious mothers, it should be highlighted that the size of the mediation effect is not affected by individual differences in attachment of mothers in our study. This result is probably biased by high overlap between avoidance and anxiety instruments which did not allow for the theoretically sufficient distinction between avoidant and anxious tendencies of mothers participating in our study. However, we believe that the use of other than ours instrument assessing with better predictive validity individual differences in attachment strategies would support stronger conclusions in further studies about different mechanisms explaining life satisfaction in anxious and avoidant individuals.

Finally, it is worth noting that investigating the robustness of our mediation model we found that the model may not hold regarding the mediation effect when other omitted variables should be included in our study. This study revealed that even though economic status of the family and the number of children the mother ever had are related significantly with attachment, life satisfaction and parenting stress, both do not have sufficient power to cancel the mediation effect of attachment in the parenting stress-life satisfaction relation. Further studies are needed to indicate which variables included in the parenting stress-attachment-life satisfaction model may reduce the mediation effect. This result would be of high value for fields related with attachment-based therapy and health psychology.

Effects of contextual factors

Conclusions complementing our main findings which are worth noting refer to contextual factors tested in our study as confounders. Although, they did not diminish the mediation effects, we found that economic status reported by the mother (as compared to others) explained her life satisfaction. The better she estimates her economic situation, the more satisfied she is. This result is in agreement with the folk knowledge but also seems to be in line with the Family Stress Model (Conger, Conger, Martin, 2010; Neppl, Senia, Donellan, 2016). This model posits that economic hardship in the family is translated into marital discord and further parenting problems. Even though the maternal economic situation was found to be unrelated to parenting stress but with maternal life satisfaction, this finding seems consistent with the Family Stress Model when measurement issues are considered. Parenting stress was assessed retrospectively as the general negative estimation of parenting experiences, whereas the economic situation and life satisfaction were reported by mothers in the context of actual (not past) situation.

Interestingly, we also found that the low economic status reported by mothers predicted their higher attachment avoidance. This finding is partially in line with previous

studies analyzing adolescent-parent attachment where income predicted both attachment avoidance and anxiety (Rawatlal, Pillay, Kliewer, 2015).

Another interesting finding of our study addresses the effect of the number of children the mother ever had on her parenting stress. Although we did not find that the number of children increases life satisfactions as was revealed in previous studies (Angelis, 2010), we found a weak effect indicating that the more children the mother ever had, the less stressful her parenting is estimated to be. Experiences with more children in a family might trigger higher parenting self-esteem of mothers and underlie lower parenting stress and a more optimistic perception of her parenting experiences.

Limitations of the study

At least two problems limit conclusions to our study. First, we based our testing of the mediation hypotheses on cross-sectional data. This generates questions about the causality directions proposed in our study. Then, another limitation addresses instruments used in data collecting. Both scales, even though widely used in studies, have their weaknesses. The attachment instrument could differentiate a better avoidant and anxious dimensions core for individual differences in attachment (the original scale structure with anxiety, closeness and dependence has the same problem).

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Professional competences: Personality and Axiological Model (MOA) in verifying the sense of life quality

Streszczenie

Testowane w prezentowanym badaniu hipotezy zostały sformułowane w oparciu Model Osobowościowo-Aksjologiczny MOA B. Mróz, który zakłada, że poczucie jakości życia u pracowników wyższego szczebla jest uwarunkowane takimi wymiarami osobowościowo-aksjologicznymi, jak: struktura potrzeb, przystosowanie, osiągnięcia i wartości. W badaniach zastosowano: Test ACL, Wskaźnik Osiągnięć Zawodowych WOZ, Test Niedokończonych Zdań (RISB), Skalę Wartości Rokeacha oraz Kwestionariusz Poczucia Jakości Życia (KPJŻ). Za pomocą analizy regresji oraz równań strukturalnych oceniono wpływ badanych zmiennych. Okazało się, że model MOA różnicuje pracowników wyższego szczebla. Współczynnik determinacji uzyskał 47% wariancji wyjaśnianej zmiennej poczucia jakości życia w modelu strukturalnym (u kobiet 48%, u mężczyzn 39%). Tak znaczącą zmienność wyników poczucia jakości życia u pracowników wyższego szczebla można tłumaczyć związkiem cech osobowości i wartości.

Słowa kluczowe

Model MOA, kompetencje, osobowość, hierarchia wartości, jakość życia, specjaliści, płeć

Abstract

It was assumed that the sense of the quality of life would reveal a significant relationship with personality-related and axiological dimensions among specialists (the Personality and Axiological Model MOA). It was hypothesized that there would be a positive correlation between independent personality-related variables for the sense of life quality (structure of personality: competence, relations, autonomy, adaptation and professional achievements). The determination coefficient was 0.47, that is, its variance was 47% of the variable sense of life quality being explained in the structural model MOA; by women 48%, by men 39%. In the discussion on the obtained results, emphasis should be put on the significance ascribed by specialists to the following dimensions: adaptation, competence and relations for the quality of life.

Keywords

MOA model, competences, personality, hierarchy of values, quality of life, specialists, gender

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Introduction

The eudemonistic tradition present in works of psychologists such as H. A. Murray, G. Allport, C. Rogers or A. Maslow is identified in our times with concepts presented by C. Ryff, M. Seligman or M. Csikszentmihalyi. This tradition constitutes the foundation of the Personality and Axiological Model MOA, while hypotheses tested in the research were formulated based on R. M. Ryan and E. L. Deci's needs concept, J. Rotter's adaptation concept, M. Rokeach's values concept and B. Mróz' professional achievement indicators.

Each new academic paper has its sources, concepts and, above all, an idea. If one wanted to refer to the history and the present day of research on needs, it could be said that there is a bridge between Murray's and Ryan and Deci's theories. Undoubtedly, the determination of needs important for people, for their satisfactory functioning, was a considerable achievement of 20th century psychologists and, what is more important, these were empirical findings (Murray, 1938/2008; White, 1959; White, Lippitt, 1968; McClelland, 1985; Deci, Ryan, 1985). The finding, that, for instance, the need for autonomy or the need for perseverance is so important for achievements has contributed to the development of research on professionally active people and has brought about a number of changes in management practices, improving and supplementing managers' decisions which often were wrong. The development and cooperation between science and business in this field have been high-paced, and, it should be emphasized, to the benefit of both parties. If assessment of classification of management styles or a personality able to take a long-term effort under stress is possible thanks to well-tried and appropriate psychological tools, then the awareness and application of this knowledge by people responsible for companies functioning efficiently of are to be dealt with by contemporary entrepreneurs.

Theoretical foundations of the Personality and Axiological Model MOA

Verification of the Personality and Axiological Model MOA concerning the sense of life quality was performed on a group of senior employees. The model comprises a cohesive structure of interconnected variables. The MOA model was constructed in the first phase based on a confirmatory analysis and exploratory analysis of the main research tool which was the Adjective Check List (ACL). In our research on a group of professionally active adults and based prior factor analyses performed by A. Juros and P. Oleś (1993) the ACL data structure was verified. It turned out that after conducting a confirmatory analysis based on factors distinguished by Juros and Oleś, there was no good matching to data in the senior personnel group. The authors concluded that in order to make the right interpretation and diagnostic suggestions, separate analyses should be

performed each time on separate research groups (Juros, Oleś, 1993). The research concerned a student group ; so the next step would be to analyse a senior personnel group.

And so the exploratory factor analysis (EFA) was applied and next – a confirmatory factor analysis (CFA) in order to verify the data. Some researchers recommend performing analyses on separate samples; however, it is also allowed to perform them on the same group, in particular when the group is big, like the one we dealt with in this case (Zakrzewska, 1993; Konarski, 2009).

In exploratory analysis (EFA) the factors are unknown at the beginning and are distinguished in a random variable analysis, with no theoretical assumptions, while seeking new relations and new theoretical references. There are a number of factor analysis methods; however, the most popular include principal component analysis (PCA) and principal factor analysis (PFA). Irrespective of the method, factor analysis starts with by creating a correlation matrix and verification to find out whether factor analysis can be applied.

In our research, components in the ACL test were distinguished using the PCA method (Brzeziński, 1999; Zakrzewska, 1993). Results obtained by 552 persons in ACL test scales were analyzed, the scree plot was analyzed and its shape clearly pointed to three important components, which required at a later stage a three-factor solution; an analysis with the Promax rotation was then performed as it is an oblique rotation which does not assume nor require orthogonality, that is, independent individual factors.

In order to obtain the best possible matching to data, in the light of generally accepted matching criteria, scales whose factor loadings are smaller than 0.5 were excluded based on Alf Cronbach's reliability coefficients . The data were distinguished with using the principal component method – Promax rotation with Kaiser normalization. The three ACL components accounted for 66.29% of the variance, which is a significant result. The first component accounted for 34.62% of the variance, the second – 20.94%, while the third – 10.74%. The remaining factors, starting from the fourth inclusive, distinguished only from 3 to 0.13% of the variance.

The distinguished components have both moderately even saturated initial variables in individual factors (as illustrated by the factor loadings) as well as having clear and sharp psychological meaning.

