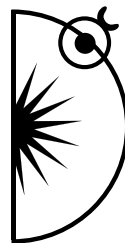


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## The Conformist Attitudes Scale (SPK-II). Latent Structure Analysis Using the Bi-Factor Model

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### Abstract

The aim of this article is to present the evaluation of psychometric properties of an original tool for measuring the propensity to adopt conformist attitudes in adolescents - the Conformist Attitudes Scale (SPK-II).

The objective was achieved based on the results of exploratory (EFA) and confirmatory (CFA) factor analysis using a bi-factor model. Analyses were performed on a polychoric correlation matrix using the WLSMV estimator. The Geomin oblique rotation was used for the EFA.

Data for the validation study were collected in Poland in 2012 and 2020 from 256 and 245 students aged 16-19, respectively.

Of the solutions tested, the bi-factor model proved to be the best fit to the data (RMSEA = 0.052; CFI = 0.964; TLI = 0.953). Based on the Cronbach's alpha coefficient, coefficients omega ( $\omega$ ), and ECV, the scale was found to have high reliability. At the same time, the stability of the scale's latent structure, its dimensionality and reliability were positively verified by comparing the estimates for the data from 2012 and 2020.

The analyses conducted allowed the researchers to assume that the SPK-II latent factor structure model consists of a general factor and three subfactors. The subfactors correspond to subscales which measure specified attributes of a general propensity to adopt conformist attitudes: lack of self-confidence, submissiveness to others and passivity in expressing one's own views.

The SPK-II fills a gap consisting in the absence of standardized research tools whose diagnostic spectrum is concerned with measuring the general propensity to adopt conformist attitudes in adolescents, taking into account attributes around which the conformity is focused. Its application enables studying conformity as an important adaptation mechanism in adolescence and predicting individual behaviour in various social situations related to participation in peer groups.

**Keywords:** conformity, adolescence, psychometric properties, latent structure, bi-factor model.

## Introduction

Well-established in the social sciences and often empirically verified, the thesis on new quality of generational change has acquired particular meaning today. The traits commonly found in the young generation that confirm the hypothesis of difficulties experienced in the process of conscious self-creation deserve special attention at present. The cause of these difficulties, as indicated by psychologists and pedagogues (educators), is a sense of a lack of support among young people in the process of self-creation, while experiencing frustration with this gives rise to many developmental risks. This prompts the young generation to seek support in peer reference groups (Urban, 2012). Thus, the peer group becomes the most important socialization agenda for the young generation. However, the group often exerts pressure that results in conformity, leading to participation and identification by aligning individual behaviour with the group's norms (Sanaria, 2004; Moqrin, 2016).

The above background raises new methodological challenges for study of the mechanisms of identity formation in adolescence and self-creation in the context of a group. In line with this, the authors of the present article put forward a thesis that conformity is an important adaptive mechanism in adolescence that affects relational and adjustment processes in the peer group (Michel & Opozda-Suder, 2019).

In attempting to justify this thesis, it is necessary to refer to similar definitional elements of conformity in different theoretical concepts. Their common denominator becomes the assumption that the consequence of conformity

is always a change in behaviour to fit in with others (Asch, 1956; Cialdini & Goldstein, 2004). In addition, conformity commonly refers to behavioural and attitude change toward the focus areas of group pressure on the individual or what the individual imagines the group expects of them (Sanaria, 2004). As a result, the propensity to adopt conformist attitudes is associated with: submissiveness; unreflective use of established patterns of behaviour; readiness to submit to anyone who appears to be an authority figure; willingness to adjust to the expectations of others; following the voice of the majority; and prioritizing group-imposed norms over one's own (Cialdini & Trost, 1998; Tyszkiewicz, 1998; Cialdini & Goldstein, 2004).

Viewed from this perspective, conformity is an individual cost associated with membership in a reference group (Santor et al., 2000; Coultas & van Leeuwen, 2015), a specific mechanism that reduces behavioural variability within a given (peer) group and potentially increases intergroup heterogeneity (Henrich & Boyd, 1998; Whiten et al., 2005; Efferson et al., 2008; Eriksson & Coultas, 2009; Haun & Tomasello, 2011). Thus, individuals lacking the trait of conformity may have difficulty both entering into and identifying with the group, and thinking of themselves in terms of their belonging (Sanaria, 2004). Therefore, conformity is of crucial importance for development in adolescence, all the more so when reference is made to the specificity of the developmental tasks of this phase of life. Its primary task is the process of separation-individuation (Kroger, 2004). This is accomplished, on the one hand, by *increasing the importance of peer relationships* (Fulgini & Eccles, 1993; Meeus et al., 2005) and, on the other hand, by *gaining and securing a position within the group* (Zwaan et al., 2013). The related struggle for position in the sociometric structure of the group is an important factor that activates specified personality structures related to the motivational-emotional sphere. This sphere determines the tendency to adopt borrowed ways of thinking and acting, and thus the propensity to make one's attitudes increasingly conformist. This corresponds closely to the way conformity is framed as an adaptive mechanism that blocks the reflective and individual self-creation of adolescents, who often reproduce patterns imposed by the group. They are driven by affiliative needs and fear of peer rejection (Lönnqvist et al., 2006; Kosten et al., 2013).

