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A STRUCTURAL ANALYSIS OF DECONVERSION PROCESSES IN ADOLESCENCE – THE CONSTRUCTION OF THE ADOLESCENT DECONVERSION SCALE

The presence of spiritual and religious changes in adolescence is strongly supported by the existing theory and research. In the present article we propose to apply a deconversion-based approach to the exploration of religious crisis in adolescence. Streib developed the theory of deconversion in the context of the growing interest in atheism and apostasy. In the proposed approach, deconversion processes comprise all changes in personal religiosity that involve a departure from the current ways of manifesting religiosity. Drawing on Streib's theory, on the basis of research conducted on 323 people, we constructed the Adolescent Deconversion Scale. Analyses revealed the existence of four dimensions, which we interpreted as: (1) abandoning faith, (2) withdrawal from the community, (3) experiencing transcendental emptiness, and (4) moral criticism. The reliability and validity of the new method were assessed and found to be acceptable.

Keywords: deconversion; adolescence; spiritual transformation; Adolescent Deconversion Scale.

INTRODUCTION

Adolescence is a stage in the human developmental cycle characterized by extraordinary dynamism. The biological, psychological, and social changes that take place during this period naturally orient the young person to religious and spiritual developmental tasks, such as challenging the worldview and values, looking for meaning and purpose, experiencing transcendence, and looking for the sacred (King, Ramos, & Clardy, 2013; Levenson, Aldwin, & Igarashi, 2013). It is the time when young people begin the psychological attempt at consolidating and understanding their own experience and look for their identity in terms of family, social, and professional roles; religiosity may be an important factor in this process (King et al., 2013; Rydz & Zarzycka, 2008; Yonker, Schnabelrauch, & Dehaan, 2012). In particular, adolescence may play a protective role against engagement in problem behaviors (King, 2007; Niewiadomska et al., 2015; Rew & Wong, 2006; Wallace & Forman, 1998)

Religious transformations characteristic of adolescence were the object of psychologists' investigations from the very beginning of their interest in the domain of religion (e.g., Hall, 1904; Starbuck, 1901). Concluding their review of studies on these issues, Schnitker, Felke, and Barrett (2014) write that religious change in adolescence is characteristic for all populations. Hood, Spilka, Hunsberger, and Gorsuch (1996) maintain that religious changes usually occur between the age of 15 and 16. Other authors, such as Regnerus and Uecker (2006), extend this period to the age of 13-16. The transformation of religiosity has a multidimensional character and may result in a decrease or increase in religiosity. It is emphasized that the stage of adolescent religiosity is decisive to a person's future religiosity (Rydz, 2012, 2014).

Adolescence is associated with high sensitivity to ideals, which are tested in confrontation with the environment. In this period, the young person forms his or her outlook, moral beliefs, and religious attitudes. In the religious domain there may appear different forms of defiance against the existing order. This defiance may take the form of a change of affiliation with a religious group or manifest itself in assuming a rationalistic attitude towards life. It may also manifest itself in a total removal of all religiosity from one's life (Marianański, 2006, 2011).

In the domain of psychology, changes in religiosity have been traditionally referred to as "conversion" (cf. Paloutzian, 2005; Wulff, 1997/1999) or "religious crisis" (cf. Nowosielski, 2008; Pratt, 1920; Soński, 2010). The analysis of changes in religiosity in these terms highlights their transitional character. They may lead to a loss of religious faith, but they are frequently followed by new

religious commitment. This understanding of transformations of religiosity dominated in psychologists' studies (cf. Hood, Hill, & Spilka, 2009; Nowosielski, 2012), but it evolved (cf. Paloutzian, Murken, Streib, & Rößler-Namini, 2013, Sandage & Moe, 2013; Streib, Hood, Keller, & Silver, 2009; Wulff, 2002). First, gradual changes in religiosity were included in the scope of the concept of "conversion." Next, it was observed that conversion is connected with rational personal activity with diverse motivations behind it; conversion began to be placed in a broader context of spiritual transformation, understood as changes in the individual's personal meaning system. Finally, scholars acknowledged the need to take both the individual and social levels into account in research (cf. Nowosielski & Bartczuk, 2015).

An important aspect of spiritual and religious transformation, consisting in a departure from one's current system of beliefs, practices, and morality, as well as in disaffiliation from the religious or spiritual community, may be referred to as "deconversion." This has been a relatively seldom explored research area, despite being an element of all transformations of religiosity. After all, every conversion involves a deconversion from the previous religiosity or spirituality (cf. Streib et al., 2009).