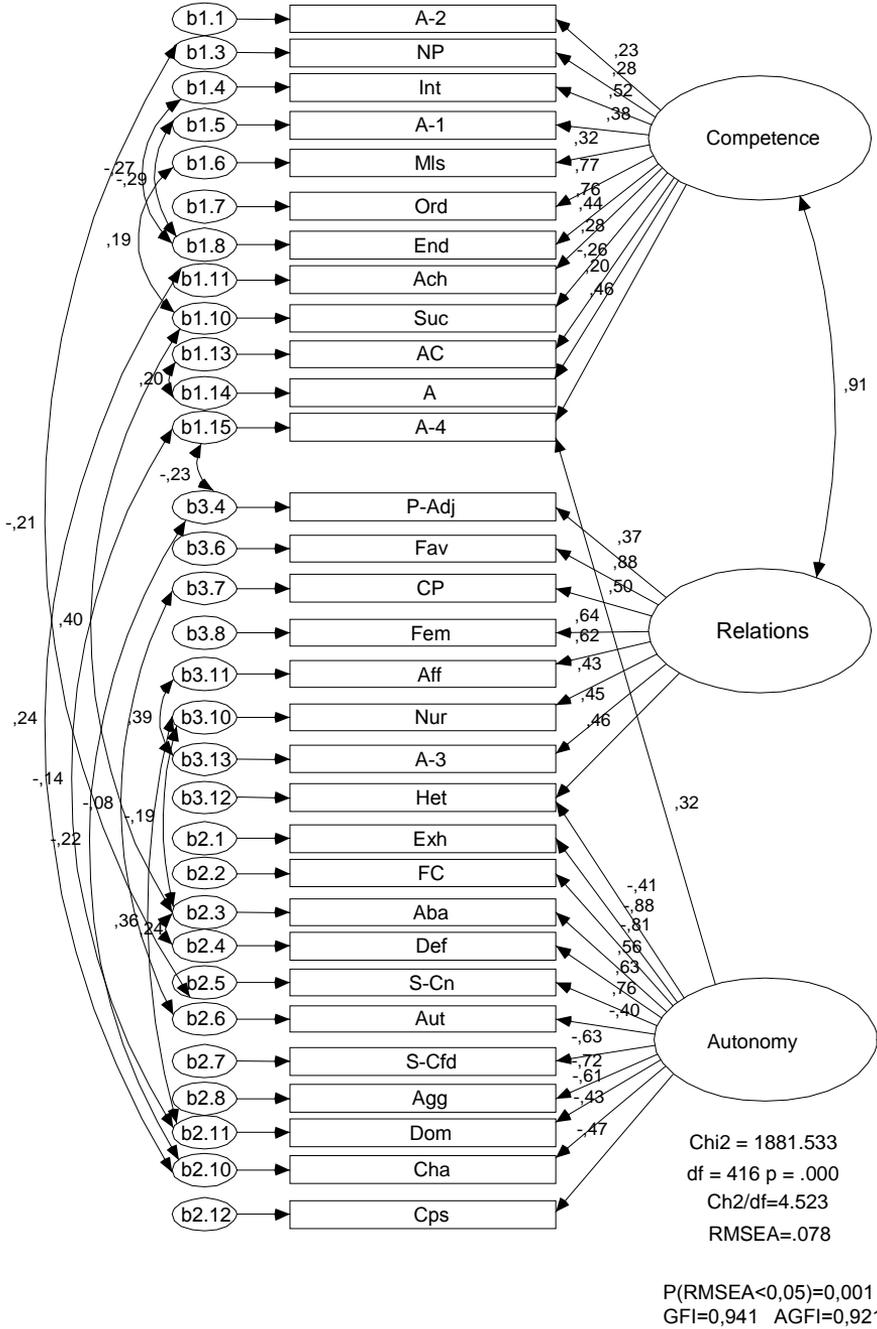
Next, a path model of confirmatory factor analysis was built. In assessing the created model quality, χ^2/df parameters were used (the quotient of χ^2 statistics estimation and the degrees of freedom), the RMSEA (Root Mean Square Error of Approximation), GFI (Goodness of Fit Index) and AGFI (Adjusted Goodness of Fit Index).

Confirmatory analysis produced the following parameters: $\chi^2/df = 4.523$, i.e. less than 5, the RMSEA value = 0.078, i.e. less than 0.08, the GFI = 0.941, the AGFI = 0.921, i.e. more than 0.9, and the results provided the foundation for concluding that the model

was well-matched to the data while the components distinguished could be accepted for further analysis. The detailed results are presented in Figure 1 (Mróz, 2011a, p. 295).

Figure 1. Path model of confirmatory factor analysis of the ACL test

Source: author's own research



During the search for relations and new theoretical references, as demanded by the rules of exploratory factor analysis, it was observed that what they correspond to most are the Deci and Ryan's concept (1985), the Ryan and Deci's concept (2000), and the identification needs of competence, relations and autonomy. And so it was assumed that the theory could be easily broadened as in the obtained analyses. Apart from the distinguished needs, there were a number of additional dimensions, such as content scales (personal adaptation, self-confidence, leadership skills scale, etc.), scales from transaction analysis (adult, adopted child, etc.) or scales examining intellectual and creative predisposition (high and low intelligence, high and low originality, etc.), which are broadly defined personality and axiological dimensions. What refers to personality characteristics (i.e. the need for achievements, for looking after somebody, autonomy, adult) may also refer to the direction for realizing such an image of oneself through values (i.e. social recognition, health, freedom, providing financial support for the family). On account of those determinants that refer to both the professional sphere and the private one, the three distinguished dimensions were called competence, relations and autonomy. And so, when defining them, it was established as follows:

- Competence reflects knowledge, need, and skills connected with influencing the course of events, the need for effort; it refers to results of actions taken.
- Relations reflect needs and skills connected with communicating with others, care for them, the need to establish social bonds, taking into account an internalized system of values, adaptation. Social relations are defined based on responsibility and autonomy.
- Autonomy reflects the need and skills connected in taking actions with a sense of freedom and choice, self-confidence, taking on challenges, cognitive courage and the scope of interests (Ryan, Deci, 2000; Mróz, 2012b, 2015).

Individual dimensions have psychological content presented in Table 1².

² The ACL offers a full sphere of psychological trait assessments. The Adjective Check List Standard Scales are:

Modus operandi: Four scales assessing ways in which the respondent has approached the task of describing self or others.

1. No Ckd – Number Checked: The total number of adjectives checked
2. Fav – Favorable: The number of socially desirable adjectives checked
3. UnFav – Unfavorable: The number of unfavorable (socially undesirable) adjectives checked
4. Com – Communitarity: Correspondence of responses to the pattern of checking typically found among people-in-general

Need scales: Fifteen scales assessing psychological needs or wants identified as important in Henry A. Murray's need-press theory of personality.

5. Ach – Achievement: To strive to be outstanding in pursuits of socially recognized significance
6. Dom – Dominance: To seek and maintain a role as leader in groups, or to be influential and controlling in individual relationships
7. End – Endurance: To persist in any task undertaken
8. Org – Order: To place special emphasis on neatness, organization, and planning in one's activities
9. Int – Intraception: To engage in attempts to understand one's own behavior or the behavior of others

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10. Nur – Nurture: To engage in behaviors that provide material or emotional benefits to others
 11. Aff – Affiliation: To seek and maintain numerous personal friendships
 12. Het – Heterosexuality: To seek the company of and derive emotional satisfaction from interactions with opposite-sex peers
 13. Exh – Exhibition: To behave in such a way as to elicit the immediate attention of others
 14. Aut – Autonomy: To act independently of others or of social values and expectations
 15. Agg – Aggression: To engage in behaviors that attack or hurt others
 16. Cha – Change: To seek novelty of experience and avoid routine
 17. Suc – Succorance: To solicit sympathy, affection, or emotional support from others
 18. Aba – Abasement: To express feelings of inferiority through self-criticism, guilt, or social impotence
 19. Def – Deference: To seek and maintain subordinate roles in relationships with others
- Topical scales:** Nine scales assessing a diverse set of attributes, potentialities, and role characteristics.
20. Crs – Counseling Readiness: Readiness to accept counseling or professional advice in regard to personal problems, psychological difficulties and the like
 21. S-Cn – Self-Control: The extent to which self-control is imposed, and valued
 22. S-Cfd – Self-Confidence: Self-confidence, poise, and self-assurance
 23. P-Adj – Personal Adjustment: Good adjustment in the sense of the ability to cope with situational and interpersonal demands, and a feeling of efficacy
 24. Iss – Ideal Self: Strong sense of personal worth; or, harmony between what one is and what one wants to be
 25. Cps – Creative Personality: The desire to do and think differently from the norm, and a talent for originality
 26. Mls – Military Leader: Steadiness, self-discipline, and good judgment of the kind required in positions of military (or related) leadership
 27. Mas – Masculine: Role-qualities such as ambition, assertiveness, and initiative associated with everyday notions of masculinity
 28. Fem – Feminine: Role-qualities such as helpfulness, sympathy, and affection associated with everyday notions of femininity
- Transactional Analysis scales:** Five scales, an Egogram, assessing components of ego functioning from the Transactional Analysis (TA) theory of personality developed by Eric Berne.
29. CP – Critical Parent: Attitudes of evaluation, severity, and skepticism associated with the concept of a “critical parent”
 30. NP – Nurturing Parent: Attitudes of support, stability, and acceptance associated with the concept of a “nurturing parent”
 31. A – Adult: Attitudes of independence, objectivity, and industriousness associated with the concept of a “mature adult”
 32. FC – Free Child: Attitudes of playfulness, impulsivity, and self-centeredness associated with the concept of a “free” or very expressive child
 33. AC – Adapted Child: Attitudes of deference, conformity, and self-discipline associated with the concept of an “adapted” or very dutiful child
- Origence-intellectence scales:** Four scales assessing the balance between preferences for affective-emotional and rational-realistic modes of functioning from George Welsh’s structural dimensions of personality.
34. A-1 – High Origence-Low Intellectence: Feelings and emotion (high origence) valued more highly than detachment and rationality (low intellectence). High scores suggest informality, vitality, and playfulness
 35. A-2 – High Origence-High Intellectence: High value place on both affect (origence) and rationality (intellectence). High scores suggest versatility, unconventionality, and individuality
 36. A-3 – Low Origence-Low Intellectence: No particular value placed on either origence or intellectence. High scores suggest contentment, conventionality, and optimism
 37. A-4 – Low Origence-High Intellectence: Rationality and analysis (intellectence) valued more highly than feelings and emotion (origence). High scores suggest logicity, industriousness, and cognitive clarity

Table 1. Dimensions of the Personality and Axiological Model MOA distinguished in the ACL test.