The presented outline of the meaning of conformity in adolescence was the starting point for the construction of the original tool. The development of a scale to measure the general propensity to adopt conformist attitudes by adolescents will enable verification of the thesis put forward by the authors. It will also contribute to filling the gap resulting from the lack of such a standard-

ized tool, both in Poland and abroad. Accordingly, the purpose of this article is to present an assessment of the psychometric properties of the Conformity Attitudes Scale (SPK-II), taking into account the analysis of the latent factor structure.

## **Theoretical background of the SPK**

The established definitions of conformity in the literature characterize it from different perspectives. A detailed analysis of these showcases three levels of research and interpretation of this phenomenon.

According to the assumptions of the first level – which refers to the observations of aggregates of a particular community – conformity is a kind of uniformity of behaviour among members of a given group (Mika, 1972). The second interpretive category reduces the concept of conformity to the level of an individual's outward behaviour that aligns with certain standards and norms of the group. A norm is understood here as a verbal description of the behaviour that many members believe they should adapt their actual behaviour to (Tyszkiewicz, 1998). At the third level, conformity is considered to be part of the basic structure of an individual's personality, subsumed within two distinct dimensions - the conscious and the unconscious. The level of consciousness is related to the definition of conformity as a relatively constant, conscious striving to manifest attitudes and behaviours that an individual believes are consistent with the expectations of the reference group (Paszkiwicz-Sokołowska, 1972). Whereas, in the unconscious dimension conformity is understood as a state of mind - sometimes only a temporary one, triggered by specific social pressure – built into the structure of the personality. It is expressed in the reduction of the ability to reason as a result of the individual's dependence on an authority figure with the power to reward and punish. Therefore, conformity determines a specific relationship between the individual and the authority (person or group) (Kiesler, 1969; Tyszkiewicz, 1998; Sanaria, 2004).

On the basis of the discussed definitions of conformity and in accordance with the perspective adopted by the authors, it was assumed that the most adequate theoretical concept of conformity for the construction of the SPK is the third of the presented positions. It concerns conformity seen as an element of personality structure associated with the adoption of an attitude of subordination and similarity in ways of thinking and behaviour to those generally accepted in the reference group (Bernacka, 2005). This corresponds with the view, emphasized in the literature, that an individual's striving for adaptation and con-

formity most often stems from personality conditions, appropriately regulated by social pressure, with the help of norms, social customs, or values (Bernacka, 2005; Popek, 2008).

### **Construction stages of the SPK**

The Conformist Attitudes Scale (SPK) was created as a result of a sequence of activities conducted in accordance with the tenets of the Classical Test Theory. Initial conceptual work included the development of a starting pool of statements representing specified attributes of conformity. This step was preceded by a detailed literature review to identify empirical-definitional indicators of conformity.

Finally, based on the components of conformist activity of personality adopted by Popek (2008) in the *Creative Behaviour Questionnaire* (KANH), the concept of conformity was operationalized. Conformity was defined by traits such as dependence, passivity, submissiveness, timidity, inhibition, willingness to subordinate, poor resilience and perseverance, low self-esteem, and preferring group-imposed norms over one's own. The traits were made more detailed in the prepared questionnaire items, i.e. 49 starting statements. These took the form of affirmative sentences, to which the subject responded by selecting an answer on a 5-point scale.

The procedure that concluded the formal stage of questionnaire construction was to assess the scale's content validity. It involved determining the level to which individual questions appropriately represent the universe of behaviours that are taken as indicators of the trait being measured (Hornowska, 2005). The prepared items were reviewed by 5 expert judges. Based on this, the 10 lowest-scoring questions were removed from the pool of 49. An estimate of the level of convergence of these ratings was also made using the Kendall's Coefficient of Concordance (W). The resulting Kendall's W for the 39 questions ranged from 0.437 to 0.485.

The version of the SPK prepared in accordance with the procedure described above, named the SPK-I, underwent preliminary assessment of psychometric properties (construct validity based on the EFA and reliability based on the Cronbach's alpha coefficient)<sup>1</sup>. It resulted in the elimination of 15 items that

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<sup>1</sup> A detailed description of the results obtained for the SPK-I was omitted from this paper due to text volume constraints and the desire to capture only those estimates that had an important impact on the development of the SPK-II.

decreased the validity or reliability of the scale in question. At the same time, the values of the indices of model fit to the data obtained at this stage proved to be, although acceptable, not fully satisfactory. This contributed to further work on the SPK. Consequently, the analyses presented in this paper refer to the assessment of the psychometric properties of the next version of the SPK, called the SPK-II, which consisted of 24 items. In the presentation of the results (tables and figures) the initial question numbering from the SPK-I has been retained<sup>2</sup>.

