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Connections Between Anxiety and Job Satisfaction Three Accesses 'Bottom-up' 'Top-down' and 'Transactional'

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Abstract

The study investigated the relations between anxiety and job satisfaction from the outlooks of three different approaches to pleasure, i.e. bottom-up, top-down, and transactional. Generally Job Satisfaction (GJS), diversification in satisfaction according to job aspects (Work Description Inventory), situational (four items from the Job Affect Scale) and steady job-related anxiety (Mood at location of work Questionnaire), neurosis and Extroversion (NEO-FFI) were investigated among 480 employees (240 males). Analyses done from the outlook of 'bottom-up' theories showed that two forms of job-related anxiety were negatively correlated with the level of satisfaction but were not related with diversification in satisfaction. Data analyzed from the outlook of the 'top-down' model presented that neurosis affected job-related anxiety and job satisfaction; moreover, steady anxiety reconciled the relation between neurosis and GJS. Data analysis within the transactional model shows that GJS depended on mutual action between steady anxiety, neurosis and Extroversion. The study discloses the possible methodological problems and measurement artificial of the 'bottom-up' and 'top down' approaches. In addition, it provides evidence supporting the adaptive role of anxiety and individual properties as its moderators.

Keywords: Anxiety, Job satisfaction, Extroversion, Neurosis, Feelings-perception, Negotiator Moderator

Introduction

Theories and study have developed into three different accesses the “bottom-up, top-down, and transactional “the last being a combination of the two traditional ones. Each of these approaches points to different factors as sources of job satisfaction and accepts various relations between affective phases experienced at the location of work and the perceptive estimations of one’s job. The goal of this article is introducing models of connections between anxiety and job satisfaction as suggested by these three approaches and to display the results of their empirical verification based on data from one group of subjects. Job satisfaction has been investigated by organizational and work psychology because it is related with all kinds of behaviors that are important for the organization (DeRue & Morgeson, 2007; Judge, et al, 2001). It is also included in study on pleasure as it is linked to health, and satisfaction with life disciplines (Judge & Ilies, 2004; Zalewska, 2004). In the transactional Model of Personal pleasure (Zalewska, 2004) a person’s position towards one’s own job is called job related personal pleasure. This position, similar to general personal pleasure (Diener, Lucas&Scollon, 2006; Zalewska&Brandstatter, 2001), includes two elements:

(a) Affective estimations indicating what people feel at the location of work, i.e. job-related affective pleasure (mood, strength and feelings).

(b) Perceptive estimations (what people think) of the job shown in estimation (to what extent the job is positive). These are called satisfaction and may apply to the job as a whole (generally Job satisfaction- GJS) or its element (e.g. satisfaction with colleagues, pay). In this article, job satisfaction is illustrated by the level of GJS and Diversification in aspect satisfaction (DAS), which means the level of diversification in satisfaction with seven different job aspects (colleagues, superiors, content, conditions, organization and management, development, pay).

Job-related anxiety and job satisfaction – Connection models accepted in the three study approaches

In Spielbergers thought (1966) anxiety as a say is commonly known as concern and strain go along by excitement of the autonomic disturbed system. Its traits element is adaptability linked to situational threatening factors. According to Reinforcement aptitude Theory-Revised (RST), anxiety appears as a response to the conflict of goals and creates 'watch-out for danger phases (Corr, 2008a). Anxiety as a characteristic is a relatively steady and achieved character which is proves as predisposition to perceive a broad spectrum of situations as possibly threatening and to react to them with a state of anxiety. People tends to feel anxiety clear the imperfectly to explain neutral and/or new competitions as negative (Eysenck, 1997) and to look-out for possible signs of danger (Corr, 2008a). Job-related anxiety is similar, but in this case it means feeling job-related situations as possibly threatening and reflects the quality of the person environment connection. The two forms of job-related anxiety will be analyzed: (a) Situational anxiety (SA), similar to a 'state', i.e. the strength of recently experienced strain at the location of work, emotional reactions to current situations at the location of work. (b) Constant anxiety (CA) similar to a 'characteristic', this means predisposition to experience anxiety at the location of work, the achieved inclination to perceive the job as a source of possible threats and to react with anxiety. Including the two forms of job-related anxiety will help verify if the analyzed connections are similar for SA and Constant anxiety (CA)

Bottom-up access – job-related anxiety and job satisfaction

John Lockes thought that human beings are born with a clean slate (tabula rasa) and investigate the world only through experience is the core of the bottom-up theories (Brief, 1998), which are goaled at describing and illustrate peoples adaptability. They assume that people are the same by nature', i.e. they share the same procedure and changes in internal phases induced by external factors. This access is controlled by case study, longitudinal and experimental study, which goals at discovering the mechanisms controlling behavior (among individuals and groups) common for all people (Eliasz, 2004). Behavioral changes between situations or in time are illustrated by affective, motivational and perceptive procedure. This access stresses that changes in internal phases and in behaviors are induced by changes in the environment (Pervin, 1996). The goal of the study is to find out how situations affect internal phases (situational access) or how these phases affect behaviors (process access).

In the bottom-up access, Behavioral changes are excluded or treated as the result of different situations or external competitions (e.g. anxiety is waked by environmental factors). Regarding job-related personal pleasure, it is supposed that affective phases are more important than perceptive estimations since they directly reflect the person's position towards his/her job as a whole and mirror the quality of interdependence between the person and the work environment. Affective phases thus conclude perceptive estimations, which should be treated as secondary rational justifications of emotional appraisals (Brandstatter, 1991).