Source: author's own research

MOA dimension	Psychological content
<p>Competence: accounts for 34.62% of the variance, 12 scales feature the highest loadings (in order of appearance): A (0.967), Ord (0.948), End (0.940), AC (-0.832), MIs (0.806), A-4 (0.784), Ach (0.760), NP (0.593), A-1 (-0.584), Int (0.565), Suc (-0.537) A-2 (-0.525).</p>	<p>Persons with high results: are efficient, resourceful, focused on work, reliable, well-organized, consistent in pursuing their goals, with a strong sense of duty, effective, striving after success and higher competence, with leadership skills, anticipating skills and cognitive openness.</p> <p>Persons with low results: are disorganized, do not manage work-related demands and responsibility of adult life well, are changeable, easily distracted and change the direction of their actions, want a quick reward for their achievements, feel insecure when it comes to facing demands of adult life.</p>
<p>Relations: account for 10.74% of the variance, 8 scales feature the highest loadings (in order of appearance): A-3 (0.817), Het (0.806), Nur (0.789), Aff (0.783), Fem (0.719), CP (-0.636), Fav (0.607), P-Adj (0.565).</p>	<p>Persons with high results: seek contact with other people, are patient, open, satisfied with their role in life, cooperation-oriented, tactful, compassionate and protective, easily adapt to a group.</p> <p>Persons with low results: are restless, self-conscious, anxious, keep people at a distance, are skeptical about other people's intentions, have a tendency to isolate, are afraid of challenges and opportunities brought by life.</p>
<p>Autonomy: accounts for 20.94% of the variance, 11 scales feature the highest loadings (in order of appearance): Exh (0.876), FC (0.830), Aba (-0.806), Def (-0.764), S-Cn (-0.755), Aut (0.707), S-Cfd (0.701), Agg (0.691), Dom (0.688), Cha (0.632), Cps (0.631).</p>	<p>Persons with high results: are independent, may attract others' attention due to their unusual behavior, are impatient with adversities, value freedom, resourcefulness, pleasures, are self-confident.</p> <p>Persons with low results: are careful, inhibited, yield to others' will in order to avoid interpersonal problems and stress, do not trust themselves, demand little from themselves, submit to others' wishes and requirements, and avoid conflicts whatever the cost.</p>

The competence, relations and autonomy dimension constitutes one fundamental group of independent variables in the MOA concerning life quality. Others include: adaptation (according to the Rotter concept – 1954), assigning high importance for a company (according to the Mróz concept – 2011a) and a values hierarchy (according to the Rokeach concept – 1967).

The sense of life quality was defined after the authors M. Straś–Romanowska (2005) and B. Mróz (2011a), as a generalised and individual person's answer to the fundamental question about effectively solving life-related problems. The sense of life quality concerns four spheres of our functioning: psychophysical, psychosocial, subjective and metaphysical. As the basis for sensed life quality by Straś–Romanowska (2005) and Mróz (2011a), life quality's situated so that it corresponds to the primacy of the subject under study which is man's happiness identified with good life quality. Each adult psychology branch contains issues covering the desired psychological and social functioning aspects, unlike the trends that focus on human weaknesses and limitations. The life quality concept refers to the aspects of positive psychology and assumes that life quality is not only a consequence of sat-

isfaction with what one has done in their life or with the very level of prosperity reached, but is connected more deeply to man's personality structure.

However, getting satisfaction from life can be associated with not only the material sphere or physical sphere (fitness), but also with the developing social contacts or one's fulfilment spiritually. Omitting such essential issues from an individual's internal world of experiences – a sense of freedom, identity, pain and suffering, or feeling alive – seems to deprive life quality studies of its deserved significance.

As already mentioned, behaviors and social functioning, that is, adaptation, are taken from Rotter's concept (1954). Both his theory and Rotter's Incomplete Sentences Blanks (RISB) allow one to determine the quantitative index as being the measure of adaptation. According to Rotter, adaptation reflects the high quality of life as well as being a synonym for coping well with difficulties, and the ability to make and maintain satisfactory relations with others. It should also be noted that in the ACL test there is a personal adaptation scale, and values have an adaptation function too (Rokeach, 1968).

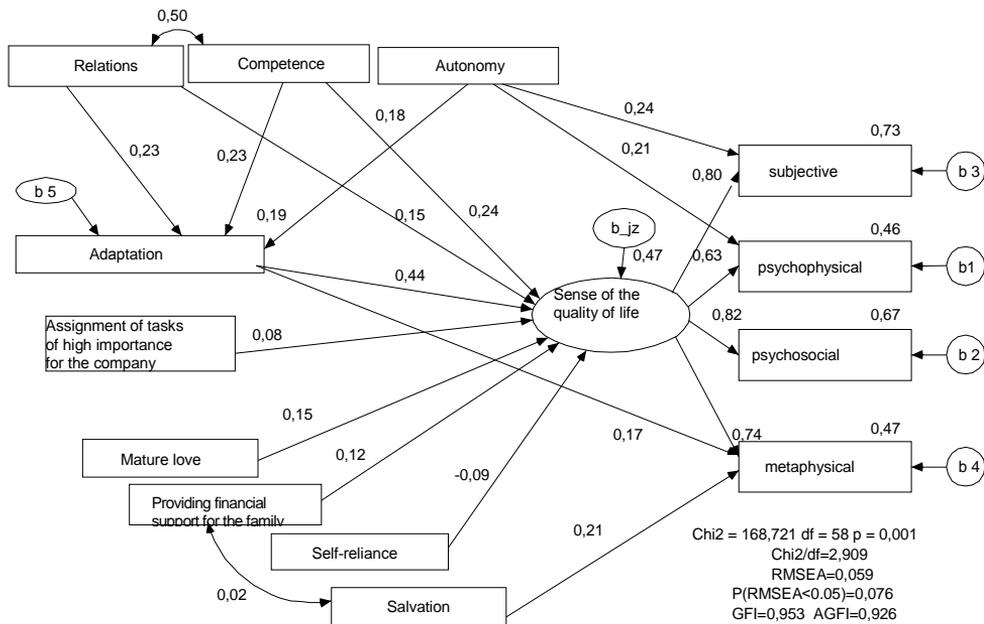
MOA's axiological dimension includes also final and instrumental values distinguished from Rokeach's concept and questionnaire and chosen by senior personnel. The development of and changes to values constitute important personality development elements. The importance of the integrated valuing system for determining the life quality level is a fundamental category in concepts formulated by Allport (1961), Rokeach (1968), Brzozowski (2007) or our own (Mróz, 2011a, 2015).

The new Personality and Axiological Model MOA concerning sensed life quality was verified and elicited satisfactory results between individual dimensions.

Analyses produced the following MOA structural model parameters: $\chi^2/df = 2.909$, RMSEA = 0.059, GFI = 0.953, AGFI = 0.926; the results demonstrate that the model was well-matched to the data (Górnjak, 2000). The results are presented in Figure 2.

Figure 2. General structural model MOA

Source: author's own research



The estimated direct causality path indexes concerning life quality are as follows: adaptation 0.44, competence 0.24, relations 0.15, ‘mature love’ 0.15, ‘providing financial support for the family’ 0.12, ‘self-reliance’ -0.09, and assigning high importance tasks for a company amounted to 0.08. The estimated indirect causality paths indexes for quality of life are as follows: relations – adaptation 0.23; competence–adaptation 0.23; autonomy– adaptation 0.18.

Based on standardized path loadings the total impact of direct and indirect personality variables on life quality and the total impact of direct and indirect axiological life quality variables were calculated. The first amounted to 0.2919, the other – 0.045; given the above it can be concluded that personality variables have a stronger impact on life quality than axiological variables do. The results showed that the personality dimension plays a much larger role than the axiological dimension.

Due to the fact that the above analyses, applied to construct the MOA model, were conducted on a large number of studies, the model can be treated as a new proposal to be used in verification performed on various adult groups.

Research objective, method and respondents

Our research objective was to answer the question about the relationship directions between variables in the Personality and Axiological Model (MOA) and the life quality sense in an adult group— commerce and service sector specialists. It was hypothesized that gender moderates relationships between independent variables and life quality. It was possible to formulate the hypothesis based on existing research that have proved gender differences in various psychological dimensions among persons performing various functions or representing different professions (Ogińska-Bulik, 2006; Hulewska, 2002; Terelak, 2007; Mróz, 1998, 2011b, 2011c, 2013).

The research methods applied include: the ACL test by H. G. Gough and A. B. Heilbrun (Gough, Heilbrun, 1983; other studies: Matkowski, 1984; Płużek, Łazowski, Kozioł, Kozłowska, 1985; Wolińska, Drwal, 1987; Juros, Oleś 1993; Oleś, 1995; Tucholska, 2009; Mróz, 20011a, 2015; Martowska, 2012), the Rotter Incomplete Sentence Blank (RISB), our own Professional Achievement Index scale for senior personnel (Mróz, 2011a, 2012b), the Value Survey (VS) (Rokeach, 1967; other studies: Brzozowski, 1989, 2007; Mróz, 2011a, 2012b) and the Sense of the Quality of Life Questionnaire by M. Straś-Romanowska, A. Oleszkowicz and T. Frąckowiak (Frąckowiak, 2010; other studies: Mróz, 2011a, 2012a).