## Research sample and study design

Data for the essential analyses in the validation study were obtained in 2012 as part of a promoter project funded from the budget of the Ministry of Science and Higher Education for science for the years 2010-2013; No. N N106 052539. Complete observations from 256 Polish students were used, which is a sufficient sample size to perform the assumed statistical procedures (MacCallum et al., 1999). The students were 16-19-year-old adolescents from randomly selected public high schools in the *Małopolskie* and *Podkarpackie* Provinces. The study was conducted with the highest ethical standards. An auditorium questionnaire in traditional paper-and-pencil approach was used.

The procedure for evaluating the psychometric properties of the SPK-II presented in the article was conducted in 2020. Additionally, in the same year, data were collected from 245 Polish students aged 16-19, using snowball sampling with a *Computer Assisted Web Interview* (CAWI). Based on these, the stability of the scale's latent structure was verified taking into account its dimensionality and reliability.

## Statistical procedure

The essential validation analyses were performed in two stages. First, the *Exploratory Factor Analysis* (EFA) was conducted to extract the structure of the tool. In the next step, the *Confirmatory Factor Analysis* (CFA) was applied to verify the tentatively obtained structure. As part of the CFA, a bi-factor model was tested. Its use involves testing the assumption that there are orthogonal factors in the SPK-II latent structure, one of which is the general factor and the others are subfactors (specific factors). Thus, in conducting the bi-factor analysis, it was

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<sup>2</sup> An update of the question numbering for the SPK-II enabling identification of their content was included under the questionnaire enclosed with the article.

assumed that the general factor - the primary construct measured by the SPK-II – and no more than one subfactor must load on each question.

Given that the tool used a five-point response scale, both the EFA and CFA were conducted using a polychoric correlation matrix, and models were estimated using the WLSMV (*Weighted Least Squares Means and Variance Adjusted*) method. Additionally, the EFA was performed using the *Geomin* oblique rotation and the *Exploratory Graph Analysis* (EGA) as the most effective method to extract factors (Golino & Epskamp, 2017).

The fit of the EFA and CFA models was evaluated using three indices: RMSEA (*Root Mean Square Error of Approximation*), CFI (*Comparative Fit Index*) and TLI (*Tucker-Lewis Index*). In order to compare the obtained results, it was assumed that the better fit to the data would be the model for which the RMSEA reaches a lower value and the CFI and TLI reach higher values, with the value of RMSEA < 0.08, CFI and TLI > 0.90 (Hair et al., 2014).

In addition, for the EFA, the following criteria were considered together when evaluating particular factor solutions: [1] the factors created had to be interpretable based on the content of the items that compose them; [2] only items with a loading value of at least 0.40 were included in the model; [3] the factors extracted had to consist of at least three items (the three-indicator rule); [4] the model did not include biased items cross-loading on many factors, and any allowed cross-loadings had to differ by more than 0.20.

The reliability of the SPK-II was determined by the Cronbach's alpha coefficient, omega coefficients ( $\omega$ ) and ECV (*Explained Common Variance*) coefficient calculated using the parameters estimated for the finally adopted model.

The modelling was performed using Mplus 8.3 software (Muthén & Muthén, 2019), RStudio 1.2.5. with the application of the lavaan package (Rosseel, 2012) and Bifactor Indices Calculator (Dueber, 2017).

## **Analysis of the SPK-II factor structure**

The KMO (*Kaiser-Meyer-Olkin*) variable sampling adequacy statistic and the *Bartlett's test* of sphericity of the correlation matrix were used to assess the suitability of the correlation matrix for conducting the factor analysis. The KMO coefficient = 0.859 as well as Bartlett's test results ( $\chi^2(276) = 1807.727$ ,  $p < 0.001$ ) proved that the obtained data set is suitable for exploratory factor analysis.

*Exploratory Factor Analysis*

The analyses indicated that based on the Kaiser's eigenvalue criterion and the percentage of variance explained by factors, a four-factor model should be considered. This model explains a total of 48.35% of the variance contained in the 24 questions, with each additional factor explaining no more than 5% of the variance of all questions. Based on the analysis of the *Cattell's scree plot*, the four-factor solution also appears to be optimal. Slightly different results were produced by the EGA, indicating that the selection of three factors is the best solution (Figure 1).