In the bottom-up access, job-related anxiety is commonly known as the result of experiencing the situation in a professional environment and gives information on the possible threats related to work. According to the hypothesis that the affective phases are basic to perceptive estimations, it may be expected that job-related anxiety carry out two adaptive functions and has an effect on the levels of GJS and DAS. Affect as information theories (Martin & Clore, 2001; Watson, 2000) assume that the affective phases (mood and feelings) are direct sources of information on the relation with an object. If people experience negative affect, this means that the situation they are in is not advantageous or possibly threatening. If they treat affective phases as important information while developing perceptive estimations, we will observe mood- same estimation – more powerful, positive affective phases will be go along by more positive estimation; and more powerful, negative affective phases will be go along by less positive perceptive estimations (Martin & Clore, 2001; Schwarz, 2001).

In previous study, GJS and the different forms of anxiety were taken into consideration. When anxiety is treated as a generalized state or a characteristic (without specifying its object) then the study results are contradictory. Some study presented significant connections between job satisfaction and a general state of anxiety (e.g. Newbury-Birch & Kamali, 2001) or anxiety as a characteristic (Moreno, et al, 2006), but others showed no such relation (Altchiler & Motta, 1994; Ebrinc, et al, 2002). It is possible that the connection between anxiety and job satisfaction depends on anxiety specificity. Schwarz (2001), Wegener and Petty (2001) shown that people are aware that their affective reactions are not linked to an object and are able to correct the effect of their affective phases on the perceptive estimations of that object. If the anxiety (characteristic or state) is evaluated in general or is linked to a different area of life (e.g. family life), then the effect of anxiety is probably corrected, thus anxiety may not be correlated with job satisfaction and any actions goaled at anxiety reduction do not change the level of GJS (Altchiler & Motta, 1994). However, examining job-related anxiety showed significant negative relations between anxiety and job satisfaction in

different samples (Coldwell, 1985; Sharma & Sharma, 1989). On the basis of the bottom-up access, affects as information theories hypothesis, and empirical data, the following hypothesis was conceived:

H1.1. The higher the level of job-related anxiety, the lower the level of GJS.

Theories of affect as information show that affective states affect not only estimation as the results of perceptive information adapting, but also conclude the manners of information adapting. Schwarz (2001) and Watson (2000) argued that negative affective states, indicating complicated situations, induce systematic analysis and showing effort information adapting. Positive affective states, on the other hand, as indicate of benign situations, induce information adapting that is more investigative, external and automatic. Fiedler (2001) suggested that the effect of mood on information adapting is reconciliated by the type of motivation. In his opinion, positive affective phases induce appetitive motivation, which increase assimilation procedure (transforming incoming information on the basis of knowledge), examination and creativity. Negative affective states induce disgusting motivation, which increase systematic analysis and detailed incoming information adapting linked to the accommodation procedure in order to change lacking knowledge and to avoid mistakes.

According to Bless (2001), mood does not affect the capacity or motivation to process information, but it does elicit a focus on different types of content: a positive mood on general knowledge and a negative one on situational details. Based on a review of the report and her own study, Kolan'czyk (2004) concludes that anxiety starts a state of powerful concentration and a systematic analysis adapting mode. According to RST, worrying and rumination (detailed information adapting linked to a threat) are the traits of anxiety (Corr, 2008a). Assuming that job-related anxiety starts the analysis mode of information adapting and a focus on details for various job aspects, one can expect that:

H1.2. the job related anxiety, the level of DAS.

Top-down outlook – person traits, job-related anxiety and job satisfaction

According to Immanuel Kants idea Top-down theories are that the human mind constructs a vision of the world according to a priori knowledge (Brief, 1998). Their goals are describing and illustrate differences between people and are based on the hypothesis that people are different by nature (Brief, 1998; Zalewska, 2004), i.e. people differ in their genes. These genetic differences make responsive one to experience specific internal phases and to explain competitions, thus causing relatively constant characters towards specific behaviors (character access). This access is controlled by lawmaking study, whose goal is to discover the general characteristics that are important for modification and happen with various energies among individuals (Eliasz, 2004). On the basis of the constant differences between people in the strength of characteristics (differential access), differences in feelings, thoughts and behaviors are conclude because the characteristics enable for a descriptive statement, forecasting and interpretation of behaviors (Pervin, 1996).

Behavioral changes are neglected, as it is supposed that genetically conditioned differences in the characteristics 'falsify 'the acceptance of reality and situations in a fixed way, i.e. they cause differences in behavior among people, thus neglect other variables as these differences are steady in time and across situations. The above hypothesis is the basis for many theories and study, including the Five-Factor Model of personality – FFM (Costa & McCrae, 1992; Goldberg, 1990).