The research was performed on 276 commerce and service sector employees (158 women and 118 men). 65.4% had master's degrees, 22.3% – secondary education and 12.3% – a bachelor's degree. They all consented to the research.

Results

Figures 3 (women's results) and 4 (men's results) show analyses which verify the Personality and Axiological Model by gender. The path analysis produces information whose variables, and to what extent, matter for the model. Apart from the actually estimated model, there are also so-called residual variables, residual variances marked with the letter 'b'. They reflect the impact of variables not included in the analysis.

Figure 3. The MOA structural model in the female group.

Source: author's own research

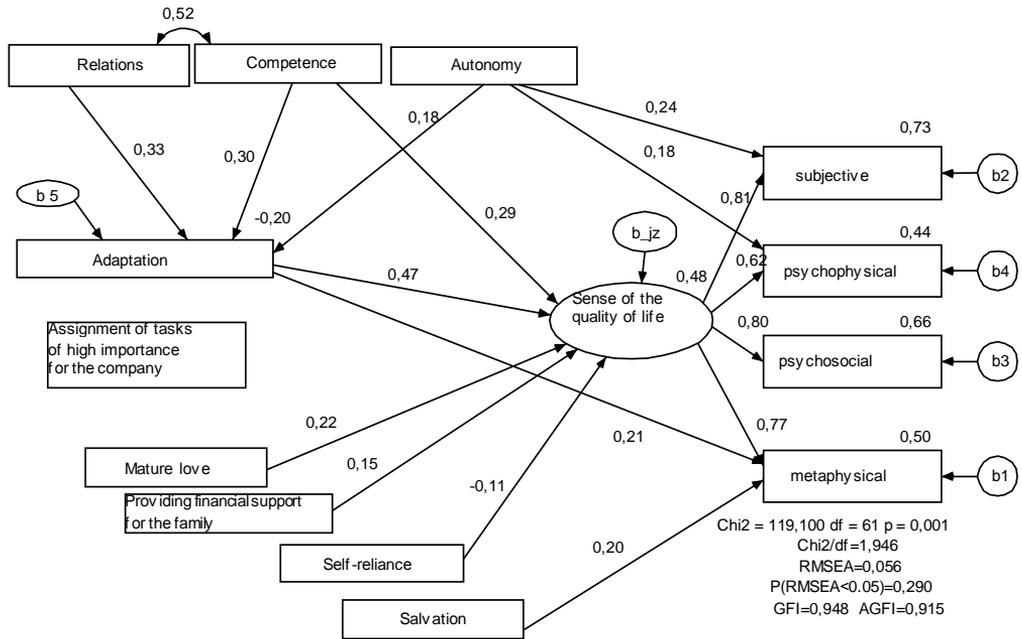
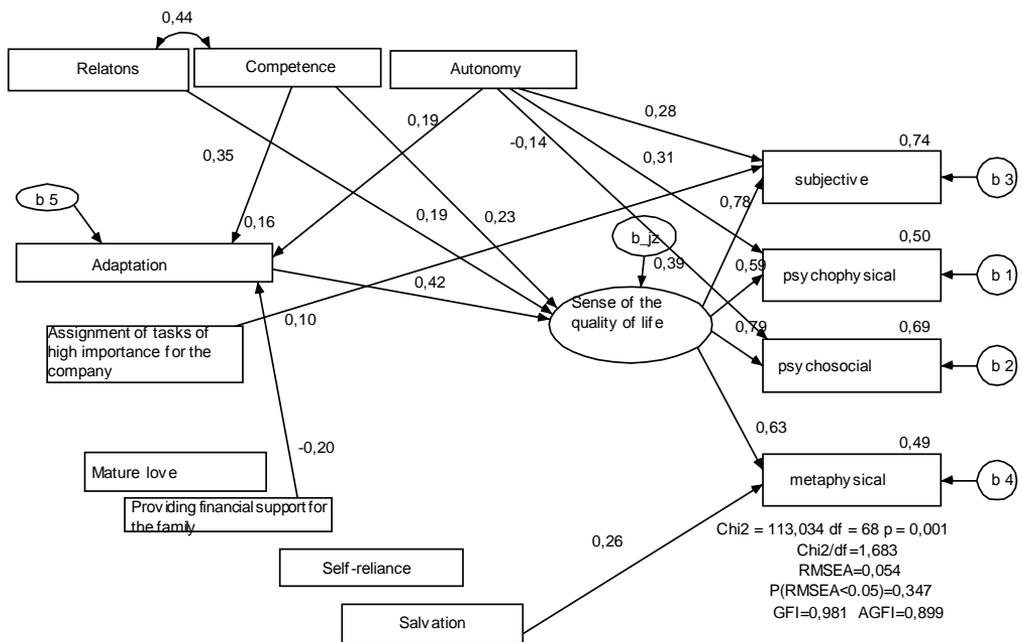


Figure 4. The MOA structural model in the male group.

Source: author's own research



Verifying the hypothesis concerning the gender role in moderating relations between independent variables and quality of life produced results pointing to significant differences. In the light of χ^2 (1.946 and 1.683) and the Tucker-Lewis Index (TLI) ($P = 0.108$ and $TLI = -0.050$), it turned out that the model deteriorated substantially. The value is lower than 0.05 and higher than 0.02, which means that the hypothesis predicting that the models are the same should be rejected. What is important, this is another proof of differentiation within the MOA (Mróz, 2011a).

In the female group the following MOA parameters were obtained: $\chi^2/df = 1.946$, $RMSEA = 0.056$, $GFI = 0.948$, $AGFI = 0.915$; It is very well matched to the data. The standardized path loadings between independent variables and the dependent variable fall within the 0.11 to 0.48 bracket. The coefficient of determination is 0.48, which means that it obtained 48% life quality variance in the structural model in the analyzed group. The result should be considered high. Nearly half of variations can be accounted for with the relation between personality characteristics and values.

The estimated values within the dependent variable fall within the 0.62 to 0.81 bracket and are very strong. For the subjective sphere it is 0.81, for the psychophysical – 0.62, for the psychosocial – 0.80 and for the metaphysical – 0.77.

The estimated direct causality path coefficients in the female group are as follows: adaptation 0.47, competence 0.30, ‘mature love’ 0.22, ‘providing financial support for the family’ 0.15, ‘self-reliance’ – 0.11.

The analysis performed in the male group produced the following MOA parameters: $\chi^2/df = 1.683$, $RMSEA = 0.054$, $GFI = 0.981$, $AGFI = 0.899$. The results allow for concluding that the model is very well matched to the data.

The standardized path loadings between independent variables and the dependent variable fall within the 0.10 to 0.42 bracket. The coefficient of determination is 0.39, that is, it obtained 39% variance for the life quality variable in the structural model in the specialists group. It is a high result.

It can be assumed that less than half the variation results among men can be accounted for mainly by personality characteristics.

The estimated values within the dependent variable fall within the 0.59 to 0.79 bracket and are very strong. For the subjective sphere it is 0.78, psychophysical – 0.59, psychosocial – 0.79 and metaphysical – 0.63.

The numbers placed next to the spheres that make up the sense of the quality of life are, as already mentioned, unobservable, hidden variables. And so 74% of the result refers to the subjective sphere, 50% – psychophysical sphere 69% – to psychosocial sphere and 49% – metaphysical sphere.

The estimated direct coefficients of causality paths in the male group for the life quality sense are as follows: adaptation – 0.42, competence – 0.23, relations – 0.19.

Discussion on the results

What prevails in the women's path model is the significance of adaptation, competence and family values. These areas play an important role in explaining the causes for life quality sense (strength of the relationship 0.48). The professional aspects and the private ones balance out here. It seems that the female respondents handle both spheres well. Therefore, it can be assumed that the way they deal with difficulties has distinct features of constructive activity. As the way Rotter understands adaptation covers also the ability to make and maintain satisfactory relations with others (Rotter, 1954), it should be concluded that relations directly connected with the sense of the quality of life are not as important as competence for women. There is an indirect relationship between social relations and life quality sense through adaptation.

Women seem to manage difficulties and frustrations well, also by emphasizing their competence (0.29) and going through them in the professional context. What also helps in dealing with adversities are flexible attitudes and organizational skills. Anticipating further discussion a little bit, it can be mentioned that the value of competence among men is 0.23. Women display clear expectations of achievement, success, and maybe some competition, which may motivate the respondents. The pursuit of professional success, reliability, resourcefulness (reconciling work with home), openness, and practicalism all enable female senior employees working in commerce and service sectors to derive satisfaction and the sense of life quality from the professional field.

A senior employee is usually expected to be well-organized, professionally efficient, and not act intuitively. The sense of achievement, professional competence characterizing the female respondents are useful also in their private lives. Such values as 'mature love' or providing financial support for the family clearly show that women, also in their private lives, plan to find fulfillment in this sphere and seek causes for quality of life in it. And here once again there are differences arising from gender; as in the case of men there is no standardized path loading factor leading from 'providing financial support for the family' towards the sense of life quality. Hence it looks as though women more than men become used to the thought that domestic upkeep rests with them to a greater extent. This may be related to the fact that professionally active women are better at dealing with stress. Ogińska-Bulik found that gender very typically diversifies the burnout syndrome and all its components (Ogińska-Bulik, 2006). In the female respondent group, 'self-reliance' turned out to be an interesting value that is a significant

indicator of causal strength with the dependent variable. Rokeach defines this values as self-reliance, self-sufficiency. Nevertheless, the female respondents, despite their high level of adaptation, competence, responsibility for work and their family, do not have too much self-confidence; they still have a lower self-esteem, they feel dependent. What also deserves mentioning are indirect MOA paths that determine the relationship between certain independent variables with individual life quality spheres. Both in men and women there is a negative relationship between autonomy and adaptation (-0.20). It turns out that lack of independent actions among women results in low consequences in this dimension. In the group of respondents autonomy turns out to be strongly related to two life quality spheres: subjective (0.24) and psychophysical (0.18).