Research on deconversion is important in view of the diverse changes currently taking place in the social picture of religiosity. On the one hand, since the 1960s, scholars have been discussing the processes of secularization, manifesting themselves in phenomena such as the increase in the number of apostasies, the crisis of church institutions, and the abandonment of the current religious identities (cf. Mariański, 2006, 2013; Streib & Hood, 2011; Streib & Klein, 2013; Zarzycka, 2009). On the other hand, a desecularization process is advancing; it is marked, for instance, by the emergence of new movements within the great religions, the creation of new (extraecclesiastic) religious identities (e.g., defining oneself as a "spiritual, but nonreligious" person), or the growth of interest in the religions of the East and in cults (cf. Mariański, 2006, 2013; Streib, 2008). From the psychological point of view, both secularization and desecularization imply changes in personal religiosity, consisting in a departure from the forms of religiosity that the individual has so far engaged in.

The social changes in the picture of religiosity are the context for the developmental changes taking place in adolescence (Bronfenbrenner, 1979), and therefore their reflection can be observed also in sociological research on young people's religiosity in Poland (Mariański, 2008, 2011; Potocki, 2014; Zaręba, 2012). Mariański (2008) observed that the unbelief declared by young people has been researched rather weakly. In the studies conducted so far, young people

have rarely been asked about the causes and motivations of their religious indifference or unbelief.

Theoretical assumptions of the Adolescent Deconversion Scale: Streib's deconversion theory

The theoretical basis of the Adolescent Deconversion Scale (ADS) is H. Streib's deconversion theory (Streib et al., 2009; cf. Nowosielski & Bartczuk, 2015). According to that theory, deconversion is "the change of a person's religious orientation in a specific biographical time which involves re-writing one's religious identity, revising one's system of beliefs and world views, and restructuring one's way of thinking, moral judgment, and dealing with authority – with a special focus on the act of leaving the old and searching for something different" (Streib et al., 2009, p. 23).

Expanding Barbour's (1994) model of deconversion, Streib and Keller (2004) proposed a five-dimensional structure of this phenomenon. The dimensions (referred to as criteria) distinguished by these authors are: (1) loss of specific religious experiences (a loss of the previously possessed meaning and purpose in life, a loss of the experience of God, as well as a loss of both trust in and a fear of God); (2) intellectual doubt (denial of or disagreement with specific beliefs, constituting changes in the ideological dimension of religiosity); (3) moral criticism (the rejection of the moral imperatives specific to a given religion or the achievement of a new level of moral reasoning); (4) emotional suffering (a loss of the sense of rootedness, support, stability, and security derived from religion), and (5) disaffiliation from the community (withdrawal from participation in meetings of the religious community or/and the abandonment of religious practices, which may lead to total termination of membership in a given community). Thus understood, deconversion comprises a broad range of changes in personal religiosity, including not only the renouncement of religion but also changes in religious orientation, a reduction of religion to the private domain, or the adoption of new spirituality (Streib et al., 2009).

The author of the deconversion theory considers this phenomenon in a developmental perspective, referring to Fowler's (1981) faith development theory and to his own religious styles perspective (Streib, 2001, 2005). In the developmental perspective, deconversion is a process taking place in a particular stage of an individual's biography, whose important element is criticism and change of religious cognitive schemas. It can therefore be seen as the abandonment of a certain religious style for a different one (Streib et al., 2009). From the developmental

point of view, there are structural deconversions, connected with the transition to a different developmental stage of faith, and lateral deconversions, occurring within one stage.

In the approach we propose, deconversion processes comprise all changes in beliefs, emotions, and behavior that involve a departure from the current ways of experiencing and/or manifesting religiosity. In other words, deconversion processes are psychological processes that lead to deconversion. In defining deconversion processes more specifically, we referred to the five dimensions of deconversion distinguished by Streib (Streib et al., 2009). We supplemented them with the dimension of disturbance in personal relationship with God, identified by Nowosielski (2008) on the basis of qualitative research on religious crisis in adolescence. His research suggested the existence of a domain of contact with God that is a personal relationship, in which there is mutual exchange. In crisis, this relationship is disturbed. The disturbance of personal relationship with God manifests itself in the loss of a sense of being a subject in that relationship, a lack of dialog, a sense of being abandoned, and a sense of one's prayers being unanswered – God becomes distant, and there is no sense of His closeness (Nowosielski, 2008). This dimensions seems to be specific to theistic religions, in which the personal nature of God is stressed.

RESEARCH PROBLEM

The aim of the presented research was: (1) to confirm the occurrence of the phenomenon of deconversion in adolescents; (2) to test the structure of deconversion processes in adolescence; (3) to construct the Adolescent Deconversion Scale (ADS) and to perform a preliminary assessment of its psychometric properties.