According to this access, job-related anxiety informing of a possible threat at the location of work does not necessarily play an adaptive role since its strength depends on genetically concluded characteristics. These characteristics make responsive them to experience particular feelings and to develop specific estimation (Costa & McCrae, 1980; Gray, 1981). Based on the described hypothesis, two models of interdependence of job-related anxiety and job satisfaction (its level and diversification) may be conceived (Rusting, 1998): (a) arbitration model anxiety as a negotiator between characteristics and job satisfaction: the characteristic conclude the anxiety experienced at work and the anxiety conclude job satisfaction, (b) Coexistence model, anxiety does not play an adaptive role, job-related anxiety and job satisfaction are linked to one another (which lies in the focus of the bottom-up model) since they are both concluded by the strength of a given characteristic with which they are correlated more strongly than with each other. The most known variant of FFM includes the following five personality measures: neurosis, Extroversion, Openness to Experience, Agreeableness, and thoughtfulness (McCrae & Costa, 1990; Zawadzki, et al, 1998). It is supposed that the differences between adults in the strength of these characteristics are relatively constant, which permits for the forecasting of mental procedure and behaviors (Strelau, 2002). This analysis focuses on Extroversion and neurosis, the basic personality characteristics which have the highest heritability indices, as determining factor of anxiety and job satisfaction. Extroversion and neurosis in FFM are strongly correlated with Activity and Emotional Reactivity in the Regulative Theory of disposition ($r = .63$ and $r = .64$, respectively – Zawadzki et al., 1998, p. 62) and with Extroversion and neurosis in Eysencks (1990) theory ($r=.71$ and $r=.73$, respectively–Zawadzki et al., 1998, p. 65).

Extroversion and neurosis in FFM are linked to emotional functioning: Extroversion is sometimes even called positive emotionality and neurosis is called negative emotionality (Brief, 1998; Watson, 2000). Extroversion includes six component characteristics: sociability, aggressiveness, excitement, activity, excitement- seeking, and positive feelings (the imperfectly to react with positive feelings). It concludes the imperfectly to take up activity (tasks and social mutual actions) and the level of power. It also makes pre character to positive experiences and feelings linked with aptitude to interesting stimuli (like BAS in RST – Corr, 2008b). Neurosis also includes six component characteristics: Anxiety, angry enmity, sadness, impulsiveness, aptitude, and self-consciousness. It make responsive one to negative experiences and feelings because of high aptitude to disgusting stimuli (like FFS in RST – Corr, 2008b). The description of neurosis shows that one of its elements is anxiety, so one may expect significant interdependence between neurosis and job-related anxiety. Since the 1980s study has focused on identifying personality- related determining factor of personal pleasure. Its results have consistently shown that positive affect is linked to Extroversion and negative affect to neurosis, and life satisfaction depends on both of these characteristics, which lies at the basis of the catchy metaphor of a happy personality consisting of high emotional stability and Extroversion (DeNeve & Cooper, 1998; Francis, 1999). Similar connections have been found for job-related personal pleasure (Brief, 1998; Judge, Heller, & Mount, 2002). It may thus be expected that these characteristics conclude the level of GJS. If the affective phases affect the way people process information, it may be assumed that characteristics improvement negative or positive feelings are also linked to various manners of information adapting and, as a result, conclude DAS. Some data show that higher neurosis is related with more analysis and systematic strategies of information adapting (Necka, 2000). Based on the characteristic traits and data from study, two hypotheses same with the coexistence model and one same with the arbitration model have been conceived:

H2.1. The higher the Extroversion, the higher the GJS and the lower the DAS.

H2.2. The higher the neurosis, the higher the job-related anxiety, the lower the GJS and the higher the DAS.

H2.3. Anxiety will reconcile the effect of neurosis on the levels of GJS and DAS.

In this research two traditional approaches are disapproved as lacking tools for predicting and illustrate people behaviors (Eliasz, 2004; Zalewska, 2004). The top-down access has been disapproved for being too general – the differences in abstract characteristics do not enable for the forecasting of behaviors in different situations. For example, Extroversion is positively correlated with experiencing positive feelings and job satisfaction, but in repetitive situations direct outwards experience less powerful positive feelings than turn inwards upon itself do, and they report lower job-related personal pleasure if the work environment limits Interpersonal relationship (Brandstatter, 1991). The bottom-up access has been disapprove for being too specific since the show general mechanisms controlling behavior happen only in specific conditions or only among certain individuals.

Several researcher show that the general regularity as accepted by Herzberg or Hackman and Oldham that job enrichment increase job satisfaction, and happens only among people with high growth needs (Spector, 1997). After realizing the weaknesses of the two traditional approaches, attempts at integration have been made. The transactional Model of Personal pleasure (Zalewska, 2004) is one of them. In this model it is supposed that affective and perceptive estimations can affect one another but they do not have to be same. It has also been supposed that the level of estimations and their specific relations depend on other variables and can affect them. According to the above hypothesis, study into personal pleasure calls for a mutual action access and the integration of procession and differential approaches. The basis of the model is the hypothesis that people differ in their characteristics, and the characteristic differences are prove in the existence of specific mechanisms which change the meaning of other factors. Person characteristics change emotional (Strength and duration) and perceptive information adapting (e.g. procedure of concentration – Szymura & Wodniecka, 2003; strategies of adapting – Necka, 2000). They also change the connections between perceptive estimations – GJS relies to a greater extent on job aspect satisfaction among people with lower reactivity (Zalewska, 2001).

Among the latter, the relations between GJS and satisfaction with particular job aspects depend on their controlling values (Zalewska, 1999). Characteristics serve as moderators for internal and external factors, which causes similar situations to bring out different procedure, and the same procedure and affective phases can lead to different behaviors among people with different characteristics (Furnham, 1991; Zalewska, 2004). Personality (disposition) characteristics change the Connection between perceptive and emotional personal pleasure estimations (Zalewska, 2004).

