

## Self-conception, personality traits, and evaluations of cinematic violence

L.Ya. Dorfman<sup>1</sup> and M.V. Zubakin<sup>2</sup>

<sup>1</sup>Perm State Academy of Art and Culture, Gazeta "Zvezda" str., 18, Perm, 614000, Russia

<sup>2</sup>Perm State University, Bukirev str., 15, Perm, 614068, Russia

E-mail: [dorfman07@yandex.ru](mailto:dorfman07@yandex.ru)

**Abstract.** Drawing upon existing conceptions of how violence in mass media influences spectators and previous efforts to provide relevant research, the new framework examines the perception of violence in films. An integrative mediational framework is developed to explicate some personality variables as mediators between self-conception (plural self) and psychosemantic evaluations of films with violent scenes. 3 levels of integration are suggested. They are specified as low, middle, and high. Raw data were gathered from a sample of 199 participants recruited from Perm universities (100 men and 99 women), with an age range from 18 to 24. Research hypotheses were tested by means of structural equation modeling. Only the models of low and middle levels of integration fit the data. They evidence that self-actualization and sensation seeking, rather than neuroticism and hostility, yield a mediator function. The first pair of variables is mediators between some subselves of the plural self and psychosemantic evaluations of films with violent scenes. Conversely, neuroticism and hostility did not operate as appropriate mediator variables. A path from plural self to self-actualization and sensation seeking to psychosemantic evaluation of films with violent scenes reveals a significant chain.

[Dorfman L. Ya., Zubakin M. V. **Self-conception, personality traits, and evaluations of cinematic violence.** *Life Sci J* 2014;11(12):477-485] (ISSN:1097-8135). <http://www.lifesciencesite.com>. 94

**Keywords:** self-conception, plural self, self-actualization, sensation seeking, psychosemantic evaluation, violence in films

### Introduction

Findings about violence in mass media have burgeoned in a variety of arenas recently. There has been an outpouring of academic research directed toward comprehension of how violence in mass media can influence spectators. Still, it remains to date a puzzle how to capture the subtle mechanisms of this influence.

Research so far has centered on outer or inner conditions. Concerning the outer conditions, social and parental control, demographic and socio-economic characteristics are highlighted [1; 2]. In particular, researchers report that violent scenes in mass media can induce in spectators arousal, anger, sadness, aversion, defiance, aggressive intentions [3], yet also decreasing empathy, prosocial behavior [4; 5; 6], and depression [7]. In contrast, the inner conditions are essentially less taken into account and much more ambiguous. Meanwhile, researchers argue that emotional states, attitudes, and persuasions are underlying inner indicators of such effects [8]. Besides, data obtained evidence that sensation seeking [9; 10], aggressiveness and hostility [11; 12], internal locus control, and reactive resistance are sensitive to violent scenes [13]. It is intriguing that sensation seeking as a personality trait enables a positive perception of films containing violent scenes, whereas neuroticism contributes to their negative perception [14].

All these efforts notwithstanding, we certainly cannot conclude that the research has exhausted the topic. Besides, there is some lack of convergence in respective results reported in the literature. Thus, additional research is required. In particular, the issue of whether spectators' self-conception is a part of their perception of films with violent scenes is worth noting but is still not sufficiently examined. Either it is not sufficiently clear concerning the conjoint influences of the spectator members' self-conception and personality traits on their evaluation of violent scenes in films. The objective of our study is to examine personality as a mediator between self-conception and evaluations of cinematic violence.

### The problem and hypotheses

As shown above, the perception of violent scenes in mass media links to some personality traits, namely, sensation seeking, aggressiveness, hostility, and neuroticism. Another body of studies reveals that these personality traits link to self-conception. In the framework of the plural self [15], empirical evidence was obtained that some subselves can produce effects on neuroticism [16], aggression, hostility [17], and sensation seeking [18]. In addition, it was found that some self-actualization measures (existentiality, self-acceptance, and capacity for intimate contact) significantly correlate with some subselves [19]. Our pilot study [20] also showed that some measures of

self-actualization relate to the evaluation of films with violent scenes.

Prior results (Zubakin, not published) have evidenced that none of the spectator's subselves correlated directly with the evaluations of films with violent scenes. In contrast, the foregoing personality traits correlated significantly with both some subselves and evaluations of violent scenes in films. The issue is whether subselves can relate to evaluations of films with violence scenes through the above personality traits. Based on the above findings, it was hypothesized that some personality traits (neuroticism, sensation seeking, hostility, and self-actualization) can serve as mediators between the spectator members' plural self and their evaluations of films with violent scenes.

### Research objectives and logic of study

We focused foremost on personality mediator variables as candidates for mediating a link of the plural self to the evaluations of films with violent scenes. Precedence was given to Eysenck's theory of personality [21] and Buss and Durkee's theory of aggression and hostility [22]. Shostrom's personal orientation inventory [23], which operationalized Maslow's theory of self-actualization [24] and Zuckerman's theory of sensation seeking [25] were also taken into account.

We developed an integrative mediational framework to explicate some personality variables as mediators between self-conception (plural) and psychosemantic evaluations of films with violent scenes. Supposedly, they picture a unified system, and the research question arose of how this system's components are integrated. On this ground, we focused on personality traits as mediators. Three levels of integration were indicated, each level with its own specified models. The integration level of these models were labeled low, middle, and high. By doing this, we denote the high-level integration more generative and wider in scope, whereas the middle and low levels of integration become gradually less generative and decrease in scope.