We expected that the percentage of people who changed their religious self-declaration to one implying a lower level of religious commitment would be significantly above zero and that the structure of ADS would reflect the six-factor theoretical structure. Moreover, when assessing construct validity of the ADS, we hypothesized that deconversion processes would correlate positively and the most strongly with religious crisis and negatively with religiosity; we assumed that the pattern of correlations between the dimensions of the Centrality of Religiosity Scale and ADS would reflect the correspondence between the dimensions of religiosity and deconversion processes. More specifically, we expected that the ideological dimension of the centrality of religiosity would be asso-

ciated with intellectual doubt, public practice with disaffiliation from the community, and religious experience with emotional suffering, loss of specific religious experiences, and loss of the sense of personal relationship with God. We also expected a positive correlation of deconversion with value crisis (Oleś, 2002; Śliwak, Zarzycka, & Rak, 2011; Wysocka, 2007) and a low correlation of ADS with social desirability (not higher than .30) (cf. Cohen, 1988).

METHOD

Sample and procedure

The study was conducted in 2012 in six high schools (general and technical) in Warsaw, Skierniewice, and Godzianów. We tested a total of 14 classes higher than the first grade. The study was anonymous and conducted during a lesson, on a group basis. Participation in the study was voluntary.

The participants were 323 students aged 16-20 ($M = 17.65$, $SD = 0.89$). Women constituted 55% of the sample, 82% of the participants came from complete families, and 58% lived in towns and cities. The participants' religious affiliations were as follows: Catholics – 90%; no particular religion – 4%; Orthodox Christians – 2%; Protestants, Pentecostals, Jehovah's Witnesses, and representatives of other religions – 1% in the case of each group. The participants had the following attitudes towards religion: 45% described themselves as religious and 27% as weakly religious; religiously indifferent people constituted 8% of the sample, and so did agnostics; 6% described themselves as very religious, 4% as atheists, and 2% as nonreligious.

Measures

A preliminary version of the Adolescent Deconversion Scale. The construction of the preliminary version of ADS proceeded as follows: (1) we established the definitions of specific deconversion processes and the significant contents of religiosity that are subject to these processes in each of the six theoretical dimensions (Hornowska, 2003; cf. Table 1); (2) based on the literature and the results of research concerning changes in young people's religiosity, we generated 172 items; (3) the construct validity of the items was assessed by competent raters, and on that basis we performed the final selection.

Table 1

Definitions of the Dimensions of Deconversion, Deconversion Processes, and Their Relevant Contents

Dimension of deconversion	Definition	Deconversion process	Relevant contents
Loss of specific religious experiences	A loss of the previously possessed meaning and purpose in life, a loss of the experience of God, a loss of the sense of trust in and fear of God	A decrease in the intensity of religious experience	A sense of God's presence, the importance of faith, a sense of God's influence on life, a sense of religious meaning and purpose in life
Intellectual doubt	Denial of or disagreement with specific beliefs and basic principles of faith	A weakening of religious beliefs	Belief in the existence of God, belief in an afterlife, a sense of certainty of religious beliefs
Moral criticism	The rejection of specific moral imperatives or the achievement of a new level of moral reasoning	Changes of religious moral judgments	The recognition of moral principles rooted in religion
Emotional suffering	A loss of the sense of rootedness, support, stability, and security stemming from religion	The intensity of unpleasant emotional states connected with religion	Emotions towards God
Disaffiliation from the community	Withdrawal from participation in meetings of the religious community or nonobservance of religious practices, leading to resignation from being part of the community	A weakening of the bond with the religious community	Participation in community activities, a sense of identity, contacts with the community
Loss of the sense of personal relationship with God	A loss of the sense of agency in the relationship with God, a lack of dialog, a sense of being abandoned and of one's prayers being unanswered	Disturbance in personal relationship with God	Lived relations with God, the image of God

The validity of the items was assessed by 30 competent raters with higher education: psychologists (18), theologians (7), family counselors (2), educationists (2), and one leader of a religious community. The raters assessed the items based on the definitions of particular deconversion processes, in accordance with the method proposed by Lawshe (1975), using a three-point format ("relevant to the measurement," "useful for the measurement but not capturing the essence," "irrelevant"). For each item we computed the content validity ratio (CVR) and compared it with the criterion of $CVR \geq .425$, corresponding to $p < .01$ for a one-way test (Wilson, Pan, & Schumsky, 2012). On that basis, we included

42 items in the preliminary version of the scale, with a four-point answer format expressing the degree of similarity between item content and the participant (0 – *completely untrue about me*; 1 – *somewhat true about me*; 2 – *true about me*; 3 – *very true about me*). The period that the participant takes into account when assessing the changes in his or her religiosity was set at 12 months.

Retrospective Analysis of Religiosity (RAR). To detect deconversion-related changes, we used a graphic method based on the methodology proposed by Płużek (1991). It has the form of a system of coordinates, in which the vertical axis corresponds to categories of religious commitment (“atheist,” “agnostic,” “nonreligious,” “indifferent,” “weakly religious,” “religious,” “very religious”), and the horizontal axis corresponds to the years of life. The participant draws a line on the chart to indicate the evolution of his or her religious commitment in the course of life so far. A decline of the “religiosity line” indicates changes that involve a weakening of the experience and expression of religiosity. This method served as an indicator of the presence of deconversion.