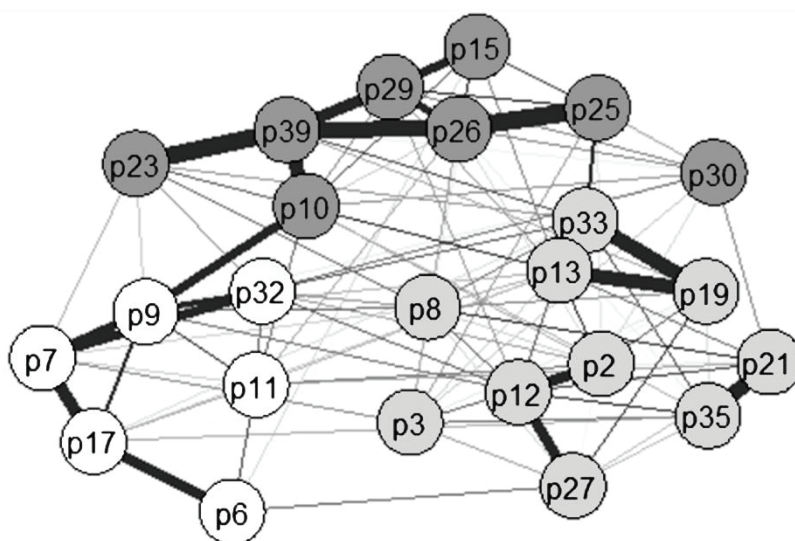


Figure 1. Exploratory Graph Analysis (EGA).

Source: Authors' research.

Finally, guided by the results obtained, the decision was made to test both a three-factor and a four-factor solution in the EFA.

The fit measures obtained indicate that both the three-factor model and the four-factor model fit the data well (Table 1). The first solution has weaker parameters (RMSEA = 0.050; CFI = 0.956; TLI = 0.941) than the second one (RMSEA = 0.038; CFI = 0.977; TLI = 0.966).



Table 1. Measures of models fit to the data in the EFA.

MODEL	Chi-square test of model fit			RMSEA [95% PU]	CFI	TLI
	$\chi^2$	df	p			
<b>3-factor</b>	339.560	207	0.000	0.050 [0.040-0.059]	0.956	0.941
<b>4-factor</b>	255.208	186	0.000	0.038 [0.026-0.049]	0.977	0.966

Source: Authors' research.

However, a detailed analysis of the item loading values under both solutions indicated that for the four-factor model, all items belonging to the second factor have a loading value lower than 0.40 or a cross-loading issue (Table 2). Accordingly, the second factor is uninterpretable, making it necessary to reject the four-factor solution. Consequently, the three-factor model better reflects the latent structure of the SPK-II.

Table 2. Factor loadings in the EFA for the three- and four-factor solution.

ITEM	3-FACTOR SOLUTION			4-FACTOR SOLUTION			
	1	2	3	1	2	3	4
P10	<b>0.555</b>	0.089	0.309	<b>0.552</b>	0.195	0.127	0.232
P23	0.330	0.130	0.264	0.457	0.588	0.026	-0.003
P39	<b>0.735</b>	0.002	0.146	<b>0.818</b>	0.338	-0.029	-0.021
P15	<b>0.640</b>	-0.049	0.000	<b>0.562</b>	0.177	-0.058	0.096
P25	<b>0.662</b>	-0.020	0.002	<b>0.601</b>	-0.115	0.068	0.070
P29	<b>0.873</b>	-0.200	-0.020	<b>0.863</b>	0.033	-0.139	-0.036
P26	0.840	-0.126	0.016	<b>0.783</b>	-0.114	-0.022	0.081
P33	0.351	0.325	0.070	0.353	0.200	0.320	-0.013
P30	0.379	0.171	0.045	0.331	-0.018	0.224	0.067
P19	0.244	<b>0.529</b>	-0.058	0.215	0.111	<b>0.527</b>	-0.095
P2	0.135	<b>0.513</b>	0.096	0.036	-0.078	<b>0.583</b>	0.169
P8	0.002	<b>0.518</b>	0.180	0.023	0.330	0.478	0.035
P13	0.315	0.408	0.135	0.226	-0.050	<b>0.487</b>	0.187
P21	0.070	<b>0.564</b>	-0.009	-0.028	-0.084	<b>0.621</b>	0.051
P12	-0.157	<b>0.829</b>	0.027	-0.234	0.034	<b>0.836</b>	0.041
P27	0.000	<b>0.711</b>	-0.369	-0.026	0.055	<b>0.672</b>	-0.392
P35	0.160	<b>0.514</b>	-0.053	0.073	-0.088	<b>0.567</b>	0.009

Table 2. Factor loadings in the EFA for the three- and four-factor solution.