1. Mediator variables extracted from separate personality theories were referred to the *low-level* integration models. Accordingly, four models were tested and four mediator variables were taken into account separately.

2. Two mediator variables of significant fit extracted from the low-level integration models were submitted to the *middle-level* integration models. In total, six models were tested.

3. Three mediator variables of significant fit extracted from the middle-level integration models were submitted to the *high-level* integration models. In total, four models were tested.

Our research objective was to examine and compare significant fit models of the different integration levels.

### Method

#### Participants

Raw data were gathered from 199 participants recruited from Perm State Humanitarian Pedagogical University and Perm State Academy of Arts and Culture (100 men and 99 women). Their age ranged from 18 to 24,  $M = 19.52$ ,  $SD = 1.13$ . The participants received no reward or compensation for participation in the study.

#### Procedure

The study consisted of two parts. In the first part, the film with violent scenes was shown to the participants. In the second part, the participants completed questionnaires. A number of group sessions were conducted. Each of the groups consisted of 10-15 men and women.

#### Stimulus

Two films with violent scenes were used as stimuli. Each of them was a "horror" film rated "R"<sup>1</sup> as defined by the Motion Picture Association of America [26]. The horror films were "The Texas Chainsaw Massacre" (2003, directed by M. Nispel) and "The Texas Chainsaw Massacre: The Beginning" (2006, directed by J. Liebesman). The first film lasted 92 minutes, of which 25.58 % or 27.8 minutes were proper scenes of violence. The second film lasted 92 minutes, of which 26.10 % or 28.7 minutes were proper scenes of violence. Only one of the films was randomly shown to the participants in each group session.

#### Questionnaires

##### Semantic differential

The participants evaluated the film using the verbal semantic differential (SD) of Osgood [27]. The SD is a type of rating scale designed to measure the connotative meaning of cultural objects including films. The SD consists of 25 pairs of polar adjectives. They fall into three scales, that is, "Evaluation" (positive—negative), "Potency" (weak—strong) and "Activity" (low—high). Each adjective pair is rated on a 7-point scale. Each pole has a value from 1 (slightly) to 3 (extremely). The value 0 is neutral. A prior study [28] indicated that the scales of evaluation and potency, and not the scale of activity, correlates with personality variables. Hence, the scales of evaluation and potency were included in this study, while the activity scale was omitted.

<sup>1</sup> "R" – Restricted viewing. People under 17 years may only be admitted if accompanied by a parent or guardian.

*Plural Self Questionnaire*

The plural self questionnaire (PSQ) was used to study subselves of the plural self: authored, embodied, mutated, and related. Authorship or agency is the capacity of the personality to act independently and make its own free choices. Embodiment means that the personality attaches itself to objects. Mutation refers to perspective taking, i.e. taking the role of someone else. Relatedness pertains to a self-in-relation. The PSQ consists of 34 points, including 2 points as lie scales. Each subself scale consists of 8 points. Participants expressed the degree of their agreement with each item on the six-point scale ranging from -3 ("strongly disagree") to 3 ("strongly agree"). The PSQ was successfully tested for reliability, construct and convergent validity [29]. Authored, embodied, and related, but not mutated, subselves correlated with personality traits of our interest. At that, no correlations were found between authored, embodied, and related subselves and the evaluation scores of the films with violent scenes. Thus, these subselves were included in the study but the mutated subself was removed from the further study.

*Eysenck Personality Questionnaire*

The Eysenck personality questionnaire (EPQ-R) [30] was used. The neuroticism scale, but not extraversion and psychoticism, correlated both with the evaluation scores of the films with violent scenes and the plural self. Thus, only the neuroticism scale was included in the further study.

*Buss-Durkee Hostility Inventory*

Although Buss and Durkee (1957) found two factors, namely, aggressiveness (consisting of assault, indirect aggression, irritability, and verbal aggression) and hostility (defined by resentment and suspicion), subsequent factor analyses of items yielded different findings [31]. We took into account data obtained by Dorfman and Shestakova (2010) [32]. They revealed that the aggressiveness scale includes physical aggression, verbal aggression, and negativism. The hostility scale includes guilt, irritability, and resentment. Solely the hostility scale correlated with both the evaluation scores of the films with violent scenes and the plural self. Thus, the hostility scale was submitted for the further study.

*Personal Orientation Inventory*

Existential, self-acceptance and capacity for intimate contact scales were extracted from the Personal Orientation Inventory (POI) [33]. These scales correlated with both the evaluation scores of the films with violent scenes and the plural self. Thus, they were included in the next part of the study.

*Sensation-Seeking Scale*

The Sensation-Seeking Scale (thrill and adventure seeking, experience seeking, disinhibition,

boredom susceptibility) was used to provide an operational measure of the construct optimal level of stimulation [34]. Apart from the boredom susceptibility subscale, the remaining subscales correlated with both the evaluation scores of the film with violence scenes and the plural self. Thus, they were included in the next part of the study.

**Data analysis**

The extreme values on each variable (beyond  $X \pm 2$  SD) were excluded and the missing data were replaced with mean scores. After the outliers were removed each variable had normal distribution (Kolmogorov—Smirnov test, D-max statistic).

Correlation matrices for manifest variables were submitted to structural equation modeling using the SEPATH module in the Statistica software package [35].