They may thus also change the meaning of job-related anxiety and serve as moderators for the connection between anxiety and job satisfaction. Existing data show that a lower consistency between emotional estimations and GJS happens among people with higher general reactivity in a new location of work (Zalewska, 2001) and among people with the Type A behavior, pattern in contrast to those with the Type B behavior pattern (Zalewska, 2006). Type A behavior, which is also linked to a higher risk of heart disease, correlates positively with Extroversion and neurosis (Eysenck, 1990), i.e. it shows partialities towards highly stimulating activity and disposition for strong positive and negative feelings linked with high aptitude to both interesting and disgusting stimuli. Similarly, Zawadzki and Strelau (1997) show that people with the Type A behavior pattern are high in Activity and Emotional Reactivity. Such a formation of characteristics, also described as the hot-tempered

type, actually means a non-compatible structure of disposition with a low capacity to process stimulation and an imperfectly to ineffective stimulation control causing overstimulation.

Referring to Hippocrates-Galen disposition classification, we can distinguish four disposition types as done by Eysenck (1987) or Zawadzki and Strelau (1997). Another non compatible disposition formation, besides from the hot-tempered type, is the passive type, which is characterized by low activity, emotional reactivity, Extroversion and neurosis, low aptitude to interesting and disgusting stimuli as well as low disposition to experience positive and negative feelings. The two remaining types signify a compatible disposition structure. The optimistic type is characterized by a high level of Extroversion (activity) and a low level of neurosis. Such a formation of characteristics means high aptitude to interesting stimuli, predisposition to experiencing positive feelings, low aptitude to disgusting stimuli and low predisposition to negative feelings. The depressed type means low Extroversion (activity), high neurosis (emotional reactivity), low aptitude to interesting stimuli and an imperfectly to experience positive feelings, high aptitude to disgusting stimuli and an imperfectly to experience negative feelings. Zawadzki and Strelau (1997) suggest that non compatible disposition structures are the Disposition Risk Factor; they prevent modification and increase the risk of pathology. According to RST, various formations of characteristics linked to greater aptitude to positive or negative competitions cause specific differences in behavior, social modification and emotional aptitude to confusions (Corr, 2008b).

Taking the above into consideration, one may assume that the formations of characteristics linked to the different levels of aptitude to interesting and disgusting stimuli can change the meaning of anxiety and its adaptive functions. Thus, the study will verify if the effect of job-related anxiety on GJS and DAS depends on person traits and if the effect of neurosis on job satisfaction changes according to the anxiety level and Extroversion, which conclude aptitude to interesting stimuli and positive feelings. The goal of the analyses is to verify the connections in various models: *1. Does anxiety explains job satisfaction if the role of neurosis is controlled? 2. Does job satisfaction depend on the mutual action between Extroversion and neurosis and job-related anxiety, whether the effect of job-related anxiety on job satisfaction (level and diversification) depends on person traits and whether the effect of neurosis on job satisfaction depends on the level of anxiety and Extroversion? 3. Does job-related anxiety (situational or constant) affect GJS and DAS? 4. Do genetically conditioned person characteristics conclude the level of anxiety, GJS and DAS?*

Methodology of Research

In this research 480 people Participated, including 158 managers 162 teachers and 160 expert employees (around 50% of women in each group), aged 22–55 years old ($M = 38.9$ years, $SD = 9.8$), and general job train was between 3 year and 37 years ($M = 11.7$ years, $SD = 9.9$), mean train on the job position was 8.7 years ($SD = 5.6$). The research, after agreeing to Participant in the study, accepted a collection of instruments to be filled in within 10- 15 days at a place and time of their choice. Work Description Inventory (Neuberger & Allerbeck, 1978) was used to estimate GJS and DAS. It permits for GJS to be measured independently from satisfaction with the five factors of jobs (colleagues, conditions, organization and management, development, and pay). Each item is provided with a five point Likert scale (1 is dissatisfied, 5 is very satisfied), to which values from 1 to 5 are apportioned. The factors satisfaction variance – the variance (SD -squared) of satisfaction according to the five factors of jobs was calculated for each person separately as an index of DAS. Two instruments were

used to estimate constant and situational job-related anxiety. CA was investigated with the Mood at location of work Questionnaire by Zalewska.

The study subjects showed how often and how powerfully they felt the 18 affective phases applying to three measures of mood: entertainment, power and strain. Each measure has two polarities. Strain is illustrated by adjectives such as: uncomfortable, strained, worried, disturbed, self-controlled, informal, peaceful, at feels relaxed – which are arrangement of data's of CA. The internal dependability of CA in the investigated group was sufficient – Cranach's Alpha was 0.783. The Job Affect Scale (Brief, 1998) permits us to estimate the strength of positive and negative affects experienced at work, i.e. during the 2 weeks prior to the estimation. SA (strength of strain currently experienced at the location of work) was investigated with four items (in trouble, afraid, disturbed, and restless) provided with 5-point scales. Considered the small number of items in this scale, SA dependability was also sufficient (Cranach's Alpha = 0.691). Neurosis and Extroversion were measured with NEO-FFI (Costa & McCrae, 1992; Zawadzki et al., 1998). Subjects were divided into two groups (low and high arrangement of data for all variables) according to the median.

Results

In this case we can examine connections among variables but we cannot derive their causality (Tabachnick & Fidell, 2007). Thus, terms such as affect or dependence are used in this research in their statistical meaning.