The Religious Crisis Scale (RCS). The RCS is a short screening scale measuring religious crisis, developed by W. Prężyna based on the Fear of Uncertainty subscale from the Lived Relations to God Scale by Hutsebaut (1980; Śliwak & Bartczuk, 2011). The psychometric development of the scale was carried out by Nowosielski and Bartczuk (2011). The RCS consists of five items measuring the level of ambivalence and doubt in the area of religiosity (e.g., “My attitude to religion is already stabilized” [reverse scored]; “Sometimes I anxiously think that everything I believe in concerning God rests on something uncertain”). Participants respond to the items using a 7-point Likert scale. The scale has acceptable reliability ($.74 \leq \alpha \leq .80$) and construct validity (Nowosielski & Bartczuk, 2011). In the present study, we used the RCS to measure the construct validity of ADS. In the current study sample, Cronbach’s α for the RCS was .76 ($M = 17.98$, $SD = 6.63$, $n = 322$).

The Centrality of Religiosity Scale (C-15). Developed by Huber (2003), C-15 is a measure of the centrality of religious constructs in personality. It has been applied in more than 100 studies in 25 countries, on a total of 1,000 people (Huber & Huber, 2012). C-15 consists of 15 items divided into five subscales operationalizing five core dimensions of religiosity (Intellect, Ideology, Private Practice, Religious Experience, and Public Practice), with three items in each subscale. The items measure the relative or absolute frequency or the level of activation of religious constructs specific to each dimension. The total score is the sum of subscale scores. In the present study we used the Polish version of C-15, adapted by Zarzycka (2007, 2011). In the adaptation study (Zarzycka,

2011), C-15 was found to have high reliability ($.80 \leq \alpha \leq .96$). In the present study, Cronbach's α was .94 for Centrality ($M = 43.17$, $SD = 13.26$, $n = 323$), and the following for the subscales: .81 for Intellect ($M = 7.59$, $SD = 2.62$), .89 for Ideology ($M = 1.59$, $SD = 3.28$), .91 for Private Practice ($M = 8.84$, $SD = 3.58$), .88 for Religious Experience ($M = 7.50$, $SD = 3.00$), and .83 for Public Practice ($M = 8.64$, $SD = 3.36$).

The Value Crisis Questionnaire (VCQ). We measured the value crisis using the VCQ by Oleś (1991). This instrument consists of 25 "true-?-false" items relating to difficulties in the process of evaluation. The VCQ is based on the concept of crisis as a state of tension and internal disorganization, accompanied by: (a) difficulty in organizing personal values into a coherent and hierarchically structured system; (b) a sense of having lost one's values, usually caused by significant reappraisals; (c) disintegration between the cognitive, affective, and motivational aspects of evaluation processes, and (d) a sense of not realizing one's values. The validity and reliability of the VCQ has been confirmed by the author (Cronbach's α was .90 and test-retest stability over an interval of two weeks was .88). In the present study, the VCQ was completed by a randomly selected half of the respondents ($n = 178$). The Cronbach's α coefficient was .83 ($M = 17.20$, $SD = 8.92$) and ranged from .51 to .67 for particular subscales. Due to the relatively low reliability of the subscales, we took only the overall VCQ score into account in analyses.

The Social Desirability Questionnaire (SDQ). The method developed by Wilczyńska and Drwal (1983) measures the intensity of the desire to be accepted by others and the resulting willingness to behave in a socially accepted way. The SDQ is a cultural reconstruction of the well-known Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960). The questionnaire consists of 29 "yes-no" items describing behaviors and traits, unambiguously socially desirable (or undesirable), which have no psychopathological contents. The reliability coefficients obtained by the authors of the test were as follows: Cronbach's $\alpha = .81$, stability over an interval of five weeks – .79. In the present study, the SDQ was completed by a randomly selected half of the respondents ($n = 144$). Cronbach's α was .68 ($M = 14.7$, $SD = 4.26$).

Data analysis

We analyzed only the scores of those respondents who answered at least 80% of the items of a given method. The missing data were replaced in accordance

with the procedure based on canonical variables (Harrell, 2010). We filled in 91 cases of missing data, which constituted 8% of all scores.

We tested the hypothesis that the likelihood of deconversion in the sample was higher than 0 using a binomial test.