Concerning competence (0.25) it can be clearly noticed that helplessness is a strong causal relationship index with social maladjustment. What is interesting and what proves such interpretation correct is that social relations pointing to the relation with adaptation (0.33) also show that impatience, lack of openness and superficiality do not create favorable conditions for good adaptation. Standardized factor value loading of the path leading from 'salvation' to the metaphysical sphere (0.20) is not surprising either as those notions are close. The path from adaptation to the metaphysical sphere (0.21) means that women who have dissatisfactory interpersonal relations have problems with deepened reflection and for seeing their life as a sensible whole.

In the men's path model, professional aspects prevail and it seems that the respondents do well in this sphere. In the model the role and relationship between adaptation (relationship strength 0.39) and the quality of life dominate. Dealing with aspiration for success and everyday active functions is based on well-trying patterns, as it seems, also cultural ones.

The male respondents working in commerce and service sectors stress their competence (0.23). They feel self-confident, self-aware, and aware of their fate. They are strongly focused on their work, are aware of their efficiency. And so they do not have to prove their self-agency. It seems that women's significantly higher competence dimension (0.29) resulted from their desire to prove their value to themselves and the world. Such a conclusion seems the more justified in the context of 'self-reliance'. In the men's path model there is simply no link going out from 'self-reliance'. What is visible is satisfaction with effort put into work as well as sensed influence on numerous issues. It is demonstrated by both the direct path from social relations to life quality as well as to providing good living standards for the family and continuing through adaptation.

However, in both the women and men, competence is significant and affects life quality. It points to the sense of one's effectiveness and resourcefulness. This characteristic is important for both sexes. At this point a reference can be made to A. Bandury's concept

saying that if someone is convinced of their effectiveness and at the same time estimates their chances for achieving a goal as being high, then the person is inclined to take such action (Bandura, 2007). The behavior of senior personnel as commerce and service sector specialists, irrespective of their sex, displays strong determination in this dimension.

The third path (in relation to standardized factor loading) among men leads from social relations (0.19) to a sense of life quality. As this dimension's formal components include satisfaction with one's life role and the consciousness of interpersonal relations, then what probably also arises from it is the causal relationship between social relations and the sense of life quality. Such interpretation seems justified since – as Ogińska-Bulik writes – men display a higher degree of burnout than women, particularly in depersonalization. This dimension refers to impersonal, instrumental treatment of others (Ogińska-Bulik, 2006). And so the need for interpersonal relations cannot be treated here as, for example, indicating a patient attitude, cooperation with others, or looking after others, because if it was so then the axiological area would be filled with causal relationships with life quality. And in the case of path modeling, in the male group there was no causal relationship between this value and a dependent variable.

The MOA models clearly show (for example, a smaller number of paths – five in women and three in men) that differences between sexes in causal relationships analyzed in life quality are considerable and are mainly based on passing over the personal and family values by men. When we refer to the little time which, according to research, professionally active men spend with their families, the model not only does not surprise but simply confirms the observable and examined situation (Paluchowski, Hornowska, 2003). What is surprising, 'providing good living standards for the family', a value seemingly so commonly declared in research by working men, is not confirmed in this path model. It is not linked to the sense of life quality. And so it can be concluded that in the male group only personality determinants are in a causal relationship with quality of life.

Apart from the above-mentioned differences, what attracts attention in the male group is the professional achievements dimension, that is, 'assigning high importance tasks for the company' as it is related to the subjective sphere (0.10). There is no such path in the female group. It proves their attitude to their competence, however, as it seems, rather exclusive and expansive than involving the sharing of experience or knowledge with others. The situation is explained by B. Kozusznik in her delegation of powers concept called deinfluencing, namely, consciously giving up influence. The mechanism is the basis for delegating powers and power to those with special abilities. Concerning deinfluencing it should be emphasized that nearly all professional actions, except for strategic ones, can be delegated (Kozusznik, 1996, 2011). Given the research conducted, what is interesting and important is that the 'assignment of tasks

of high importance for the company' refers to the subjective sphere of life quality, and Kożusznik writes that subjectivity entails undertaking to use all team elements plus the individual assigning tasks to others (ibidem). Focusing on actions taken independently, the subjective content sphere fully corresponds to such behavior. Concurrence obtained by various authors in their research justifies significance of those results and can be treated additionally as a significant indicator of our concepts and the MOA.

Summary

The verification of new models in subsequent research groups offers a unique chance to check prior assumptions and makes the data obtained more reliable. Also the possibility to confront results with up-to-date findings allows for development of the area penetrated, for putting forward new hypotheses, relations and correlations. The data presented in our article that concern a specialists group working in commerce and service sectors point to permanence trends and positive verification of the Personality and Axiological Model (MOA), which is important as it points to capturing permanent elements that make up the MOA dimensions. The broadly defined personality dimensions and the hierarchy of values, both so important for human functioning, seem to be sufficiently verified and confirmed though, certainly, application of this model on other groups (professional and non-professional ones) would be equally inspiring.

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The role of personal resources in the relationship between job stressors and emotional exhaustion³

Streszczenie

Celem badań było określenie roli afektywnych dyspozycji psychicznych (tj. inteligencji emocjonalnej oraz pozytywnej i negatywnej afektywności) w relacji stresory w pracy – wyczerpanie emocjonalne. Pod uwagę wzięte zostały trzy rodzaje stresorów w pracy (tj. konflikty interpersonalne, ograniczenia organizacyjne i obciążenie pracą), a także podstawowy komponent wypalenia – wyczerpanie emocjonalne. Przewidywano, że: (1) stresory w pracy będą bezpośrednio wiązać się z wyczerpaniem emocjonalnym, przy kontroli pozytywnej i negatywnej afektywności; (2) zależność ta będzie buforowana przez inteligencję emocjonalną. Badania przeprowadzono w grupie 153 pracowników, których praca wymagała bezpośrednich kontaktów z klientami oraz pracy zespołowej. Wyniki pokazały, że pracownicy doświadczający częstszych konfliktów interpersonalnych, ograniczeń organizacyjnych i obciążenia w pracy cechowali się wyższym poziomem wyczerpania emocjonalnego. Zależność ta wystąpiła niezależnie od efektu pozytywnej i negatywnej afektywności. Inteligencja emocjonalna moderowała negatywny efekt konfliktów interpersonalnych – ale nie ograniczeń organizacyjnych i obciążenia w pracy – na wyczerpanie emocjonalne. Dodatnią relację między konfliktami interpersonalnymi i wyczerpaniem emocjonalnym zaobserwowano wśród pracowników z niskim poziomem inteligencji emocjonalnej. W grupie pracowników z wysokim poziomem inteligencji emocjonalnej relacja ta była nieistotna statystycznie. Uzyskane wyniki wyjaśniane są z perspektywy modelu wymagania w pracy – zasoby.

Słowa kluczowe

stresory w pracy, wyczerpanie emocjonalne, inteligencja emocjonalna, pozytywna i negatywna afektywność.

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Abstract

Our study was designed to examine an individuals' affective traits (i.e., dispositional affectivity and emotional intelligence) and job stressors (i.e., interpersonal conflicts, quantitative workload and organizational constraints) on emotional exhaustion. One hundred and fifty-three employees participated in our study. All of them worked in teams and their job required face-to-face contacts with clients. Our main hypothesis was that emotional intelligence acts as a moderator in the relationship between job stressors and emotional exhaustion. The results indicate that employees who report more interpersonal conflicts at work, greater quantitative workloads and greater organizational constraints also report more symptoms of emotional exhaustion. Moreover, the results show that all three stressors were significant as predictors of emotional exhaustion beyond the employee's dispositional affectivity. The moderating effect of emotional intelligence was observed in the relationship between interpersonal conflicts at work and emotional exhaustion. The relationship between interpersonal conflicts and emotional exhaustion was observed only among employees who were low in emotional intelligence. In contrast, interpersonal conflicts and emotional exhaustion were unrelated among employees who were high in emotional intelligence. The results are discussed from the Job Demands–Resources model perspective.

Keywords

job stressors, emotional exhaustion, emotional intelligence, dispositional affectivity

Introduction

In recent years occupational stress has received extensive theoretical and research attention. Research demonstrates that job stress is the second most significant (after back pain) health complaint among workers (Hellgren, Sverke & Naswall, 2008). Analyses of job conditions in European Union countries, conducted by the European Foundation for the Improvement of Living and Working Conditions, showed that nearly 30% of employees suffer from occupational stress as a result of demanding work conditions (Eurofound, 2012). Researchers point out that this trend is growing. The problem of occupational stress is a real burning issue for Poles. According to the Survey of Health, Ageing and Retirement in Europe (SHARE), more than 30% of Polish workers aged 50 and over reported experiencing highly stressful work environments. In contrast, only 8.5% of respondents residing in Germany (and only 4.1% residing in Denmark) reported experiencing highly stressful conditions in their work life (Wahrendorf & Siegrist, 2014). Occupational stress has been linked to low productivity, low work engagement, and increased rates of counterproductive work behaviours (Cox, Griffiths, & Rial-Gonzalez, 2000). One adverse consequence of occupational stress is job burnout.