Table 1. Descriptive parameters of examined variables and correlations between variables

Variable	N	M	SD	DFS	SA	CA	N	E
GJS	480	6.86	1.98	-28***	-19**	-37***	-28***	25**
DFS	480	3.02	1.78	-	08	07	26**	-09
SA	480	3.98	0.98		-	59***	51***	-17*
CA	420	3.96	0.92			-	46***	-09
N	472	19.99	8.09				-	-46***
E	478	31.89	6.66					-

N–Number; M–mean; SD–standard deviation; GJS–generally Job Satisfaction, DFS–Diversification in facet satisfaction; SA–Situational Anxiety; CA–Constant; Anxiety; N–neurosis; E –Extroversion.

Correlations are significant at: * $p < .05$. ** $p < .01$. *** $p < .001$

Table 1, showed that SA and CA were related with the level of GJS negatively, which was expected from the bottom-up outlook. However, DAS was not linked with the two investigated forms of anxiety. As was expected from the top-down outlook, neurosis was correlated negatively with the level of GJS and positively with DAS, as well as with both kinds of anxiety. Extroversion was positively related with the level of GJS. However, it was not related to DAS but was slightly and negatively related with SA. The two types of anxiety were strongly correlated with one another, the higher the CA, the higher the SA (and vice versa), but not strongly enough for them to be treated as same. In order to check if their relation comes from the effect of neurosis, hierarchical regression analysis and the Sobel test were directed.

Table 2. Neurosis (N) and CA as predictors of SA (left) or Neurosis and SA as forecaster of CA (right) – results of hierarchical regression analyses

Situational anxiety (SA)				Persistent anxiety (PA)			
Variable	B	SEB	β		B	SEB	β
Step 1				Step 1			
N	.076	.009	.589***	N	.039	.007	.436***
Step 2				Step 2			
N	.048	.008	.379***	N	.016	.007	.180*
CA	.633	.095	.443***	SA	.343	.049	.488***
R2 = .289 for Step 1				R2 = .198 for Step 1			
$\Delta R2 = .153$ for Step 2 ($p < .001$)				$\Delta R2 = .179$ for Step 2 ($p < .001$)			
Sobel test = 5.097****				Sobel test = 5.786****			

* $p < .05$. *** $p < .001$. **** $p < .00001$

The results of the regression analyses and significant Sobel tests (Table 2) inform us about incomplete arbitration (Frazier, Tix, & Barron, 2004). After including anxiety in the second step of the analysis, the regression coefficient of neurosis decreased, but its direct effect in the second step was still above zero and significant. The specific form of anxiety in addition illustrates the level of the other form of anxiety. Neurosis illustrates 30.2% and CA in addition illustrates 16.8% of SA variance, together they illustrate 47.0% of its variance.

The results present that currently experienced anxiety depends on the imperfectly to perceive threat at work, aptitude to disgusting stimuli (neurosis) and the imperfectly to react with anxiety to a given work environment. Stronger CA (an imperfectly to react with anxiety at work) increases SA the strength of actual strain at the location of work. Neurosis (19.8%) and SA (18.6%) together illustrate 38.4% of CA variance. CA depends on aptitude to disgusting stimuli (neurosis), the current intuition of a possible threat at the location of work (common contribution) and the strength of strain induced by environmental factors currently acting in the location of work (additional effect of SA). Higher SA increases imperfectly to react with anxiety at the location of work and its personal interpretations. It is worth observed that neurosis illustrate CA to a lesser extent (19.8%) than SA (30.2%), which permits us to conclude that the strength of current strain depends more on neurosis than does the imperfectly to react with anxiety at the location of work, which probably depends to a greater extent on relatively steady environmental factors.

In the top-down access, two models are measured, coexistence and arbitration. In order to verify the arbitration model, hierarchical regression analyses were directed. The characteristic was included in the first step and anxiety in the second. If anxiety is the negotiator of the effect of neurosis on job satisfaction, it should be its significant forecaster and should decrease the predictive value of the characteristic. If the coexistence model is exact, then the effect of anxiety will not be display when neurosis is taken into account.

Table 3. Neurosis and PA (left) or Neurosis and SA (right) as forecasters of GJS – results of hierarchical regression analyses

Variable	B	SEB	β	Variable	B	SEB	β
Step 1				Step 1			
N	-.038	.016	-.256***	N	-.039	.009	-.250***
Step 2				Step 2			
N	-.019	.015	-.124	N	-.036	.016	-.216**
CA	-.498	.166	-.287***	SA	-.093	.096	-.070
R2 = .054 for Step 1				R2 = .068 for Step 1			
$\Delta R2 = .069$ for Step 2 ($p < .001$)				$\Delta R2 = .006$ for Step 2 ($p = .347$)			
Sobel test = 3.4210***				Sobel test = 0.980			

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

Results in Table 3 shows that constant job-related anxiety is a partial negotiator between neurosis and the GJS. This means that higher neurosis leads to a higher CA, and through this it affects perceptive estimations and decreases the level of job satisfaction. Neurosis and CA together illustrate 13.2% of the variance of GJS. Besides from the effect of neurosis reconciliated by the CA, it had an additional effect on job satisfaction. Its joint (reconciliated and direct) affect illustrate about 6.8% of the variance of GJS. CA increase the percent of illustrates variance of job satisfaction (about 7.9%). Its general effect reflects an imperfectly to perceive threat (affected by neurosis) and specific information of how threatening one's own work environment is the effect of the influence of the person environment Connection. Besides from a joint affect, neurosis and CA independently conclude the level of GJS. Data in Table 3 did not verify the expectation that SA serves as a negotiator between neurosis and GJS. The Sobel test value was insignificant and the results of the hierarchical regression analysis shown that the only significant forecaster of GJS was neurosis, if it was controlled then SA in addition illustrate only 0.5% of the variance. According to these data, we can conclude that the zero order correlation ($r = -.19.6$) between SA and GJS (Table 1) means a false connection (coexistence), i.e. these variables correlate with each other because they are concluded by neurosis. Regarding DAS, the results of the hierarchical regression analyses and Sobel tests were fully consistent with zero-order correlations (Table 1), DAS is dependent on neurosis only.