ITEM	3-FACTOR SOLUTION			4-FACTOR SOLUTION			
	1	2	3	1	2	3	4
P3	0.344	0.353	-0.361	0.240	-0.258	0.423	-0.235
P7	-0.171	0.001	<b>0.773</b>	-0.107	0.413	-0.026	0.598
P9	0.076	0.201	<b>0.604</b>	0.088	0.297	0.214	<b>0.485</b>
P32	-0.016	0.327	<b>0.462</b>	0.007	0.337	0.306	0.326
P11	0.212	0.003	<b>0.506</b>	0.155	0.019	0.088	<b>0.535</b>
P17	-0.015	0.003	<b>0.612</b>	-0.073	0.041	0.077	<b>0.643</b>
P6	0.144	-0.362	0.452	0.081	-0.162	-0.262	<b>0.566</b>

Source: Authors' research.

Analysis of the resulting factor loadings of the three-factor solution indicated that 6 items were cross-loaded or had a value  $< 0.40$ . After removing them, the remaining items (18 statements) strongly represent the extracted factors, with load values ranging from 0.52 to 0.84 (Table 2).

### *Confirmatory Factor Analysis*

In order to verify the scale structure obtained from the EFA results, the CFA was applied to 18 items. A one-factor solution was used as the comparison model. A three-factor model was tested based on the EFA results. Consistent with the assumption underlying the construction of the SPK that the general propensity to adopt conformist attitudes (the general factor) is gauged by measuring its attributes (subfactors), the bi-factor model was also tested.

The fit indices of the tested solutions clearly indicate that the bi-factor model is the best fit to the data. This is confirmed by the lowest value of RMSEA = 0.052 and the highest values of CFI = 0.964 and TLI = 0.953. Equally good estimates for the bi-factor model were obtained using data collected in 2020. The results for the analysed solutions are shown in Table 3 and Figure 2.

Table 3. Measures of model fit to the data in the CFA.

MODEL	Chi-square test of model fit			RMSEA [95% PU]	CFI	TLI
	$\chi^2$	df	p			
<b>1-factor</b>	660.322	135	0.000	0.123 [0.114-0.133]	0.763	0.731
<b>3-factor</b>	323.365	132	0.000	0.075 [0.065-0.086]	0.914	0.900

Table 3. Measures of model fit to the data in the CFA.

MODEL	Chi-square test of model fit			RMSEA [95% PU]	CFI	TLI
	$\chi^2$	df	p			
bi-factor <sub>2012</sub>	196.624	117	0.000	0.052 [0.039-0.064]	0.964	0.953
bi-factor <sub>2020</sub>	222.069	117	0.000	0.061 [0.048-0.073]	0.973	0.964

Source: Authors' research.

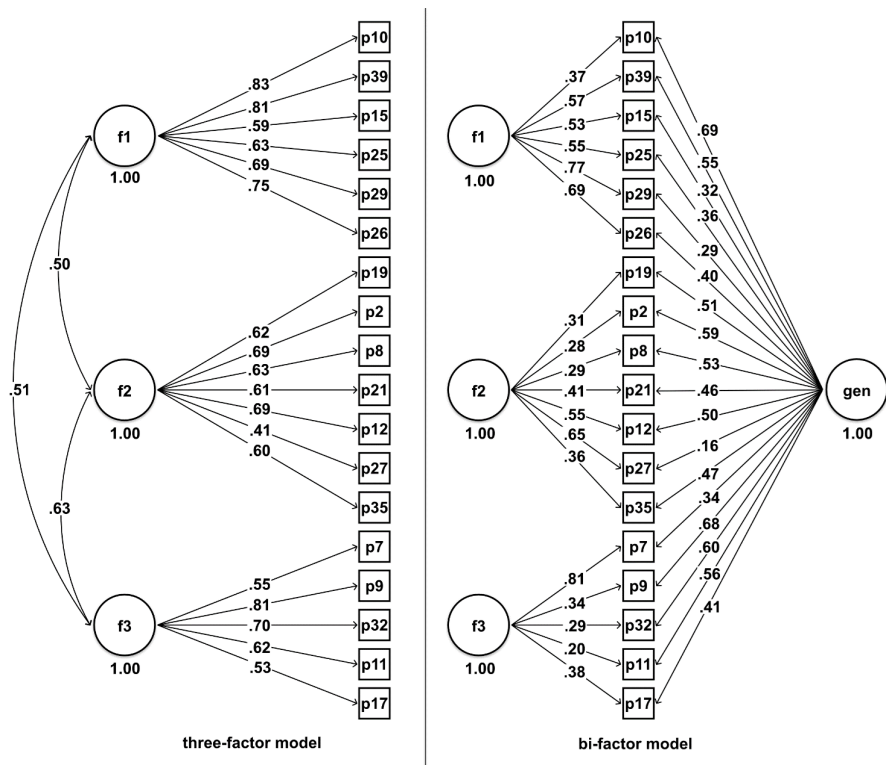


Figure 2. Schematic of the three-factor and bi-factor models (data from 2012).

Source: Authors' research.

## Analysis of scale reliability and dimensionality

The reliability of the SPK-II was estimated for the version of the scale adopted on the basis of the bi-factor model.