The job stressors-job burnout link has been recognized in a variety of theoretical models, including the Job Demands-Control model (Karasek, 1979), the Job Demands-Control-Support model (Johnson & Hall, 1988), the Effort-Reward Imbalance model

(Siegrist et al., 2004), and the Conservation of Resources theory (Hobfoll, 1989). However, these models may have limitations in capturing the new, complex, and often context-specific determinants of job stress and occupational well-being. In an attempt to meet this criticism, a new model of work stress has recently been introduced: the Job Demands-Resources model (JD-R; Demerouti, Bakker, Nachreiner, & Schaufeli, 2001).

The JD-R model as a theoretical framework for the current study

According to the JD-R model, each occupation contains specific risk factors which, in the absence of sufficient resources, may lead to job burnout. Indeed, studies show that each occupation has its unique risk factors related to job burnout (Bakker, Hakanen, Demerouti, & Xanthopolou, 2007). However, irrespective of the occupational activities we engage in at work, job burnout develops from great job demands and a shortage of job resources. Job demands refer to “physical, social or organizational job aspects that require sustained physical and/or psychological effort and are associated with certain physiological and/or psychological costs” (Demerouti et al., 2001, p. 501). They include role stress, bad work conditions, time pressure, job monotony, workload, interpersonal conflicts, and organizational constraints. Job resources are related to “physical, social and organizational aspects of the job, the same physical, psychological, social or organizational job aspects that may: be functional in achieving work-related goals; reduce job demands and the associated physiological and psychological costs; and stimulate personal growth and development” (Demerouti et al., 2001, p. 501).

In the initial stage of research on the JD-R model, investigators emphasized the beneficial role of organizational resources (e.g., social support, job control and feedback). Later, researchers paid more attention to personal resources (Xanthopolou, Demerouti, & Schaufeli, 2007). Given that personal resources are defined in terms of resiliency and control, one may expect them to buffer the negative effects of job demands on job burnout. This reasoning has found support in quite a few studies (e.g., Brenninkmeijer, Demerouti, Le Blanc, & Van Emmerik, 2010; Van den Broeck, Van Ruysseveldt, Smulders, & De Witte, 2011). For example, Xanthopolou et al. (2007) demonstrated that self-efficacy and optimism minimize the link between job demands (i.e., emotional dissonance, workload, organizational changes) and exhaustion. Brenninkmeijer et al. (2010) observed that the detrimental effects of interpersonal conflict and workload on exhaustion were more pronounced in employees who had a strong prevention focus (i.e., those who were concerned with obligations and responsibilities). Schaufeli and Taris (2014), in their review of research on the JD-R model, listed several personality factors which can act as moderators in the link between job stressors and job burnout. According

to Schaufeli and Taris (2014) emotional competencies (e.g., emotional intelligence) may play a crucial role diminishing the influence of work stressors on burnout. The aim of our study is to examine (1) the relationship between job demands and job burnout and (2) the buffering effect of emotional intelligence on the job demands-job burnout effect.

The Job Stressors-Job Burnout link

Job burnout has been defined as a response to chronic occupational stressors (Maslach & Jackson, 1981). Although the concept of burnout was originally restricted to human service professionals, a number of studies have demonstrated that burnout also occurs in occupations outside the human service sector (e.g., Chirkowska-Smolak & Kleka, 2011; Maslach, Schaufeli, & Leiter, 2001). Job burnout is described as a state of emotional depletion associated with negative attitudes towards work and a tendency to treat people with whom one works in a cynical, detached and mechanical manner. Furthermore, if this process continues, it evokes feelings of professional inadequacy and leads to a decreased sense of personal accomplishment (Maslach & Jackson, 1981). Job burnout is devastating for both workers and organizations, as it is linked to health impairment, absenteeism, high turnover rates and lower job performance (Wright & Cropanzano, 1998). Therefore, it is important to identify job characteristics which contribute to increased levels of job burnout. Different kinds of job stressors are taken into account in research on job burnout (Schaufeli & Bakker, 2004; Schaufeli & Taris, 2014). Three were analysed in the present study – interpersonal conflicts at work, organizational constraints and workload (Spector & Jex, 1998).

Interpersonal conflict at work refers to how well an individual gets along with others at work (e.g., “How often are others rude and nasty towards you and/or how often do they yell at you?”) and is considered to be a social stressor (Spector & Jex, 1998). It is defined as a negative interpersonal encounter characterized by a contentious exchange, hostility or aggression. It may be an isolated incident or recurrent and enduring acts of violence which can be a manifestation of mobbing. Interpersonal conflicts at work may range from minor disagreements between co-workers to physical violence towards others. The conflict may be overt (e.g., being rude to coworkers) or may be covert (e.g., spreading rumours about coworkers). The Stress Incident Report (SIR), an open-ended method used by Keenan and Newton (1985) to collect stressful incidents that occur at work shows that seventy-four percent of the reported incidents were caused by social interactions with superiors, subordinates, or colleagues. There exists some cross-cultural evidence for the prevalence of interpersonal conflict at work as a significant source of stress. For example, in a study conducted by Narayanan, Menon and Spector (1999),

American and Indian clerical workers considered 11 possible stressor categories. The results showed that interpersonal conflict was the third most cited source of stress in the U.S. sample and the fourth most cited source in the Indian sample. Another cross-cultural study found that among American employees, supervisors were the main source of conflict. In turn, Chinese employees more often came into conflicts with other co-workers (Liu, Spector, & Shi, 2007).

Organizational constraints are “situations or things that prevent employees from translating ability and effort into high levels of job performance” (Spector & Jex, 1998, p. 357). In other words, organizational constraints are situational inhibitors of performance and have been categorized as hindrance stressors. They can be divided into interpersonal constraints (e.g., conflicting commands of superiors) and job context constraints (e.g., inadequate training; Liu, Nauta, Li, & Fan, 2010). Using open-ended methodology, Liu, Spector and Shi (2007) found that organizational constraints were the most often mentioned stressor for both American and Chinese employees. Peters and O’Connor (1985) listed eleven sources of organizational constraints: job related information, budgetary support, required support, materials and supplies, required services and help from others, task preparation, time availability, work environment, scheduling of activities, transportation, and job-relevant authority. Cross-cultural studies showed that these various constraints in organizations are perceived as an important source of stress by American, Indian and Chinese employees (Narayan et al., 1999; Liu et al., 2010).

Workload is listed as one of the most common stresses. It can be measured by the one’s clock-in hours, productivity rates, or even the mental demands of the work we perform. In our study, quantitative workload is provided, which is measured by the volume of work that employees are required to perform during a given time period (Spector & Jex, 1998). Numerous research studies have confirmed that excessive (quantitative) workload has a direct negative effect on employees’ health, including their susceptibility to job burnout (Häusser, Mojzisch, Niesel, & Schulz-Hardt, 2010).

The relationships between these three job stressors and occupational stress have been widely studied and the bulk of research demonstrates that these three aforementioned job stressors are positively related to job burnout (e.g., Baka & Cieślak, 2010; Brenninkmeijer et al., 2010; Derbis & Baka, 2011). For example, in a Polish study (Baka & Cieślak, 2010), job burnout correlated with interpersonal conflict at work ($r = .22$; $p < 0.001$), organizational constraints ($r = 0.43$; $p < 0.001$) and workload ($r = 0.16$; $p < 0.05$).

Based on the cited study, we expect to see a positive relationship between the three job stressors and job burnout. Due to our interest in intrapersonal effects of job stressors we decided to focus on emotional exhaustion, which refers to feelings of fatigue and being emotionally overextended by a stressful work environment. Moreover, emotional

exhaustion is considered the core of the job burnout syndrome (Shirom, 2005; Cordes, Dougherty, & Blum, 1997). Therefore, we predict a positive relationship between the three job stressors and emotional exhaustion. However, there are suggestions that dispositional affectivity may create a spurious correlation between job stressors and emotional exhaustion. For example, some researchers have suggested that employees high in positive affectivity are likely to perceive their job environment in a more positive light, whereas negative affectivity is conducive to a negative view of one's job environment (e.g., Brief, Burke, George, Robinson, & Webster, 1988; Payne, 1988). Consequently, employees high in negative affectivity may perceive their working environment as more stressful than those low in negativity. Furthermore, dispositional affectivity can also be linked to emotional exhaustion. Research studies have consistently demonstrated that negative affectivity is significantly related to higher levels of emotional exhaustion, whereas high positive affectivity is linked to a reverse pattern (Wright & Cropanzano, 1998).

Overall then, there is strong evidence that dispositional affectivity may influence reports concerning both the predictor (job stressors) and the criterion variables (emotional exhaustion) which are under study here. Therefore, in order to clarify this issue, we hypothesize that the job stressors-emotional exhaustion link exists *beyond* the dispositional affectivity of the employee. Thus, we predicted the following: Job stressors are positively related to emotional exhaustion, beyond dispositional positive or negative affectivity (*Hypothesis 1*).