Constant and situational job-related anxieties do not reconcile between neurosis and DAS (appropriate Sobel test values were 0.009 and 0.496) and do not enable one to predict the DAS when neurosis is controlled. So that verify the assumption that personality characteristics can simplify the effects of other variables on the level of GJS and DAS and in order to control the effects of all the variables (Field, 2009, pp. 397–399), the 4-factor MANOVA was planned. The artificial results of multivariate tests and one variable test (executed in MANOVA analysis) for the two measures of job satisfaction (GJS and DAS) with neurosis, Extroversion, SA, and CA as factors are displayed in Table 4.

Table 4. Effects of Neurosis (N), Extroversion (E), CA, SA, and interactions between them on job satisfaction (GJS and DFS) – results of 4-factor MANOVA

Sources	Univariate tests for OJS			Univariate tests for DFS			Multivariate tests		
	F ¹	n ²	p	F ¹	n ²	p	F ¹	n ²	p
N	3.35*	.019	.079	3.58*	.019	.068	2.88*	.038	.074
E	0.29	.006	.645	0.29	.002	.660	0.26	.003	.842
CA	4.79*	.029	.038	0.43	.003	.542	2.99*	.039	.058
SA	0.16	.002	.765	0.65	.004	.452	0.47	.005	.675
N*E	0.57	.004	.487	0.55	.004	.479	0.47	.005	.669
N*CA	0.78	.005	.398	1.39	.008	.256	1.38	.018	.285
N*SA	0.06	.000	.829	1.29	.007	.276	0.79	.009	.497
N*E*CA	4.77*	0.27	0.36	0.36	.002	.617	2.43*	.028	.098
N*SA	0.26	.002	.668	4.29	.027	.046	2.58*	.029	.088
E*SA	0.37	.003	.579	1.17	.007	.299	0.69	.007	.552
N*E*SA	0.16	.002	.727	0.48	.003	.509	0.39	.005	.700
CA*SA	0.34	.003	.599	0.03	.000	.900	0.17	.003	.875
N*CA*SA	2.89*	.018	.098	1.32	.008	.268	1.78	.019	.195
E*CA*SA	1.28	.008	.269	0.19	.002	.678	0.89	.009	.438
N*E*CA*SA	0.47	.003	.525	1.49	.008	.239	1.18	.017	.332
Error	1.26			1.35					

F₁ – univariate tests with df(1, 198); F¹ – multivariate tests with df (2, 195).

Significance of F values: # p < .10. * p < .05.

The multivariate tests show only statistical partialities (p < .10) that the formation of the two estimations of job satisfaction depends on neurosis, CA, mutual action between neurosis, Extroversion and CA, as well as on mutual action between neurosis and SA. The weak connections can be illustrate by the fact that each of these two perceptive job estimations reflects a different aspect of evaluation and is related to other variables. Regarding DAS, the results in Table 4 inform us that it did not depend on Extroversion, SA, and CA, but was affected by neurosis (imperfectly - p = .068) and mutual action between neurosis and SA Simple effects analyses shown that situational anxiety did not affect DAS among people with a low – F (1, 115) = 0.89, ns – nor high level of neurosis, F (1, 98) = 1.02, ns. The effect of neurosis was not significant among people with a low level of SA, F (1, 115) = 0.06, ns – employees with low strength of a current strain prove middle values of DAS regardless the level of neurosis. Yet it was significant among people with high SA, F (1, 98) = 5.21, p = .041. Among individuals who experienced high strain at the location of work, those with high neurosis conceived more diversified estimations of satisfaction with the job aspects than those with low neurosis. The results in Table 4 show that GJS depends on the level of CA and on second-order mutual action of neurosis, Extroversion and CA. The results of simple effect analyses, where the two remaining variables were controlled, are displayed in Table 5.

Table 5. Simple effects (with other variables controlled) of CA and neurosis on GJS

Effects of CA on GJS					Effects of Neurosis on GJS				
Among	df	F	n ²	p	Among	df	F	n ²	p
F-en	1.52	1.51	.044	.246	eca	1.54	6.79*	.136	.016
M-en	1.75	8.18**	.122	.007	eCA	1.68	3.75#	.063	.064
S-En	1.68	6.65*	.098	.028	Eca	1.55	5.46*	.099	.028
C-EN	1.39	0.03	.002	.899	ECA	1.46	0.00	.000	1.00

Significance of F values. # p < .10. * p < .05. ** p < .01.