To verify the hypothesized structure of deconversion processes, we performed a factor analysis with oblique target rotation (Bernaards & Jennrich, 2005). This rotation makes it possible to transform the matrix of factor loadings in such a way that it is fitted as much as possible to another matrix. In the current analysis, the unrotated factor solution was transformed in such a way that the factor loadings diverged as little as possible from the model matrix, in which the items assigned by the raters to a given dimension had a correlation equal to 1 with that dimension and a correlation of 0 with the remaining dimensions. Oblique rotation made it possible to obtain intercorrelated factors, which was consistent with the theoretical assumptions of the method (various deconversion processes are interrelated because they are manifestations of the same phenomenon). We tested the congruence of the rotated matrix with the model matrix using Tucker's ϕ congruence coefficient, whose criterion value is .90 (Lorenzo-Seva & ten Berge, 2006). The exploration of the dimensionality of ADS was performed by applying the Velicer criterion (Velicer, 1976; MAP – Minimum Average Partial) and parallel analysis. The exploratory factor analysis was performed by means of the principal axis method with Promax rotation.

In the analysis of the discriminatory power of the items, we applied the correlation coefficient corrected for the variance overlap between the items. In the correlation formula, item variance is replaced by the squared multiple correlation of this item with all the remaining items. We assessed the reliability of the measure using the method of internal consistency, by means of two coefficients: Cronbach's α and Guttman's λ_6 (cf. Sijtsma, 2009). The analyses were performed by means of R (R Core Team, 2014).

RESULTS

The occurrence of deconversion processes

In order to verify the occurrence of deconversion in the sample, we analyzed the drawings obtained by means of the RAR method. We sought a stable decline of the "religiosity line" on the Religious Commitment scale by at least one degree in the last two years. Out of 323 drawings, 242 (.749 [95% CI = .706];

$p < .001$) met the criterion; additionally, in 103 drawings (.319 [95% CI = .276]; $p < .001$) there was a decline of the “religiosity line” by 2 degrees or more. Based on the results of the binomial test, we acknowledged the occurrence of observable changes in the participants’ religiosity, consisting in a weakening of religiosity.

In further analyses we used the results of 241 participants experiencing deconversion who at the same time completed the ADS.

The structure of deconversion processes

At the beginning of the analyses, we hypothesized that the structure of ADS corresponded to the 6-dimensional structure of deconversion, described in the theoretical section. After a preliminary examination of the data (KMO = .948; Bartlett’s test: $\chi^2(861) = 6.847$, $p < .001$; lowest MSA = .863), we performed a factor analysis using the principal axis method, extracting six factors. The obtained matrix of factor loadings was subjected to oblique target rotation towards the model configuration. The obtained solution was compared with the model configuration. Tucker’s ϕ congruence coefficient for the whole table was .64, its values for particular dimensions were as follows: Intellectual doubt – .57; Emotional suffering – .53; Moral criticism – .83; Loss of specific religious experiences – .31; Disaffiliation from the community – .76; Loss of a sense of personal relationship with god – .74. Thus, the analysis revealed that the data did not fit the hypothesized model structure.

Because the theoretical structure was not confirmed, in the second step we performed an exploratory factor analysis of the structure of ADS. The analysis of dimensionality, both by means of parallel analysis and by means of the Velicer criterion, yielded five factors. We therefore performed a factor analysis using the principal axis method, extracting five factors (which together explained 55% of variance in the observable variables), and we subjected the outcome to Promax rotation. The results of analysis in the form of the matrix of factor loadings after rotation are presented in Table 2.

Table 2
Factor Analysis of ADS – the Matrix of Factor Loadings After Rotation

Item	Contents	Model factor	F1	F2	F3	F4	F5
ads37	I have begun to doubt that God exists	1	.890	-.098	-.179	.041	.177
ads24	I come to the conclusion that religion is a human invention	1	.819	-.035	-.185	.143	.041
ads39	I no longer feel any relationship with God	6	.813	-.008	-.044	-.125	.182
ads04	I more and more often think of leaving the religious community (the Church)	5	.626	.061	.307	-.181	-.209
ads30	The concept of God has become totally incomprehensible to me	1	.601	.081	.039	.199	-.090
ads18	Faith has begun to appear to me to be full of contradictions	1	.509	.053	.160	.170	-.024
ads11	I have ceased to experience intimacy with God	6	.443	.360	.018	-.019	.068
ads36	I am experiencing defiance against God that I have never felt before	6	.354	.066	.223	.056	.092
ads28	The religious community (Church) is becoming less and less important to me	5	.174	.952	-.203	-.125	.083
ads22	My contacts with the religious community (Church) have grown weaker	5	-.116	.830	-.008	.031	.109
ads35	I have ceased to attend religious meetings (services)	5	.320	.596	-.191	-.187	.003
ads21	I no longer experience church services so deeply as I did until recently	4	-.183	.565	.159	.052	.163
ads16	For some time I can see no point in participating in communal prayers	5	.267	.563	.066	-.041	-.045
ads10	I believe in God, but I no longer need a religious community (the Church) for this	5	-.326	.518	.052	.353	-.095
ads27	I have a feeling that my religious development has stopped	4	-.058	.506	.041	.496	-.120
ads15	My spiritual life has weakened very much	4	.040	.402	.090	.104	.274
ads42	I can no longer describe my relationship with God as a close personal relationship	6	-.060	.390	.277	-.064	.252
ads40	I have become more tolerant of my own transgression of the commandments	3	-.044	.363	.008	.288	.127
ads38	I have increasingly less in common with my fellow believers	5	.049	.324	.272	.118	-.037
ads03	My faith no longer has the influence on my life that it had before	4	.189	.277	.227	.134	-.063
ads13	Religion has ceased to give me comfort in the worries of my life	2	.023	.260	.225	.148	.219
ads07	I have begun to experience emptiness in my religious life	2	.098	.034	.847	-.226	.061
ads05	I more and more often feel that God has rejected me	6	-.044	-.191	.722	.084	.188
ads01	Sorrow has begun to dominate in my religious life	2	-.173	-.023	.702	-.116	-.062
ads17	I feel increasingly abandoned by God	6	-.028	-.140	.630	-.047	.420
ads12	I can't cope with the doubts that I can see in my religiosity recently	1	-.123	.031	.610	.073	.118
ads06	The foundations of my faith have begun to raise my doubts	1	.079	.131	.587	.007	.072
ads02	I have begun to reject some of the commandments of my religion	3	.227	.086	.181	-.246	.434
ads41	I feel more and more resentment towards God	6	.159	-.155	.423	-.051	.286