We followed the mediation strategy for structural equation modeling suggested by Holmbeck (1997) [36] and supported by Frazier et al (2004) [37]. The mediational models were employed under the condition that the immediate model did not provide a better fit to the data (e.g., Frazier, Tix, & Barron, 2004). The mediational model highlights a chain according to which X (a distal latent exogenous variable) relates to Y and Y (a proximal latent mediator variable) to Z as a latent endogenous variable. By doing this, Y is dependent on X yet independent of Z. Note that the mediation analysis in our study did not examine causal relationships.

A series of models was suggested to test the above personality traits as mediators between the plural self and the evaluation of the film with violent scenes. Subselves (authored, embodied, and related) served exogenous correlated variables, personality traits (neuroticism, hostility, self-actualization and sensation seeking), mediator variables, and the "Evaluation" and "Potency" scores of the film with violent scenes were combined in an endogenous variable. Exogenous and mediator estimated constructs were defined by three indicators. An endogenous variable was defined by two indicators. Each indicator was intended as an estimate of only one construct.

Neuroticism, hostility, self-actualization, and sensation seeking mediators separately made up the low-integration models. These were called A-submodels and consisted of 4 versions, A-M<sub>1</sub>, A-M<sub>2</sub>, A-M<sub>3</sub>, and A-M<sub>4</sub>, respectively.

Variables extracted from two personality theories conjointly were called B-submodels, that is, the middle-integration models. The B-submodels were discriminated on mediators in three subgroups. The first subgroup (B1) consisted of the following three submodels: neuroticism taken together with 1) hostility (B1-M<sub>1</sub>), 2) self-actualization (B1-M<sub>2</sub>), and

3) sensation seeking (B1–M<sub>3</sub>), mediators. The second subgroup (B2) consisted of the following two submodels: 1) hostility taken together with self-actualization (B2–M<sub>4</sub>), and 2) sensation seeking (B2–M<sub>5</sub>) mediators. The third subgroup (B3) included both sensation seeking and self-actualization mediators (B3–M<sub>6</sub>), that is, one B3 submodel. In total, six B-submodels with various mediator associations were tested.

Variables extracted from three personality theories conjointly were called C-submodels, that is, the high-integration models. C-submodels were discriminated on two subgroups of mediators. The first subgroup (C1) consisted of the following three submodels: 1) neuroticism taken together with self-actualization and hostility mediators (C1–M<sub>1</sub>), 2) neuroticism taken together with self-actualization and sensation seeking mediators (C1–M<sub>2</sub>), and 3) neuroticism taken together with hostility and sensation seeking mediators (C1–M<sub>3</sub>). The second subgroup (C2) consisted of hostility taken together with self-actualization and sensation seeking mediators (C2–M<sub>4</sub>). In total, four C-submodels were tested.

Further, most fit submodels were assessed within A-submodels, B-submodels, and C-submodels separately. Unfortunately, within each category it was impossible to compare them strongly because they had the same number of degree of freedom. Then, instead of using the chi-square difference test (see below), we compared them using fit indexes. Next, most fit models extracted from each category were compared. The chi-square difference test was used to compare them [38].

#### *Fit indexes*

For each model the method of discrepancy function estimation used was Maximum Likelihood. The line search method was Cubic Interpolation. Six indexes assessed model fit: chi-square statistic [39], chi-square/df ratio [40], Steiger and Lind's root mean square error of approximation (RMSEA) [41], the goodness-of-fit index (GFI) [42], the adjusted goodness-of-fit index (AGFI) [43], and the comparative fit index (CFI) [44].

## **Results**

### *Low level integration models*

Two submodels represented the best fit to the data as compared the other submodels from the low-integration category. The submodel A–M<sub>3</sub> showed the best fit ( $\chi^2(70) = 89.77, p > .05, \chi^2/df = 1.28, RMSEA = .03, GFI = .94, AGFI = .91, CFI = .98$ ). The submodel A–M<sub>4</sub> also demonstrated a good fit to the data ( $\chi^2(70) = 88.80, p > .05, \chi^2/df = 1.27, RMSEA = .03, GFI = .94, AGFI = .91, CFI = .98$ ). They revealed that the self-actualization and sensation seeking variables are the most acceptable as mediators

between subselves and evaluation of the film with violent scenes. Conversely, the submodels including neuroticism (A–M<sub>1</sub>) and hostility (A–M<sub>2</sub>) as mediators represented poorer fit. The submodel A–M<sub>1</sub> demonstrated the following fit:  $\chi^2(70) = 100.10, p < .01, \chi^2/df = 1.43, RMSEA = .04, GFI = .94, AGFI = .90, CFI = .97$ . The submodel A–M<sub>2</sub> indicated the fit this way:  $\chi^2(70) = 106.15, p < .001, \chi^2/df = 1.52, RMSEA = .04, GFI = .93, AGFI = .90, CFI = .96$ .

### *Middle level integration models*

The submodel B1–M<sub>1</sub> demonstrated poor fit:  $\chi^2(108) = 217.96, p < .001, \chi^2/df = 2.02, RMSEA = .07, GFI = .89, AGFI = .85, CFI = .91$ . Hence, neuroticism taken together with hostility did not serve as good mediator variables.

The submodel B2–M<sub>4</sub> was also not sufficiently acceptable:  $\chi^2(108) = 189.46, p < .001, \chi^2/df = 1.75, RMSEA = .06, GFI = .90, AGFI = .86, CFI = .94$ . Thus, hostility taken together with self-actualization can hardly enter into the submodel.