Data in Table 5 show that the significant effect of CA on GJS happen among people with low Extroversion and high neurosis (depressed) and with high Extroversion and low neurosis (optimistic type) people experiencing a higher level of CA presented lower levels of GJS. The effect of neurosis on GJS was not significant among people with high levels of Extroversion and CA, if hot-tempered and optimistic types present a strong imperfectly to react with anxiety at the location of work then they do not differ in GJS, though they do differ in neurosis. A higher level of neurosis leads to a lower level of GJS among extraverted people with a lower level of CA and among people with a low level of Extroversion and a high level of CA.

Discussions

Two types of anxiety perception connections between job related anxiety and GJS and between anxiety and DAS were analyzed according to three study outlooks. In the bottom-up access it is supposed that job-related anxiety carry out an adaptive function, it indicate a complicated situation and possible threats at the location of work. It is then expected that anxiety will affect estimation negatively, thus it will decrease GJS (H1.1). In addition, it is supposed that a higher level of anxiety will activate the analysis mode of information adapting in order to develop a more complex, detailed and specific representation of the work environment, which should result in higher DAS (H1.2). In the top-down access it is supposed that genetically conditioned characteristics predisposing towards specific experiences (Extroversion and neurosis) affect feelings, estimation and manners of information adapting (H2.1 and 2.2).

Anxiety may not play an adaptive function and it may not affect the perceptive estimations, but will only co- happen with them. It carries out such a function only if the effect of neurosis on perceptive estimations is controlled, and anxiety still illustrates them (H2.3). In the transactional access it is supposed that feelings and perceptive estimations can affect one another but they do not have to be same. Their interdependence depends on other variables, including person traits and their mutual actions. Personality characteristics and their mutual actions can change the meaning of job-related anxiety as a source of information and its adaptive functions, thus influencing the connection between anxiety and perceptive estimations GJS and DAS. It is also expected that the role of neurosis may change according to the level of anxiety and Extroversion. The two forms of job-related anxiety have been taken into account in the study in order to check whether the analyzed connections are similar for SA (the strength of current strain) and for CA (the imperfectly to react with anxiety), i.e. whether they carry out similar functions.

The results achieved according to the three approaches do not verify the hypothesis (H1.2 and 2.3) that anxiety affects DAS. This supposition was derived from findings indicating that higher

negative affective phases lead to a more systematic, analysis and detailed adapting of information (Bless, 2001; Kolan'czyk, 2004; Watson, 2000). Although negative feelings probably play an important function, as analyses done according to the top down access have shown, DAS depends on neurosis (H2.2), which concludes a more general aptitude to disgusting stimuli and emotional aptitude to negative affective phases. This regularity is consistent with data collected by Necka (2000) – that higher neurosis starts more analysis strategies of information adapting. However, the data achieved in this research according to the transactional access have shown that DAS depends on the mutual action between neurosis and SA. A formation of the data suggests that high strain creates a condition that induces other partialities for information adapting according to the level of neurosis.

Among individuals with low neurosis it starts more holistic strategies, thus resulting in lower DAS, and among individuals with high neurosis it starts more analysis strategies, thus resulting in higher DAS. Due to these different partialities among people with low and high neurosis experiencing high strain at the location of work, the difference in DAS becomes significant. These findings are consistent with results which have shown that correlations between satisfactions with job aspects (Zalewska, 2001) or between health evaluation, job and life satisfaction (Zalewska, 2004) were lower among high reactive people rather than low reactive people at a new location of work, because reactivity is related to neurosis (Zawadzki et al., 1998).

These data enable us to derive that in safe conditions, which do not evoke highly concentrated negative feelings, people with low and high neurosis will not differ in their information adapting manners and diversification of perceptive estimations, but in conditions evoking highly concentrated negative feelings such differences will be the strongest. Moreover, since people with high neurosis are more susceptible to negative phases, their imperfectly to use more analysis strategies resulting in higher diversification of perceptive estimations will happen more often in natural settings than the imperfectly to use more holistic strategies which take place among people with low neurosis as they will experience highly concentrated negative feelings less often. In spite of the expectation that higher Extroversion is related with lower DAS (H2.1), in this research Extroversion was not related to DAS. Probably aptitude to interesting stimuli alone is lacking to affect information adapting manners resulting in differences in DAS. In order to check its role accurately, other variables should be controlled. The findings acquire from the three outlooks show the complicated quality of connections between job-related anxiety and GJS. Analyses executed according to the bottom-up theories verify a general imperfectly that CA and SA fulfill a supposed adaptive function and negatively affect the level of GJS (H1.1).

These results are supported by Martin and Clore (2001), Sharma and Sharma (1989) or Watson (2000). Analyses planned according to the top-down theories verify that Extroversion is positively related with GJS (H2.1) and neurosis is related positively with job-related anxiety (SA and CA) and negatively with GJS (H2.2). From the data we can assume a conclusion about the general differences between people, i.e. people with a higher level of neurosis experience stronger anxiety and lower job satisfaction. The results are consistent by Brief (1998), Furnham (1991), Judge et al. (2002) or Spector (1997). Regressions analyses show that CA reconciliates the effect of neurosis on GJS and is in addition responsible for illustrate it. GJS and SA only co- happen – the relation between them is the result of the effect of neurosis, and if the latter is controlled then anxiety does not predict satisfaction. Burke et al. (1993) displayed similar results.