Item	Contents	Model factor	F1	F2	F3	F4	F5
ads31	I cease to understand why – according to religion – I cannot live the way I want to	3	.001	-.125	-.245	.918	.174
ads14	In have begun to perceive obeying religious moral principles as a limitation of my freedom	3	.190	-.069	.002	.718	-.023
ads26	The moral principles of my religion more and more often seem to me to be impractical or too difficult to obey	3	.020	.074	.022	.646	.051
ads20	I have begun to doubt if it is possible to obey all the commandments	3	-.137	.202	.076	.605	.036
ads34	I more and more often believe that my conduct is my private business, not a religious issue	3	.314	.296	-.320	.451	-.003
ads08	I agree less and less with the moral teaching of the religion I profess	3	.059	.180	.270	.392	-.124
ads33	Recently, I find it difficult to accept the dogmas of my religion	1	.143	.215	.168	.361	-.061
ads09	I feel that God has ceased to have an influence on my life	4	.247	-.002	.226	.261	.103
ads25	God no longer gives me the sense of security that I have experienced before	2	.353	-.030	-.030	.136	.505
ads23	God has begun to appear very distant to me	6	.147	.121	.238	.056	.425
ads29	I more and more often experience a lack of God	6	.218	-.003	.233	.091	.388
ads32	My prayer has ceased to be a dialog with God	6	.242	.239	-.001	-.025	.380
ads19	I no longer derive strength from religion to struggle with everyday difficulties	2	.141	.210	.153	.106	.273

Note. Model factor codes: 1 – Intellectual doubt, 2 – Emotional suffering, 3 – Moral criticism, 4 – Loss of specific religious experiences, 5 – Disaffiliation from the community, 6 – Loss of the sense of personal relationship with God. F1-F5 – factors obtained in analysis. Factor loadings $\lambda > .50$ have been indicated with bold type.

We adopted the factor loading value of $\lambda > .50$ as the criterion for including an item in a particular factor. Twenty-four items met this criterion.

We interpreted the first factor as Abandoning Faith – comprising four items classified by the raters into the area of intellectual doubts, plus one item from the area of the sense of losing a personal relationship with God and one from the area of disaffiliation from the community. The contents of the items shows that the processes of which they are indicators take place mainly in the intellectual domain and are characterized by an intensification of doubts and thoughts of abandoning faith for agnosticism or atheism.

The second factor – Withdrawal From the Community – consists of five items representing disaffiliation the community and two items representing the loss of specific religious experiences. The content of these items concerns mainly the processes of losing the bond with the current group of fellow believers. It also reflects the experience of a weakening of spiritual life.

The third factor was named Experiencing Transcendental Emptiness – it included two items concerning the loss of a personal relationship with God, two items concerning emotional suffering, and two items concerning intellectual

doubts. This dimension corresponds to the processes taking place in the interpersonal and emotional domain, characterized by an intensification of unpleasant emotional states, such as emptiness, a sense of rejection, and sorrow, as well as existential difficulties connected with religion.

The fourth factor consists of four items related to Moral Criticism – that is, a rejection of the moral principles taught by religion.

The fifth factor is represented by only one item from the domain of emotional suffering, but the analysis of the contents of the remaining items with the highest loadings on this factor suggests that it can be interpreted as Disturbance of the Relationship With God. However, because it is too weakly represented in the current version of the scale, it will not be considered in further analyses.