Using the Cronbach's alpha, classic measure of internal consistency, the SPK-II should be considered a reliable tool. The Cronbach's alpha coefficient for the total score was 0.83, and for the subscale scores, respectively: 0.81; 0.73 and 0.73<sup>3</sup>.

Furthermore, based on the parameters of the adopted model, an overall assessment of the reliability and dimensionality of the scale was made. Table 4 presents the measures used for this purpose. Because the results obtained from 2012 and 2020 are similar, only those related to the essential analyses were subjected to statistical interpretation.

Table 4. Reliability of the scale based on the bi-factor model.

FACTORS	$\omega (\omega_s)^*$		$\omega_H (\omega_{HS})^{**}$		ECV	
	2012	2020	2012	2020	2012	2020
<b>general factor</b>	0.91	0.94	0.68	0.74	0.49	0.55
<b>subfactor I</b>	0.88	0.92	0.56	0.49	0.24	0.21
<b>subfactor II</b>	0.82	0.85	0.36	0.36	0.15	0.15
<b>subfactor III</b>	0.81	0.84	0.31	0.27	0.12	0.09

\* the symbol  $\omega_s$  refers to subfactors; \*\* the symbol  $\omega_{HS}$  refers to subfactors

Source: Authors' research.

An overall measure of reliability of the SPK-II was calculated using the coefficient omega ( $\omega$ ). It reports what proportion of the variance of the scale's total score<sup>4</sup> is explained by all factors considered in the model. A value of  $\omega > 0.70$  (Nunnally, 1967) indicates a reliable multidimensional construct reflecting the variance of the latent variables (Rodriguez et al., 2016a, 2016b). Based on the obtained value of  $\omega = 0.91$ , it can be assumed that the SPK-II has high reliability.

<sup>3</sup> In the estimates for the 2020 data, the Cronbach's alpha coefficient for the whole scale was 0.89 and for the subscales, respectively: 0.88; 0.80 and 0.80.

<sup>4</sup> The total score corresponds to the general factor.

The reliability results for subscales<sup>5</sup> are presented by the coefficient  $\omega_s$ . In its calculation, only the loadings of questions measuring a subfactor are included. Thus, it contains information about how much of the variance in the score within a subscale is explained jointly by the general factor and the measured subfactor. Interpreting the obtained values of coefficients  $\omega_s$  ( $\omega_{s1} = 0.88$   $\omega_{s2} = 0.82$   $\omega_{s3} = 0.81$ ) reveals a high internal consistency of all the SPK-II subscales.

The next measure is the hierarchical coefficient omega ( $\omega_H$ ), which reports how much of the variance in the total score is explained by the general factor. In the case of the SPK-II, it shows to what extent the total score for the tool can be interpreted as an indicator of the variable of interest, namely the general propensity to adopt conformist attitudes. If  $\omega_H$  is greater than 0.80 it should be assumed that the total score is the result of a single factor and the entire tool is unidimensional (Rodriguez et al., 2016b). Thus, the resulting value  $\omega_H = 0.68$  indicates that the SPK-II is not unidimensional. At the same time, in order to interpret the scale score as the result of a given factor, the value of the coefficient  $\omega_H$  must be  $> 0.50$ , and ideally around 0.75 (Reise et al., 2013). Referring to the obtained value of this coefficient, it can be considered close to satisfactory - the general factor explains 68% of the variability of the scale's total score. Thus, the 18 items that make up the scale contain an important amount of information about the general propensity to adopt conformist attitudes.

A measure analogous to  $\omega_H$  for subfactors is the coefficient  $\omega_{HS}$ . It reports what percentage of the variance in the score of a given subscale is explained solely by the variance of a given subfactor (the effect of general factor variability is controlled for) (Reise et al., 2013). By analysing the values of  $\omega_{HS}$  for the subscales ( $\omega_{HS1} = 0.56$ ;  $\omega_{HS2} = 0.36$ ;  $\omega_{HS3} = 0.31$ ), it should be assumed that only the first subfactor reached the value authorizing it to be perceived as having substantive meaning independent of the general factor. For the other two subfactors, the values of  $\omega_{HS}$  are too low to be interpreted independently of the general factor.

The last discussed measure indicating the meaning of individual factors in the adopted bi-factor model is the ECV. The ECV values  $> 0.70$  indicate a strong effect of a given factor, which is a rationale for choosing a unidimensional model (even if the original data structure is multidimensional) (Rodriguez et al., 2016b). For the general factor in the SPK-II, the ECV is 0.49, meaning that 49% of the model's common variance is attributed to the general factor. The subfactors explain 24%, 15%, and 12% of the model's variability, respectively.

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<sup>5</sup> Individual subscales reflect subfactors.

Thus, the SPK-II is not substantively homogeneous, and the choice of the bi-factor model was fully justified.