Other submodels fit the data well. The submodel B1–M<sub>2</sub> was sufficiently acceptable:  $\chi^2(108) = 139.65, p < .05, \chi^2/df = 1.29, RMSEA = .03, GFI = .93, AGFI = .90, CFI = .97$ . This shows that neuroticism taken together with self-actualization can be entered into the model. The submodel B1–M<sub>3</sub> also represented a good fit to the data:  $\chi^2(108) = 148.59, p < .01, \chi^2/df = 1.38, RMSEA = .04, GFI = .92, AGFI = .89, CFI = .96$ . This entails that neuroticism and sensation seeking taken together can be included in the submodel. The submodel B2–M<sub>5</sub> showed a good fit:  $\chi^2(108) = 158.36, p < .001, \chi^2/df = 1.47, RMSEA = .04, GFI = .92, AGFI = .89, CFI = .95$ . That is, hostility and sensation seeking together are within the submodel.

Nevertheless, we assessed submodel B3–M<sub>6</sub> as most fit:  $\chi^2(108) = 128.41, p > .05, \chi^2/df = 1.19, RMSEA = .03, GFI = .93, AGFI = .90, CFI = .98$ . This entails considering self-actualization and sensation seeking combined within the submodel.

### *High level integration models*

The submodel C1–M<sub>1</sub> showed a not sufficiently acceptable fit,  $\chi^2(155) = 304.42, p < .001, \chi^2/df = 1.96, RMSEA = .07, GFI = .87, AGFI = .83, CFI = .90$ . This means that the probability of neuroticism, self-actualization, and hostility taken together within the submodel is not high. The submodel C1–M<sub>2</sub> fit the data well,  $\chi^2(155) = 196.81, p < .01, \chi^2/df = 1.27, RMSEA = .03, GFI = .91, AGFI = .88, CFI = .97$ . This leads to the suggestion that the probability of neuroticism, self-actualization, and sensation seeking taken together within the submodel is higher than random. The submodel C1–M<sub>3</sub> represented a fit still not sufficiently acceptable,  $\chi^2(155) = 282.64, p < .001, \chi^2/df = 1.82, RMSEA = .06, GFI = .88, AGFI = .84, CFI = .90$ . Thus, the



probability of neuroticism, hostility and sensation seeking taken together within the submodel is still not high enough to be significant. Finally, the submodel C2-M<sub>4</sub> demonstrated insufficient fit as well,  $\chi^2$  (155) = 257.89,  $p < .001$ ,  $\chi^2/df = 1.66$ ,  $RMSEA = .05$ ,  $GFI = .89$ ,  $AGFI = .86$ ,  $CFI = .93$ . Thus, hostility, self-actualization and sensation seeking included in the submodel are less probable.

Finally, we took into account the submodel C1-M<sub>2</sub> as the best fit to the data. It shows that neuroticism, self-actualization, and sensation seeking are most fit to the data.

*Comparison of the best fit of A-submodels, B-submodels, and C-submodels*

Fit indexes of the best fit of A-submodels, B-submodels, and C-submodels and their comparison are summarized in Table 1.

**Table 1. Fit indexes of best fit A-submodels, B-submodels, and C-submodels and their comparison**

Submodels	RMSEA	GFI	AGFI	CFI	$\chi^2$	df	$\chi^2/df$	Comparison of models	$\Delta\chi^2$
C1-M <sub>2</sub>	.03	.91	.88	.97	196.81*	155	1.27	-	-
B3-M <sub>6</sub>	.03	.93	.90	.98	128.41	108	1.19	B3-M <sub>6</sub> vs C1-M <sub>2</sub>	68.4
A-M <sub>3</sub>	.03	.94	.91	.98	89.77	70	1.28	A-M <sub>3</sub> vs B3-M <sub>6</sub>	38.64
A-M <sub>4</sub>	.03	.94	.91	.98	88.80	70	1.27	A-M <sub>4</sub> vs B3-M <sub>6</sub>	39.61

Note: \*  $p < .01$

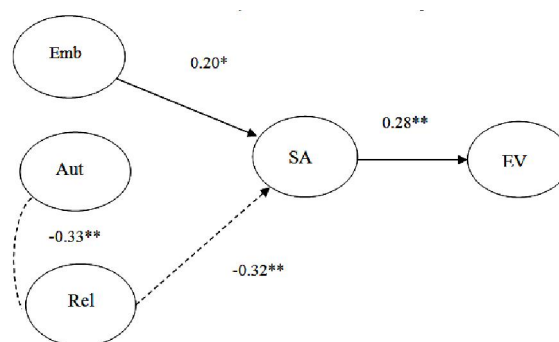
Each of the four submodels fit the data quite well. The submodels B3-M<sub>6</sub> and C1-M<sub>2</sub> did not differ in their fit:  $\Delta\chi^2$  (47,  $N = 199$ ) = 68.4,  $p > .05$ . The submodels A-M<sub>3</sub> and B3-M<sub>6</sub> did not differ in their fit:  $\Delta\chi^2$  (38,  $N = 199$ ) = 38.64,  $p > .05$ . The submodels A-M<sub>4</sub> and B3-M<sub>6</sub> did not differ in their fit:  $\Delta\chi^2$  (38,  $N = 199$ ) = 39.61,  $p > .05$ . None of the foregoing submodels had advantages over the other submodels on the chi-square difference test. Instead, the absolute lowest chi-square was taken into account to compare these submodels. As a result, we have determined the submodels B3-M<sub>6</sub>, A-M<sub>3</sub>, and A-M<sub>4</sub> as the most acceptable.