The psychometric properties of ADS

Eventually, the ADS was composed of four subscales: Abandoning Faith (6 items), Withdrawal From the Community (7 items), Experiencing Transcendental Emptiness (6 items), and Moral Criticism (4 items). In order to assess the psychometric properties of the scale, we computed the discriminatory power of the items as well as assessed their sensitivity to the respondents' tendency to present themselves in a better light, the reliability of the subscales and the total score on the scale, the intercorrelations between scales, and the validity of the instrument by correlating its scores with other questionnaire-based methods.

The characteristics of ADS items

We computed the discriminatory power of the items by correlating each item score with the subscale score and with the total score. The results of the discriminatory power analysis are presented in Table 3. The indices of discriminatory power with regard to the subscales ranged from .48 to .90 (median: .75). The index for one item from the Experiencing Transcendental Emptiness subscale ("Sorrow has begun to dominate in my religious life") was below .50. All items had the highest correlations with the subscales they were part of. The indices of discriminatory power with regard to the total score ranged from .33 to .79 (median: .68). The value of this index was lower than .50 only in the case of the item mentioned above.

The degree to which the scores on particular items are likely to be affected by respondents' tendency to present themselves in a better light (i.e., their susceptibility to social desirability bias) was assessed by correlation with the SDQ score. The results of the analysis are presented in Table 3 (column ρ_{KAS}). Five

items correlated significantly with SDQ (though the effect size was small); three of them were Abandoning Faith items and the remaining two represented the Withdrawal From the Community factor.

Table 3
The Psychometric Properties of ADS Items

Item	Contents	Factor	r_S	r_T	ρ_{SDQ} ($n = 144$)
ads04	I more and more often think of leaving the religious community (the Church)	1	.61	.56	-.19*
ads18	Faith has begun to appear to me to be full of contradictions	1	.78	.77	-.07
ads24	I come to the conclusion that religion is a human invention	1	.81	.70	-.18*
ads30	The concept of God has become totally incomprehensible to me	1	.75	.70	-.17*
ads37	I have begun to doubt that God exists	1	.83	.70	-.14
ads39	I no longer feel any relationship with God	1	.79	.68	-.08
ads10	I believe in God, but I no longer need a religious community (the Church) for this	2	.63	.55	-.15
ads16	For some time I can see no point in participating in communal prayers	2	.77	.75	-.09
ads21	I no longer experience church services so deeply as I did until recently	2	.67	.64	-.03
ads22	My contacts with the religious community (Church) have grown weaker	2	.84	.77	-.14
ads27	I have a feeling that my religious development has stopped	2	.70	.68	-.11
ads28	The religious community (Church) is becoming less and less important to me	2	.90	.79	-.18*
ads35	I have ceased to attend religious meetings (services)	2	.61	.53	-.19*
ads01	Sorrow has begun to dominate in my religious life	3	.48	.33	.08
ads05	I more and more often feel that God has rejected me	3	.74	.58	-.09
ads06	The foundations of my faith have begun to raise my doubts	3	.78	.72	-.10
ads07	I have begun to experience emptiness in my religious life	3	.83	.66	-.05
ads12	I can't cope with the doubts that I can see in my religiosity recently	3	.65	.57	-.09
ads17	I feel increasingly abandoned by God	3	.69	.63	-.07
ads14	In have begun to perceive obeying religious moral principles as a limitation of my freedom	4	.81	.72	-.16
ads20	I have begun to doubt if it is possible to obey all the commandments	4	.72	.66	-.14
ads26	The moral principles of my religion more and more often seem to me to be impractical or too difficult to obey	4	.78	.71	-.05
ads31	I cease to understand why – according to religion – I cannot live the way I want to	4	.74	.64	-.14

Note. r_S – discriminatory power with regard to the subscale; r_T – discriminatory power with regard to the total score; ρ_{SDQ} – correlation with SDQ; the discriminatory power coefficients have been corrected due to the overlap of the variance of items; * $p < .05$; ** $p < .01$; *** $p < .001$.

The reliability of ADS and the intercorrelations of subscales. We assessed the reliability of ADS using the method of internal consistency, by means of two coefficients: Cronbach's α and Guttman's λ_6 (cf. Sijtsma, 2009). The descriptive statistics for ADS and the results of reliability analysis are presented in Table 4. We obtained no significant associations of deconversion with age, gender, or type of the respondent's family (complete vs. incomplete). Respondents from the country scored significantly lower than those from towns and cities on ADS as a whole (country: $M = 0.85$, $SD = 0.69$; town/city: $M = 1.09$, $SD = 0.68$, $t(321) = 3.104$, $p = .002$) as well as on the following subscales: Abandoning Faith (country: $M = 0.60$, $SD = 0.77$; town/city: $M = 0.93$, $SD = 0.82$, $t(321) = 3.715$, $p < .001$), Withdrawal From the Community (country: $M = 1.80$, $SD = 0.85$; town/city: $M = 1.41$, $SD = 0.85$, $t(321) = 3.426$, $p = .001$), and Moral Criticism (country: $M = 0.97$, $SD = 0.87$; town/city: $M = 1.19$, $SD = 0.86$, $t(321) = 2.228$, $p = .027$).