The moderating role of emotional intelligence

We need to remember that stressful events are an inevitable part of work. Most employees are constantly subjected to various stressful situations at work. Therefore, attention should be paid to factors that may mitigate the negative effect of job stressors on occupational stress and burnout. Therefore, an additional aim of our study was to examine whether employees' trait emotional intelligence (EI) acts as a moderating variable in the relationship between job stressors and emotional exhaustion. The rationale for this hypothesis was grounded in research which shows that trait EI is protective against stress. For example, Szczygieł and Bazińska (2013) noted that employees who reported high rates of negative emotions experienced at work also reported more symptoms of emotional exhaustion; however, this effect was observed only among employees who were low in trait EI. There is also evidence that employees who are high in trait EI report fewer symptoms of burnout and fewer somatic complaints than those who are low in trait EI (Mikolajczak, Menil, & Luminet, 2007; Ogińska-Bulik, 2005). Therefore, it is very likely that employees high in trait EI are more likely than their low-in-trait-EI counter-

parts to be able to reduce the likelihood of emotional exhaustion caused by work stressors. Consequently, we expected to find that the relationship between job stressors and emotional exhaustion to be weaker among those high in trait EI, and thereby we stated a moderating hypothesis: Emotional intelligence moderates the relationship between job stressors and emotional exhaustion, in such a way that the relationship is stronger among those lower in emotional intelligence than those higher in emotional intelligence (*Hypothesis 2*). Given that we take into account three job stressors, we hypothesize that trait EI moderates the relationship between interpersonal conflict (*H2a*), quantitative workload (*H2b*), and organizational constraints (*H2c*). Notably, in our study, we controlled for dispositional affectivity in order to ensure that this relationship was not driven by the affective disposition of the employee. Therefore, these were our research hypotheses:

H1: Job stressors are positively related to emotional exhaustion, beyond dispositional positive affectivity (PA) and negative affectivity (NA).

H2: Emotional intelligence buffers the negative effects of job stressors on exhaustion.

H2a: Emotional intelligence buffers the negative effects of interpersonal conflict at work on exhaustion.

H2b: Emotional intelligence buffers the negative effects of organizational constraints on exhaustion.

H2c: Emotional intelligence buffers the negative effects of excessive workload on exhaustion.

Method

Participants

One hundred and fifty-three employees participated in our study. In terms of participants' background, 59 were banking customer service representatives, 45 were administrative staff who have direct contact with clients, 31 were retail sales assistants, and 18 were restaurant service workers. All worked in teams and their job required face-to-face contacts with clients. Among them, 90 (58.8%) participants were women, 63 (41.2%) were men. The participants were on average 39 years old ($SD = 8.80$). Their average tenure was approximately 16 years and ranged from one to 40 years. Of all the respondents, 42.5% reported they had a university degree, whereas 57.5% reported being high school or vocational school graduates.

Measures

Job stressors

Job stressors were measured with three scales: Interpersonal Conflicts at Work Scale (ICAWS), Organizational Constraints Scale (OCS) and Quantitative Workload Inventory (QWI) developed by Spector and Jex (1998). Polish versions of the scales were adapted by Baka and Bazińska (2016). The ICAWS includes four items, the OCS eleven, and the QWI five items. All the questionnaires include five-point scales (1 = fewer than once a month or never, 5 = a few times daily). Validation studies conducted by the authors resulted in the following reliability coefficients for the scales: $\alpha = 0.74$ for the ICAWS, $\alpha = 0.85$ for the OCS and $\alpha = 0.81$ for the QWI (Spector & Jex, 1998). Scale validity, determined by correlating such factors as state and trait anxiety, depression, frustration, negative affect and level of personal achievement, absenteeism and job satisfaction, was found to be satisfactory (Spector & Jex, 1998).

Emotional exhaustion

Emotional exhaustion was assessed with the subscale of the Polish version (Pasikowski, 2000) of the Maslach Burnout Inventory (MBI-HSS, Maslach, Jackson, & Leiter, 1996) which was designed for professionals in the human services. This nine-item scale measures how often one feels emotionally overextended and exhausted by one's work. All items were scored on a seven-point rating scale, ranging from 0 "never" to 6 "every day" and the score is calculated by summing up the item scores.

Trait emotional intelligence

The Trait Emotional Intelligence Questionnaire-Short Form (TEIQue-SF; Petrides & Furnham, 2006; Polish adaptation Szczygieł, Jasielska, & Wytykowska, 2015) was used to measure trait emotional intelligence. The TEIQue-SF is derived from the full form of the TEIQue (see Petrides, 2011, for a comprehensive description of the factors and subscales) and comprises 30 items rated on a seven-point scale ranging from 1 (completely disagree) to 7 (completely agree). A trait emotional intelligence score is calculated by summing up the item scores and dividing them by the total number of items.

Dispositional affectivity

PA and NA were measured using the Positive Affectivity Negative Affectivity Schedule (PANAS, Watson, Clark, & Tellegan, 1988). PANAS is a 20-item scale which consists of 10 positive and 10 negative adjectives describing emotional states. Participants were asked, "To what extent do you generally feel this way, on average, across all situations?" We used a Polish adaptation of the PANAS (Brzozowski, 2010). Participants indicated their answers on a five-point scale ranging from 1 (very slightly or not at all) to 5 (extremely). For each subscale, scores range from 10 to 50 points.

Procedure

We collected data from September to December in 2014 and from May to October in 2015. Participants were recruited by psychology students who volunteered to participate in this project. Each student was instructed how to recruit participants, defined for the purpose of this study as full-time employees of the service sector whose work requires working in teams. Participants were asked face-to-face to take part in our study. Employees who expressed interest in it completed questionnaires on demographics, job stressors, emotional exhaustion, trait EI and dispositional affectivity. After filling in the questionnaires, participants placed them in sealed envelopes which the experimenters then collected approximately one week after distributing them. Participants were assured that the collected data would be kept confidential and would only be used for research purposes.

Results

Preliminary results

There were no significant differences between the four occupational groups in the major variables measured. Hence, the occupational groups were combined for the analyses reported in our paper. Before treating all participants as one sample, t-tests were performed on all variables using gender as the independent variable. Two significant differences emerged. Results showed that female participants reported higher rates of NA than male participants: $t(151) = 2.30, p < .05, M = 19.02 (SD = 6.28)$ and $M = 16.81 (SD = 5.17)$, respectively. Furthermore, compared to females, male participants were older: $t(151) = 2.30, p < 0.05, M = 37.43 (SD = 87.98)$ and $M = 40.71 (SD = 9.60)$, respectively. Previous research suggests that a variety of socio-demographic variables such as gender, age and job tenure may be associated with the perception of burnout symptoms (e.g., Maslach et al., 2001). Therefore, in order to exclude any spurious effects and make sure that the effects of burnout are examined above and beyond socio-demographic variables, we statistically controlled for these factors. The inclusion of socio-demographic variables had essentially no influence on the observed relationships, and they were eventually dropped from the models and it was decided to treat the group as one sample. Table 1 contains the means, standard deviations, internal consistency coefficients (Cronbach's α) and intercorrelations of all the variables measured.

Table 1.

Internal-consistency reliability (Cronbach's α), means, standard deviations and intercorrelations among all study variables

	1	2	3	4	5	6	7
1. Emotional exhaustion	(.84)						
2. Interpersonal conflict	.37***	(.76)					
3. Quantitative workload	.40***	.27**	(.83)				
4. Organizational constraints	.39***	.35***	.35***	(.79)			
5. Emotional intelligence	-.36***	-.23**	-.29***	-.26**	(.94)		
6. Trait negative affectivity	.42***	.27**	.21**	.23**	-.20*	(.87)	
7. Trait positive affectivity	-.30***	-.22**	-.11	-.11	.22**	-.31**	(.77)
M	18.36	6.58	15.42	17.68	4.95	18.11	33.07
SD	8.99	1.56	4.51	5.37	.60	5.93	7.12

Note. Diagonal values are the internal consistency estimates for each scale.

* $p < .05$ ** $p < .01$ *** $p < .001$ (all two-tailed significance tests)

As shown in previous studies, trait EI was negatively correlated with emotional exhaustion; it was also negatively correlated with job stressors. NA was negatively correlated with emotional exhaustion, job stressors and trait EI.

Do job stressors predict emotional exhaustion beyond dispositional affectivity of the employee?

As predicted, job stressors, that is, interpersonal conflict, quantitative workload and organizational constraints were positively related to emotional exhaustion (see Table 1). As a more conservative test of these relationships, H1, which stated that job stressors are related to emotional exhaustion beyond dispositional affectivity, was tested with two multiple-regression analyses. The results revealed that both NA and PA, which were entered in the first step of the regression equation, were significantly related to emotional exhaustion ($\beta = .36, p < .001$ and $\beta = -.19, p < .01$, respectively), explaining 19.9% of the variance. Beyond these control variables, job stressors explained an additional 14.4% of the unique variance. The results showed that all three stressors were significant as predictors of emotional exhaustion: interpersonal conflict ($\beta = .15, p < .05$), quantitative workload ($\beta = .23, p < .01$), and organizational constraints ($\beta = .18, p < .05$). Therefore, H1 was fully supported.

Does EI moderate the relationship between job stressors and emotional exhaustion?

H2 stated that trait EI would moderate the relationship between job stressors and emotional exhaustion. We predicted that the positive relationship between job stressors and emotional exhaustion is weaker among employees who are high rather than low in trait EI. To test this hypothesis, we performed a moderated hierarchical multiple re-

gression analysis. First, we examined whether trait EI moderates the relationship between interpersonal conflicts at work and emotional exhaustion (*H2a*). The variables were entered into the regression equation in three steps. The control variables were entered in the first step. In the second step, we entered the “main effects” (interpersonal conflicts and trait EI). Finally, interpersonal conflicts x trait EI product term variable was entered in the third step. Interpersonal conflicts and trait EI were centered prior to creating the interaction term, allowing the beta-weight of the interaction term to be more directly interpretable (Cohen, Cohen, West, & Aiken, 2003). The results revealed that the interaction of interpersonal conflicts and IE term was significant ($\beta = -.20, p < .01$) and accounted for a significant portion of the variance in emotional exhaustion ($\Delta R^2 = .03, p < .01$; see Table 2).