*Submodel A-M<sub>3</sub>* refers to low-level integration. Parameter estimates revealed that the authored, embodied, and related subself exogenous variables entered the submodel. Each of them was indicated by three manifest variables at  $p < .001$ . The authored and related subself exogenous variables correlated negatively at  $p < .001$ . The self-actualization mediator variable was indicated by three manifest variables at  $p < .001$ . The endogenous evaluation variable of the film with violent scenes was indicated by two manifest variables at  $p < .001$ .

A chain of latent variables was found with paths from the embodied subself to self-actualization (.20,  $p < .01$ ) to evaluation of the film with violent scenes (.28,  $p < .001$ ). Another chain of latent

variables consisted in paths from the related subself to self-actualization (-.32,  $p < .001$ ) to evaluation of the film with violent scenes (.28,  $p < .001$ ). The path diagram is shown in Figure 1.

*Submodel A-M<sub>4</sub>* also refers to low-level integration. Parameter estimates revealed that the authored, embodied, and related subself exogenous variables entered the submodel. Each of them was indicated by three manifest variables at  $p < .001$ . The authored and related subself exogenous variables correlated negatively at  $p < .001$ . The sensation seeking mediator variable was indicated by three manifest variables at  $p < .001$ . The endogenous evaluation variable of the film with violent scenes was indicated by two manifest variables at  $p < .001$ .

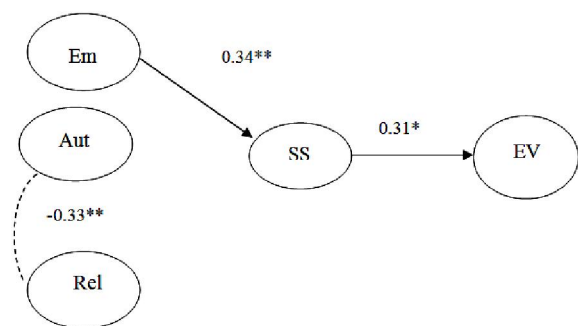


**Figure 1. Path diagram for the submodel A-M<sub>3</sub>**

Note. Aut – authored subself, Emb – embodied subself, Rel – related subself, SA – self-actualization, EV – evaluation of the film with violence scenes. Arrows indicate significant path; full lines denote positive path coefficients, dash lines negative path coefficients; arc indicates a negative correlation between exogenous variables; manifest variables are omitted. \*  $p < .01$ , \*\*  $p < .001$

A chain of latent variables was found with paths from the embodied subself to sensation seeking (.34,  $p < .001$ ) to evaluation of the film with violent scenes (.31,  $p < .01$ ). The path diagram is shown in Figure 2.

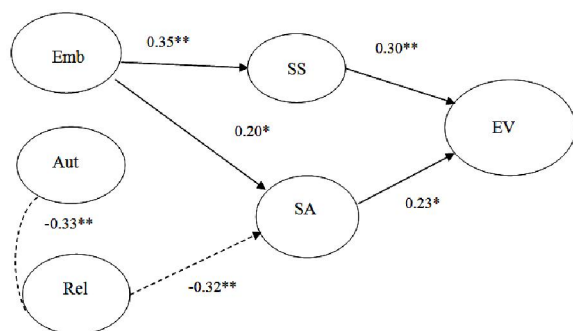
*Submodel B3-M<sub>6</sub>* refers to the middle-level integration. Parameter estimates revealed that the authored, embodied, and related subself exogenous variables entered the submodel. Each of them was indicated by three manifest variables at  $p < .001$ . The authored and related subself exogenous variables correlated negatively at  $p < .001$ . The self-actualization and sensation seeking mediator variables were indicated by three manifest variables on each at  $p < .001$ . The endogenous evaluation variable of the film with violent scenes was indicated by two manifest variables at  $p < .001$ .



**Figure 2. Path diagram for the model A-M<sub>4</sub>**

Note. Aut – authored subself, Emb – embodied subself, Rel – related subself, SS – sensation seeking, EV – evaluation of the film with violence scenes. Arrows indicate significant paths; full lines denote positive path coefficients, dash lines negative path coefficients; arc indicates a negative correlation between exogenous variables; manifest variables are omitted. \*  $p < .01$ , \*\*  $p < .001$

A chain of latent variables consisted in paths from the embodied subself to sensation seeking (.35,  $p < .001$ ) to evaluation of the film with violent scenes (.30,  $p < .001$ ). Besides, a chain of latent variables included paths from the embodied subself to self-actualization (.20,  $p < .01$ ) to evaluation of the film with violent scenes (.23,  $p < .01$ ). In addition, a chain of latent variables consisted in paths from the related subself to self-actualization (-.32,  $p < .001$ ) to evaluation of the film with violence scenes (.23,  $p < .01$ ). The path diagram is shown in Figure 3.