Summarizing the conducted reliability and dimensionality analyses of the SPK-II for 2012 and 2020 data, it should be assumed that the scale is a reliable and multidimensional tool. The total score from the scale satisfactorily reflects the intensity of the general propensity to adopt conformist attitudes. However, this is not a homogeneous construct, so it is necessary to take into account the results from individual subscales representing the attributes of this tendency. At the same time, in the adopted bi-factor model, the subscales have low levels of independence from the general factor (especially the second and third factor). Therefore, the conclusions drawn from their scores should be set in the context of the intensity of the general factor, i.e. the general propensity to adopt conformist attitudes. This is consistent with the theoretical assumptions made in the construction of the SPK.

### **Application of the SPK-II**

The SPK-II consists of 18 items and is a self-reporting tool designed to survey 16–19-year-olds. The latent structure of the scale, confirmed by the bi-factor model, consists of a general factor and three subfactors. They delineated subscales reflecting specified attributes of the general propensity to adopt conformist attitudes. These subscales are indicators for measuring three latent characteristics that, given the content of the individual items, can be attributed to the operational indicators of conformity adopted in the construction of the scale. These are:

- subscale S - lack of self-confidence expressed in an individual's beliefs about themselves;
- subscale U - submissiveness to others as expressed in an individual's behaviour;
- subscale P - passivity in expressing one's own views.

Additionally, the given wording of the constructs measured by the subscales is confirmed by Cattell's (1948) and Gough and Heilbrun's (1980) description of personality traits (*The Adjective Check List*).

#### *Calculation and interpretation of results*

The analysis of the SPK-II results is quantitative in nature. The subject is asked to answer to each statement on a five-point response scale. The calculation of the total raw score is made by adding up the scores from all the answers given to the scale items as follows: 5 – “definitely yes”; 4 – “yes”; 3 – “hard to say”;

2 – “no”; 1 – “definitely not”. Five statements are reverse diagnostic questions where the scoring should be reversed. These questions are labelled in Table 5. Similarly, the raw score for each subscale is the sum of the points obtained for the responses to the statements included in it, according to the key provided.

Table 5. Key to the individual subscales of the SPK-II

Subscale	Number of items	Item number*	Sum of points
subscale S - lack of confidence	6	5; <b><u>8</u></b> ; <b><u>12</u></b> ; <b><u>13</u></b> ; <b><u>15</u></b> ; 18	6-30
subscale U – submissiveness	7	1; 3; 7; 10; 11; 14; 17	7-35
subscale P - passivity	5	2; 4; <b><u>6</u></b> ; 9; 16	5-25

\* reverse diagnostic question numbers in bold and underlined

Source: Authors' research.

The total score obtained should be interpreted in terms of the intensity of the general propensity to adopt conformist attitudes. The higher the score, the stronger the tendency to adopt an attitude of subordination to external pressures or to adapt one's own behaviour and ways of thinking to those generally accepted in a particular reference group. Results from each subscale identify important attributes of conformity, reflecting, respectively, lack of confidence (subscale S), submissiveness to others (subscale U), and passivity in expressing one's own views (subscale P). It can be assumed that along with the increasing score on a given subscale, the general propensity to adopt conformist attitudes becomes more saturated with the attribute in question.

## Discussion

The developed Conformist Attitudes Scale (SPK-II) fills a gap resulting from the lack of standardized research tools - both Polish and foreign - whose diagnostic spectrum concerns the measurement of a general propensity to adopt conformist attitudes.

The obtained psychometric properties of the SPK-II lead to a conclusion that the developed tool has good parameters. At the same time, the scale used in measurements nearly a decade apart maintained a stable factor structure, dimensionality, and high reliability.

However, the need for continued work on the SPK-II should be recognized. Subsequent analyses should aim to verify multi-group measurement in-

variance for age and gender (including identification of the DIF - *Differential Item Functioning*), and longitudinal measurement invariance to determine the test-retest reliability of the scale. It will also be necessary to assess the criterion validity by correlating the SPK-II results with those obtained from other measurement instruments such as the: *Creative Behaviour Questionnaire* (KANH); *Personal Competence Scale* (KompOs); *Multidimensional Self-Esteem Inventory* (MSEI); *State-Trait Anxiety Inventory* (STAI). Subsequently, it is necessary to develop standard norms for the tool.

Nevertheless, even at this stage, the SPK-II offers the possibility of application for cognitive purposes. It can be used without obstacles in research directed at measuring important elements of adolescents' personality structure, as well as in analyses of relations between the propensity to adopt conformist attitudes and negative experiences in peer relationships or the tendency to be influenced by both positive and negative groups of reference.