Table 2.

Regression of interpersonal conflicts and trait emotional intelligence on emotional exhaustion

Model	R ²	ΔR^2	B	SE B	β
Step 1: Control	.20***				
Negative affectivity			.46	.11	.30***
Positive affectivity			-.11	.09	-.09
Step 2: Main effects	.30***	.10***			
Interpersonal conflict			.75	.45	.13
Emotional Intelligence			-3.65	1.05	-.25**
Step 3: Interaction	.33***	.03**			
Interpersonal Conflict x Emotional Intelligence			-1.52	.58	-.20**

Note. All coefficients are reported for the final step.

* $p < .05$. ** $p < .01$. *** $p < .001$.

To further examine if the interaction matches the hypothesis, we plotted the relationship between interpersonal conflicts and emotional exhaustion comparing people who scored more than 1 standard deviation above and below the average level of trait IE (see Figure 1). The interaction form was consistent with our predictions. Further, following guidelines suggested by Aiken and West (1991), a simple slopes analysis was conducted for participants who scored one standard deviation below and above the mean on EI. As predicted, interpersonal conflicts were positively related to emotional exhaustion among employees who were low in trait EI ($\beta = .47, p < .05$). In contrast, interpersonal conflicts and emotional exhaustion were unrelated among employees who were high in trait EI ($\beta = .05, p = .79$). In other words, interpersonal conflicts only increase emotional exhaustion for employees low (vs. high) in trait EI. Thus, *H2a* was supported.

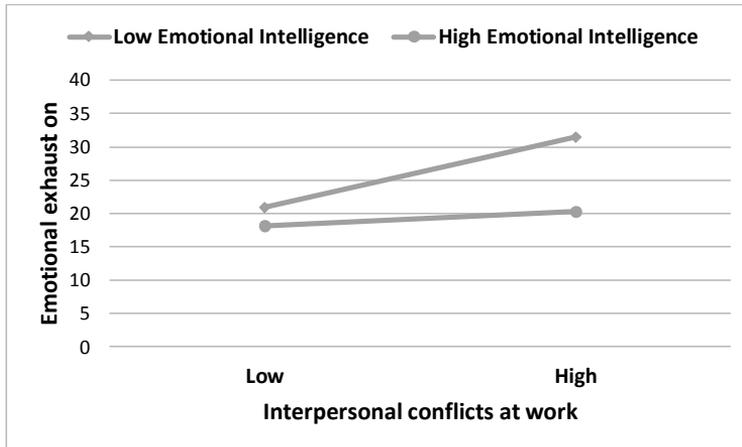


Figure 1. Experience of emotional exhaustion as a function of interpersonal conflicts at work and trait emotional intelligence. Low interpersonal conflicts are defined as mean -1 standard deviation from the mean; high interpersonal conflicts are defined as mean $+1$ standard deviation. Note that this high/low split is for illustrative purposes here only; the moderation analyses conducted use all variables as continuous variables.

H2b stated that trait EI would moderate the relationship between quantitative workload and emotional exhaustion, in such a way that the positive relationship between quantitative workload is stronger among persons lower in trait EI than those higher in trait EI. In testing this hypothesis, the interaction term was insignificant ($p = .287$) and did not account for a significant portion of the variance for emotional exhaustion scores (see Table 3). Instead, quantitative workload had a direct positive relationship with emotional exhaustion and trait EI and had a direct negative relationship with emotional exhaustion. Thus, H2b was not supported.

Table 3.

Regression of quantitative workload and trait emotional intelligence on emotional exhaustion

Model	R ²	ΔR ²	B	SE B	β
Step 1: Control	.20***				
Negative affectivity			.43	.11	.28***
Positive affectivity			-.17	.09	-.14
Step 2: Main effects	.32***	.12***			
Quantitative workload			.54	.14	.27***
Emotional Intelligence			-2.78	1.08	-.19*
Step 3: Interaction	.32***	.00			
Quantitative workload x Emotional Intelligence			-.24	.23	-.07

Note. All coefficients are reported for the final step.

* $p < .05$. ** $p < .01$. *** $p < .001$.

H2c stated that trait EI would moderate the relationship between organizational constraints and emotional exhaustion, in such a way that the positive relationship between organizational constraints is stronger among employees low (vs. high) in trait EI. In testing this hypothesis, the interaction term was not significant ($p = .127$) and did not explain any additional variance in emotional exhaustion beyond the main effects and did not account for a significant portion of the variance for emotional exhaustion scores (see Table 4). Instead, both organizational constraints and trait EI had a direct relationship (positive and negative, respectively) with emotional exhaustion. H2c was not supported.

Table 4.

Regression of organizational constraints and trait emotional intelligence on emotional exhaustion

Model	R ²	ΔR ²	B	SE B	β
Step 1: Control	.20***				
Negative affectivity			.46	.11	.30***
Positive affectivity			-.11	.09	-.09
Step 2: Main effects	.30***	.10***			
Organizational constraints			.75	.45	.13
Emotional Intelligence			-3.65	1.05	-.25**
Step 3: Interaction	.33***	.03**			
Organizational Constrains x Emotional Intelligence			-1.52	.658	-.20**

Note. All coefficients are reported for the final step.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Discussion

The purpose of our study was to examine the combined effect of job stressors and trait IE on burnout. We controlled for the dispositional affectivity of participants, as dispositional tendencies toward positive or negative emotions could create spurious correlations between the variables studied here. Indeed, our findings demonstrate that dispositional affectivity is an important factor in the burnout process and should not be ignored. We found that both NA and PA were significant predictors of emotional exhaustion, which is consistent with previous research (e.g., Wright & Cropanzano, 1998). However, our study demonstrates that job stressors significantly predict emotional exhaustion beyond the dispositional affectivity of employees. This means that job stressors lead to an increase in burnout rates regardless of the employees' general and stable emotional characteristics.

We predicted that trait EI moderates the relationship between job stressors and burnout. This prediction was supported only in relation to interpersonal conflicts at work. Our study demonstrates that the unfavourable effect of interpersonal conflicts on burn-

out was observed only among employees who were low in trait EI. In contrast, interpersonal conflicts and burnout were unrelated among employees who were high in trait EI. This demonstrates that when confronted with difficult interpersonal situations, employees who were high in trait EI experience less occupational stress than their low-in-trait-EI counterparts. This suggests that employees high in EI have better emotional skills at their disposal and are, therefore, better prepared to deal with unpleasant interpersonal situations. This favourable effect of trait EI has already been demonstrated by Mikolajczak, Nelis, Hansenne, and Quoidbach (2008), who showed that trait EI promoted the use of adaptive emotion-regulation strategies (e.g., positive reappraisal) and prevented the choice of maladaptive emotion-regulation strategies (e.g., self-blame) when experiencing negative emotions. There is also evidence that, when confronted with stressful situations, individuals high in trait EI are more likely to utilize coping styles that are generally regarded as adaptive (e.g., task-focused coping) rather than coping styles that are generally regarded as maladaptive (e.g., emotion-focused coping) (Saklofske, Austin, Galloway, & Davidson, 2007). Furthermore, Mikolajczak, Roy, Luminet, Fillee, and de Timary (2007) have demonstrated that individuals high in trait EI, in comparison to their low-in-trait-EI counterparts, showed significantly less reactivity to a stressful event at both physiological (i.e., salivary cortisol) and psychological (i.e., mood deterioration) levels. In general, the results partially support the notion of the JD-R model and provide further insight into emotional intelligence as a personal resource which fosters employees' mental health.

The moderating hypothesis was not confirmed in relation to organizational constraints and workload. The lack of interactional effects between these two variables could have been caused by certain methodological shortcomings. One such shortcoming was suggested by Van der Doef & Maes (1999) who argued that the interactional effects between an independent variable and a moderator occur more often when both variables refer to similar specificity. For example, we can expect emotional resources to reduce the effect of emotional stressors rather than other types of stressors. Interpersonal conflict at work is one of the most detrimental social stressors; therefore it is related to strong negative emotions. Employees high in EI cope with this stressor more effectively. In contrast, organizational constraints and workload are more organizational in nature; therefore it is likely that another type of resource (for example organizational resources-job control or social support) may minimize their negative impact on occupational stress. This is consistent with the matching principle proposed by De Jonge and Dormann (2003) who suggested that resources are likely to moderate the demands-outcomes relationship the most when the demands, resources, and psychological outcomes match each other, that is, when they are all on the same level, for example, they are all emotional features (De Jonge & Dormann, 2003). The next possible reason for these inconsistent

findings regarding the postulated interaction effect results from the fact that the research samples were heterogeneous occupationally. Some authors state that there exists too much diversity in job characteristics or working conditions because of the wide variety of jobs and occupations studied (De Jonge & Kompier, 1997). The likelihood of uncovering interaction effects in a strongly heterogeneous group is reduced due to the diversity of individual occupations and the variety that exists in job characteristics, working conditions and instrument specificity.

Our study has several limitations. Firstly, there was an unequal sex ratio in the sample – almost 60% of the participants were female. Therefore, the obtained data may apply to men to a lesser extent than they do to women. What is more, the cross-sectional design of the study does not allow us to draw any conclusions about causality. According to the JD-R model, job burnout results from long-lasting job stressors and lack of personal and organizational resources. Therefore, it is very important to capture the process's dynamic character. Future research needs to apply a cross-lagged approach in order to clarify the direction of the relationships between job stressors, job resources and negative outcomes. They should also take into consideration the interactional effect of personal and organizational resources – that is, emotional intelligence and organizational climate. Maybe these two resources operate in concert in reducing job stress.

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