**Figure 3. Path diagram for the model B3-M<sub>6</sub>**

Note. Aut – authored subself, Emb – embodied subself, Rel – related subself, SS – sensation seeking, SA – self-actualization, EV – evaluation of the film with violent scenes. Arrows indicate significant paths; full lines denote positive path coefficients, dash lines negative path coefficients; arc indicates a negative correlation between exogenous variables; manifest variables are omitted. \*  $p < .01$ , \*\*  $p < .001$

## Discussion

Our hypothesis was that self-actualization, sensation seeking, neuroticism, and hostility can serve as mediators between the spectator's plural self and evaluations of films with violent scenes. The data obtained were partly consistent with our suggestion. First, the embodied, related, and indirectly authored subelves served as exogenous variables, not the mutated subself. In turn, self-actualization and sensation seeking yielded a mediator function, rather than neuroticism and hostility. The film with violent scenes endogenous evaluation variable of the film with violent scenes referred to the scales "Evaluation" and "Potency," not to "Activity."

### Latent mediator variables

Let us consider low and middle-level integration models as best fit to the data. In these models, there is reason first to draw attention to the mediators. The Markov model of causal chains is of particular interest in that it is able to describe and synthesize variables in chains across their sequences. A Markov chain is commonly considered as a discrete process of nodes (or variables) with identifiable transitions between them. In a Markov chain, the next state depends only on the current state immediately preceding it and not on the previous sequence of states. This process, called the Markov property, is characterized as "memory-less" [45]. Certainly, we deal with chains that are not causal. Meanwhile we suggest that exogenous variables are distal and mediator variables are proximal, although both exogenous and mediator variables produce investment in the endogenous variable. Therefore we will analyze the mediator variables first and the exogenous variables second.

The foregoing mediational submodels are supported since there was no significant correlation between the subelves and the psychosemantic evaluation of the film with violent scenes.

### Self-actualization.

Its manifest variables were the scales for existentiality, self-acceptance and capacity for intimate contact [46]. The existentiality scale measures how flexible a person is to new ideas. Plausibly, people with a higher existentiality score would be resistant to social stereotypes. Then they can perceive the scenes of violence as a new experience.

Self-acceptance measures affirmation of self in spite of its weaknesses or deficiencies. People often view themselves ambivalently, including both positive and negative self-regard. If people regard their self negatively, thus painfully internalizing feelings of rejection, they can also extrapolate their experience on scenes of violence.

Capacity for intimate contact denotes developing meaningful intimate relationships with

others, without undue emphasis on obligations. A higher score on this scale would indicate the ability to establish meaningful, close, and warm (genuine, spontaneous, honest) interpersonal relationships with other people. But positive evaluation of scenes of violence would mean that intimate contacts do not exclude violence, social stereotypes notwithstanding. Sensation seeking.

Zuckerman's theory [47] argues that sensation seeking is a psychophysiological mechanism of recovery of an optimal level of arousal. Actually, violent scenes in films can be treated as stimuli for high sensation seekers. In non-stimulated states, they may be understood as chronically under-aroused. Therefore, they require more stimulation to reach an optimal level of arousal. Hebb (1955) points out that the valence of emotions rely on the level of arousal [48]. Unpleasant emotions like boredom arise at the low end below the optimal level of arousal, and anxiety at the high end beyond the optimal level of arousal. Conversely, positive emotions are localized at or close to the optimal level of arousal. Thus, people can experience different emotions depending on the level of arousal. Our data allow us to suppose that the high sensation seekers are dominant among the spectators. They would prefer to experience positive emotions in response to films with violent scenes.

Are self-actualization and sensation seeking related? We suppose that a need for novelty operates as their common basis [49; 50]. Our results (Zubakin, not published) yielded evidence that self-acceptance (self-actualization) and disinhibition (sensation seeking) scores correlate positively ( $r(197) = .14, p < .05$ ). This finding indirectly supports our assumption of their common ground.

#### **Latent exogenous variables**

Recall that embodied and related subelves were included in our models as exogenous variables. We assume that embodiment is a common and immediate ground of both self-actualization and sensation seeking. Actually, embodiment guides novelty and links to creative thinking. A disposition toward novelty is advantageous for creativity as well [51; 52].

In addition, we found a negative path coefficient from the related subself to self-actualization. This is not surprising, since the related subself indicates a propensity to relate to others, being able to attain and maintain relationships. Conversely, self-actualization taps resistance in response to pressing outer conditions. Tentatively, the related subself is designed to inhibit rather than facilitate self-actualization.

#### **Conclusion**

The present paper develops a model of self-conception, personality traits, and evaluation of films

with violent scenes. Some personality variables as mediators between the plural self and the psychosemantic evaluation of films with violent scenes are examined. Three levels of their tentative integration are specified, namely, low, middle, and high. The low and middle-level integration models only fit the data. The data obtained indicates that self-actualization and sensation seeking rather than neuroticism and hostility variables serve as mediators between the embodied and related subelves and the psychosemantic evaluation of films with violent scenes.

Our findings provide the basis for the claim that a propensity for embodiment is worth noting as an appropriate and underlying candidate for unifying parts of the chains. We propose the general notion of embodiment as the self's footprints extended to other people. Then the embodiment would embrace the embodied subself, self-actualization and sensation seeking, and the perception of violent scenes displayed in films in a unifying chain.

In general, we suppose that the evaluation of films with violent scenes is a function both of the subelves and the above-mentioned personality traits of the spectators. Like the outer factors, the foregoing intrinsic factors would also be taken into consideration.

#### **Corresponding Author:**

Dr. Dorfman L. Ya.