The SPK-II can also be used in pedagogical diagnostic activities. Treating conformity as an important mechanism of development in adolescence that regulates relations within the group, the scale can be included especially in the upbringing diagnosis toolkit. This is because during adolescence, one of the most important factors affecting youth's functioning is stress related to peer rejection and anxiety about one's position in the group structure. In this context, conformity is an adaptive mechanism that protects against rejection and guarantees the experience of a sense of closeness and belonging. Moreover, it can be hypothesized that the activation of the process of separation-individuation in adolescence is associated with increasing conformization of behaviour in relation to the peer group. If it is a positive group of reference, a high-level propensity to adopt conformist attitudes can be considered as a specific potential of the individual. It is also the basis for creating pedagogical situations related to the acquisition of competencies for teamwork, learning to act in group space and within wider social circles. Whereas, if it is a negative (deviant) group of reference, a high-level propensity to adopt conformist attitude makes it possible to predict the dynamization of the process of behaviour deviation in youth at risk of social maladjustment. Therefore, the SPK-II can also be used in the area of resocialization diagnosis. In both cases described above, the estimation of the level of an individual's propensity to adopt conformist attitudes makes it possible to predict his or her behaviour in various situations related to group participation and to profile upbringing or resocialization actions accordingly.

With respect to results that can be obtained from the SPK-II, it is not possible to determine *a priori* the pedagogically desirable intensity of the propensity



to adopt conformist attitudes. However, it should be assumed that a low propensity to adopt a conformist attitude is associated with a risk of failure in the group integration process. Whereas a high propensity to adopt conformist attitudes, although a protective mechanism against peer rejection, is associated with the risk of losing individual identity in favour of group identity and the formation of a fuzzy identity (Wysocka, 2013), which results in blocking the autonomous development of the individual. Additionally, the question of the pedagogically desirable intensity of the tendency toward conformity must be considered in the context of the type of group with which the individual identifies.

All of the possible applications of the SPK-II presented above are areas of further research that will be pursued by the authors of the article.

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## Appendix:

### SKALA POSTAW KONFORMISTYCZNYCH (SPK-II)

autorstwa: S. Opozdy-Suder; K. Karteczki-Świątek

Przeczytaj proszę uważnie znajdujące się poniżej zdania i zdecyduj, na ile odnoszą się do Ciebie. W przypadku stwierdzeń dotyczących innych osób pomyśl o swoich kolegach/koleżankach. Następnie zaznacz odpowiedź na zawartej obok każdego pytania skali, stawiając w odpowiednim polu krzyżyk (x). Jeśli przez przypadek zaznaczysz błędną odpowiedź, weź ją w kółko, a przy tej prawidłowej postaw krzyżyk. Jeśli to możliwe, odpowiedzi „trudno powiedzieć” unikaj.

Po zakończeniu pracy upewnij się, że dokonałeś (-aś) wszystkich wyborów i nie opuściłeś (-aś) żadnego pytania. Za wyrozumiałość i rzetelne odpowiedzi z góry dziękujemy.

1 – zdecydowanie nie    2 – raczej nie    3 – trudno powiedzieć    4 – raczej tak    5 – zdecydowanie tak

Twierdzenie	1	2	3	4	5
1. Szybko zmieniam swoje poglądy pod wpływem innych					
2. Nigdy nie wypowiadam pierwszy (-a) swoich opinii					
3. Na ogół robię to na co inni mają ochotę, choć nie zawsze mi się to podoba					
4. Nie wygłaszam swoich opinii bo obawiam się, że zostaną wyśmiany (-a)					
5. Uważam, że brakuje mi pewności siebie					
6. Zawsze wyrażam własne zdanie, mimo iż mogę narazić się przez to innym					
7. Często uzależniam swoje zdanie od opinii moich kolegów/koleżanek					
8. Wierzę, że w życiu osiągnę wyznaczone sobie cele					
9. Nigdy nie wychodzę z inicjatywą					
10. Często potrzebuję innych by mną pokierowali					
11. Zazwyczaj postępuję tak jak większość moich kolegów/koleżanek					
12. Jako człowiek znam swoją wartość					
13. Znam swoje możliwości i potrafię je wykorzystać					
14. Moje poglądy i przekonania często są wzorowane na postępowaniu innych					
15. Jestem zadowolony (-a) z siebie					
16. Nigdy nie wypowiadam głośno tego, co naprawdę myślę					
17. Kiedy nie wiem jak postąpić, zachowuję się tak samo jak moi koledzy/koleżanki					
18. Często mam poczucie, że jestem gorszy (-a) od innych					

### An update of the item numbering (SPK-I → SPK-II)

subfactor I / subscale S	subfactor II / subscale U	subfactor III / subscale P
10 → 5	2 → 1	7 → 2
15 → 8	8 → 3	9 → 4
25 → 12	12 → 7	11 → 6
26 → 13	19 → 10	17 → 9
29 → 15	21 → 11	32 → 16
39 → 18	27 → 14	
	35 → 17	