Upon joining the two outlooks as mentioned above, the results show that the level of GJS depends on CA and the mutual action between CA and personality characteristics. According to the

level of anxiety and Extroversion, the role of neurosis as a determinant of GJS changes, i.e. it has a negative effect among people with the two formations of these two variables, but a positive impact of neurosis on GJS is displayed among people with low levels of Extroversion and CA (relief). The effect of CA on GJS depends on a specific formation of person characteristics. It is found only among people with an imperfectly to effective control of stimulation (Zawadzki & Strelau, 1997), with a controlling aptitude to one kind of stimulus and an imperfectly to experience negative versus positive feelings (Brief, 1998; McCrae & Costa, 1990; Watson, 2000). Among depressed (high neurosis and low Extroversion) who are more responsive to disgusting than interesting stimuli, a high level of CA indicates a complicated situation and possible threats at the location of work, which significantly decrease their GJS (the lowest score). Moreover, since they usually experience negative feelings, the low level of CA causing relief increases their GJS.

Among optimistic type people (low neurosis and high Extroversion), who are more responsive to interesting than disgusting stimuli, a low level of CA informs them that their work environment is profitable, which increases their GJS (the highest score). The impact of CA on GJS is not shown among people with a non-compatible formation of characteristics and with an imperfectly to ineffective control of stimulation (Zawadzki & Strelau, 1997), among these with a high disposition (hot-tempered) and those with a low disposition (passives) for both positive and negative feelings. When relating these results to RST one can say that the effect of CA is not significant for people whose both basic measures – FFFS (aptitude to disgusting stimuli) and BAS (aptitude to interesting stimuli) are hyperactive or hypoactive at the same time. These people are supposed to be tending to choose risky behavior and to stay in dangerous or harmful situations. Among some of them (especially understimulated passives) high anxiety can become a sign of challenge which increases the importance of situations (job) and starts commitment to challenging activity (Zawadzki & Strelau, 1997).

Among others it can become a signal of rewards or relief linked with avoiding discipline, which facilitates appetitive motivation and promotes gambling and risky behavior (Corr, 2008a, 2008b). So, among these people (with a lack of control in aptitude systems) a high level of anxiety probably has a more ambiguous instructive meaning than the one supposed in the affect as information theories, it informs them about the poor quality of their connection with the environment and about the possible profits of the connection. Due to this ambiguous meaning, anxiety does not affect the level of their GJS. SA (the strength of current strain at work) and CA (the imperfectly to react frequently with highly concentrated strain at the location of work) are interrelated and co-concluded by neurosis, and SA to a higher degree than CA, which probably depends to a greater extent on relatively steady work environment factors. Although generally they are correlated with GJS and not related with DAS, the more complex analyses show that they carry out different functions. CA does not contribute to predicting DAS, but it partially reconciliates the effect of neurosis on GJS and in addition increases the forecasting of GJS.

However, if both forms of anxiety, neurosis and Extroversion are included into the analysis, then CA affects GJS only among people with specific combinations of characteristics. These data suggest that personality characteristics determining aptitude to disgusting and interesting stimuli change the meaning of anxiety and its adaptive functions only among some people who do a high imperfectly to react frequently with highly concentrated strain at the location of work bear information on the negative valence of their situation at work and affects their GJS. SA can be illustrated as a reaction to the work environment concluded by neurosis accompanying GJS only, which was already shown by Burke et al. (1993).

The lack of contribution of SA to predict GJS can be illustrated according to Forgas (2001) affect infusion model. He accepts that the impact of affective phases on perceptive estimations can be shown when people develop opinions on new and complex objects. If they have much experience with an object and estimation developing is linked with recalling and reconstruction of previously formed opinions, then the effect of current affective phases fades. But the results of analysis including both forms of anxiety and both personality characteristics show that a high level of SA (highly concentrated strain) creates a condition in which people with low and high neurosis differ in information adapting manners and, as a result, in DAS.

Conclusions

The results have shown different results for the two investigated types of anxiety–perception connections that are linked with different forms of anxiety. The data show that diversification in satisfaction according to job aspects depends on mutual action between neurosis and SA and contributes to a better understanding of the effect of feelings on perceptive information adapting. Data indicating that the level of GJS is dependent on second-order mutual action between CA neurosis and Extroversion contribute to knowledge on emotion judgment consistency. They have also presented that characteristics determining aptitude to disgusting and interesting stimuli can change the meaning of anxiety and its adaptive function.

The results above have shown the possible measurement artificial of the bottom-up and top-down approaches and have provided evidence that a critique of these two approaches as lacking for the forecasting and interpretation of human behavior is justified (Eliasz, 2004; Zalewska, 2004): (a) The top-down access shown the general regularity that DAS is related to neurosis, but it will happen only if people have experienced high SA (highly concentrated strain at work). Study directed from the joint outlook of the two approaches is more expensive, more difficult and the patterns shown therein are less elegant in comparison to those derived from study done according to the traditional approaches. The joint outlook, however, permits for a more strict forecasting and interpretation of behaviors and thus for a better integration of theory and train in the future – the path followed by 21st century psychology. The until now gathered data encourage further exploration of the Connection between anxiety and perceptive estimations according to personality characteristics, including experimental and longitudinal studies (with other measures) which will enable us to derive their causality. (b) The bottom-up access shown a general mechanism that anxiety decrease the level of job satisfaction, which in fact applies to CA and is prove among certain individuals but it does not apply to others (steady introverts and neurotic extraverts–passive and hot-tempered types). The top-down access shown the general differences that people with a higher level of neurosis experience lower job satisfaction, which does not enable one to predict such differences in various situations, e.g. neurotic introverts (depressed) clear higher GJS than do steady introverts (passives) if their CA is low.

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