Perm State Academy of Art and Culture, Gazeta "Zvezda" str., 18, Perm, 614000, Russia

E-mail: [dorfman07@yandex.ru](mailto:dorfman07@yandex.ru)

#### **References**

1. Krahe, B. (2013). Media violence and aggression. In B. Krahe, *The social psychology of aggression* (pp. 119–152). New York, Psychology Press.
2. Gentile, D. A., & Bushman, B. J. (2012). Reassessing media violence effects using a risk and resilience approach to understanding aggression. *Psychology of Popular Media Culture*, 1(3), 138–151.
3. Unz, D., Schwab, F., & Winterhoff-Spurk, P. (2008). TV news – the daily horror? Emotional effects of violent television news. *Journal of Media Psychology*, 20(4), 141–155.
4. Anderson, C. A., Bushman, B. J., Ithori, N., Rothstein, H. R., Sakamoto, A., Saleem, M., Shibuya, A., & Swing, E. L. (2010). Violent video game effects on aggression, empathy, and prosocial behavior in Eastern and Western countries: A meta-analytic review. *Psychological Bulletin*, 136(2), 151–173.

5. Krahe, B., Möller, I., Kirwil, L., Huesmann, L.R., Felber, J., & Berger, A. (2011). Desensitization to media violence: Links with habitual media violence exposure, aggressive cognitions, and aggressive behavior. *Journal of Personality and Social Psychology*, 100(4), 630–646.
6. Ramos, R. A., Ferguson, C. J., Frailing, K., & Romero-Ramirez, M. (2013). Comfortably numb or just yet another movie? Media violence exposure does not reduce viewer empathy for victims of real violence among primarily Hispanic viewers. *Psychology of Popular Media Culture*, 2(1), 2–10.
7. Ferguson, C. J., & Rueda, S. M. (2010). The hitman study. Violent video game exposure effects on aggressive behavior, hostile feelings, and depression. *European Psychologist*, 15(2), 99–108.
8. Harris, R. J. (2013). Violence: watching all that mayhem really matters. In R. J. Harris, & F. Sanborn, *A cognitive psychology of mass communication* (pp. 267–299). New York, Taylor & Francis.
9. Banerjee, S. C., Greene, K., Krcmar M., Bagdasarov, Z., & Ruginyte, D. (2008). The role of gender and sensation seeking in film choice. *Journal of Media Psychology*, 20(3), 97–105.
10. Banerjee, S. C., Greene, K., Krcmar, M., & Bagdasarov, Z. (2009). Who watches verbal aggressive show? An examination of personality and other individual difference factors in predicting viewership. *Journal of Media Psychology*, 21(1), 1–14.
11. Bushman, B. J. (1995). Moderating role of trait aggressiveness in the effects of violent media on aggression. *Journal of Personality and Social Psychology*, 69(5), 950–960.
12. Bushman, B. J., & Geen, R. G. (1990). Role of cognitive-emotional mediators and individual differences in the effects of media violence on aggression. *Journal of Personality and Social Psychology*, 58(1), 156–163.
13. Bushman, B. J., & Stack, A. D. (1996). Forbidden fruit versus Tainted fruit: Effects of warning labels on attraction to television violence. *Journal of Experimental Psychology: Applied*, 2(3), 207–226.
14. Dorfman, L. Y., & Zubakin, M. V. (2013). The personal peculiarities of perception movies with scenes of violence. *Journal of South Ural State University, Chelyabinsk*, 6(2), 13–24.
15. Dorfman, L. Y. (2004). Self-concept: differentiation and integration. In L. Dorfman (Ed.), *Integral individuality, self-concept, and personality* (pp. 96–123). Moscow: Smysl.
16. Dorfman, L. Y., Bykov, A. N., & Goldberg, I. M. (2000). A multidimensional model of self and personality: Empirical relations. *Journal "Pashi"*, 1, 110–123.
17. Shestakova, E. G. (2010). Creativity and aggressiveness. In L. Dorfman, & D. Ushakov (Eds.), *Psychology of creativity: The Legacy of Y. A. Ponomarev and modern studies* (pp. 111–115). Perm: Perm State Institute of Arts and Culture; Moscow: Institute of Psychology, Russian Academy of Sciences.
18. Zubakin, M. V. (2010). Creativity and sensation seeking. In L. Dorfman, & D. Ushakov (Eds.), *Psychology of creativity: The Legacy of Y. A. Ponomarev and modern studies* (pp.103–106). Perm: Perm State Institute of Arts and Culture; Moscow: Institute of Psychology, Russian Academy of Sciences.
19. Dorfman, L. Y., & Soboleva, N. V. (2000). Plural self and self-actualization. In S. A. Minjurova (Ed.), *Applied psychology* (pp. 22–27). Ekaterinburg: Ural State Pedagogical University.
20. Zubakin, M. V. (2013). Personality traits and perception of movie with violence scenes. *Journal of Actual problems of humanitarian and natural science*, 12(59), 2, 358–362.
21. Eysenck, H. J. (1998). Theories of personality organization. In C. L. Cooper, & L. A. Pervin (Eds.), *Personality: Critical concepts* (pp. 248–259). New York: NY.
22. Buss, A. H., & Durkee, A. (1957). An inventory for assessing different kinds of hostility. *Journal of Consulting Psychology*, 21, 343–348.
23. Shostrom, E. L. (1963). *Personal orientation inventory*. San Diego, CA: EdITS.
24. Maslow, A. (1987). *Motivation and personality*. New York, Longman.
25. Zuckerman, M., Eysenck, S., & Eysenck, H. J. (1978). Sensation seeking in England and America: Cross-cultural, age, and sex comparisons. *Journal of Consulting and Clinical Psychology*, 46(1), 139–149.
26. Bushman, B. J., & Cantor, J. (2003). Media ratings for violence and sex: Implications for policymakers and parents. *American Psychologist*, 58(2), 130–141.
27. Osgood, C. E., Suci, G., & Tannenbaum, P. (1957). *The measurement of meaning*. Urbana, IL: University of Illinois Press.
28. Zubakin, M. V. (2013). Personality traits and perception of movie with violence scenes. *Journal of Actual problems of humanitarian and natural science*, 12(59), 2, 358–362.
29. Dorfman, L. Y. (2008). Psychometric characteristics of the Perm plural self



- questionnaire. In N. A. Baturin (Ed.), *Modern psychodiagnostics in a changing Russia* (pp. 48–50). Chelyabinsk: The South Ural State University.
30. Eysenck, H. J., & Eysenck, S. B. G. (1994). *Manual of the Eysenck personality questionnaire (EPQ-R Adult) comprising the EPQ-Revised (EPQ-R) and EPQ-R Short Scale*. San Diego, Ca: EdITS.
  31. Buss, A. H., & Durkee, A. (1957). An inventory for assessing different kinds of hostility. *Journal of Consulting Psychology*, 21, 343–348.
  32. Dorfman, L. Y., & Shestakova, E. G. (2010). Negative and positive aspects of aggressiveness. Report on the conference “125 years of the Moscow psychological society”. Moscow.
  33. Shostrom, E. L. (1963). *Personal orientation inventory*. San Diego, CA: EdITS.
  34. Zuckerman, M., Eysenck, S., & Eysenck, H. J. (1978). Sensation seeking in England and America: Cross-cultural, age, and sex comparisons. *Journal of Consulting and Clinical Psychology*, 46(1), 139–149.
  35. Steiger, J. (1995). SEPATH structural equation modeling, *Statistica*, 3: 3539–3689.
  36. Holmbeck, G. N. (1997). Toward terminological, conceptual, and statistical clarity in the study of mediators and moderators: Examples from the child-clinical and pediatric psychology literatures. *Journal of Consulting and Clinical Psychology*, 65(4), 599–610.
  37. Frazier, P. A., Tix, A. P., & Barron, K. E. (2004). Testing moderator and mediator effects in counseling psychology research. *Journal of Counseling Psychology*, 51(1), 115–134.
  38. Bentler, P. M. (1995). *EQS structural equations program manual*. Encino, CA, Multivariate Software.
  39. Bryant, F. B., & Yarnold, P. R. (1998). Principal-components analysis and exploratory and confirmatory factor analysis. In L. G. Grimm, & P. R. Yarnold (Eds.), *Reading and understanding multivariate statistics* (pp. 99–136). Washington, D.C.: American Psychological Association.
  40. Byrne, B. (1989). *A primer of LISREL: Basic applications and programming for confirmatory factor analytic models*. New York, Springer-Verlag.
  41. Steiger, J. H. (1990). Structural model evaluation and modification: An interval estimation approach. *Multivariate Behavioral Research*, 25, 173–180.
  42. Jöreskog, K. G., & Sörbom, D. (1989). *LISREL 7 user's reference guide*. Chicago: SPSS Publications.
  43. Schermelleh-Engel, K., Moosbrugger, H., & Müller, H. (2003). Evaluating the fit of structural equation models: Tests of significance and descriptive goodness-of-fit measures. *Methods of Psychological Research*, 8, 23–74.
  44. Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, 107, 238–246.
  45. Hayes, B. (2013). First links in the Markov chain. *American Scientist*, 101, 92–97.
  46. Maslow, A. (1987). *Motivation and personality*. New York, Longman.
  47. Zuckerman, M. (1979). *Sensation seeking: beyond the optimal level of arousal*. Hillsdale, NJ: Erlbaum.
  48. Hebb, D. P. (1955). Drives and the CNS (conceptual nervous system). *Psychological Review*, 62, 243–254.
  49. Cloninger, C. R. (2003). Completing the psychobiological architecture of human personality development: Temperament, character, and coherence. In U. M. Staudinger, & U. E. R. Lindenberger (Eds.), *Understanding human development: Dialogues with lifespan psychology* (pp. 159–182). Boston: Kluwer Academic Publishers.
  50. Vartanian, O., Martindale, C., & Kingery, L. (2002). Creativity and disinhibition. In Eu. Malianov, N. Zakharov, E. Berezina, L. Dorfman, V. Petrov, & C. Martindale (Eds.), *Personality, creativity, and art* (pp. 204–215). Perm: Perm State Institute of Art and Culture, Prikamsky Social Institute.
  51. Dorfman, L. Y., & Zubakin, M. V. (2010). Creativity and sensation seeking. In Dorfman, L. & D. Ushakov (Eds.), *Psychology of creativity: The Legacy of Y. A. Ponomarev and modern studies* (pp. 94–99). Perm: Perm State Institute of Art and Culture; Moscow: Institute of Psychology, Russian Academy of Sciences.
  52. Dorfman, L. Y. (2007). A metaindividual and plural models of creativity. In V. M. Petrov, & A. V. Haruto (Eds.), *Information, time, and creativity* (pp. 73–79). Moscow: State Institute of Art, Moscow State Conservatory named P. I. Tchaikovsky.

8/16/2014