Table 4

Descriptive Statistics, Reliability, and First-Order Correlations of ADS Subscales (n = 323)

No.	Variable	<i>M</i>	<i>SD</i>	Min.	Max.	α	λ_6	1.	2.	3.	4.
1.	Abandoning faith	0.79	0.81	0	3	.89	.90				
2.	Withdrawal from the community	1.27	0.86	0	3	.89	.90	.67			
3.	Experiencing transcendental emptiness	0.79	0.71	0	3	.85	.86	.62	.58		
4.	Moral criticism	1.09	0.87	0	3	.85	.84	.67	.71	.57	
5.	Deconversion (total score)	0.99	0.69	0	2.74	.94	.96	.87	.89	.80	.84

All reliability coefficients were high. The obtained means are noteworthy. Scores on Withdrawal From the Community and Moral Criticism were higher than scores on Experiencing Transcendental Emptiness and Abandoning Faith, which suggests a greater intensity of the former two deconversion processes in the tested sample.

The structural validity of ADS. The obtained intercorrelations of subscales are high (cf. Table 4), which indicates that deconversion processes are not very strongly differentiated in the tested sample. The general factor saturation index (Revelle & Zinbarg, 2009) obtained by means of an exploratory hierarchical factor analysis was $\omega_T = .96$, attesting to a high saturation of the scale with one factor, which is consistent with the theoretical assumptions.

The construct validity of ADS. We assessed the construct validity of the instrument by correlating its scores with measures of other variables theoretically

related to deconversion: religious crisis, centrality of religiosity, value crisis, and tendency to present oneself in a better light. Correlation with measures of religiosity and religious crisis were assessed on the whole sample, correlations with the measure of value crisis were computed for a sample of 177 people, and correlations with the measure of social desirability – for a sample of 142 participants. The results of correlation analysis are presented in Table 5.

Table 5
Correlations of ADS With C-15, RCS, VCQ, and SDQ

	<i>M</i>	<i>SD</i>	Abandoning faith	Withdrawal from the community	Experiencing transcendental emptiness	Moral criticism	Deconversion
Social desirability (SDQ)	14.72	4.20	-.19*	-.21**	-.16	-.18*	-.22**
Religious crisis (RCS)	17.98	6.63	.49***	.55***	.54***	.54***	.62***
Centrality of religiosity (C-15)	43.17	13.26	-.57***	-.54***	-.21*	-.39***	-.52***
Intellect (C-15)	7.59	2.62	-.21*	-.31***	-.06	-.21**	-.24***
Ideology (C-15)	1.59	3.28	-.57***	-.41***	-.20*	-.35***	-.46***
Private practice (C-15)	8.84	3.58	-.58***	-.45***	-.20*	-.36***	-.48***
Religious experience (C-15)	7.50	3.00	-.45***	-.43***	-.11	-.29***	-.39***
Public practice (C-15)	8.64	3.36	-.52***	-.61***	-.26***	-.37***	-.54***
Value crisis (VCQ)	17.20	8.92	.31**	.28*	.28**	.35***	.35***

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

Of the variables measured, religious crisis was theoretically the closest one to deconversion. As expected, the correlation of ADS with RCS was the highest, and the obtained effect was high.

We expected negative associations between deconversion and centrality of religiosity. We hypothesized that the pattern of correlations between the subscales of ADS and C-15 would reflect the correspondence between the dimensions of religiosity and the deconversion processes taking place in them. Deconversion correlated negatively with the overall score on the centrality of religiosity and with all of its dimensions. Stronger correlations were obtained in the case of Public Practice, Private Practice, and Ideology and weaker ones were found in the case of Intellect and Religious Experience, which may point to the specificity of religiosity in adolescence. The pattern of relations between deconversion processes and the dimensions of the centrality of religiosity reflected

the theoretical assumptions in the case of the processes of abandoning faith and withdrawal from the community. For experiencing transcendental emptiness, correlations were not consistent with the expectations. As predicted, value crisis correlated positively with deconversion.

ADS scores correlate negatively with SDQ scores; the effect sizes for the significant correlations are small, which attests to low sensitivity to the respondents' tendency to present themselves in a better light. Individuals susceptible to social desirability bias score lower on ADS.

DISCUSSION

The current paper is a presentation of the results of research on religious deconversion among adolescents. The presented results confirmed, above all, that adolescents experience deconversion processes. This conclusion is consistent with the current knowledge about the changes in religiosity taking place in adolescence (King et al., 2013; Levenson et al., 2013). The presented research was not conducted on a representative sample of adolescents, but its result shows that the phenomenon of deconversion takes place in about 75% of students.

The analysis of the structure of deconversion processes led us to the conclusion that four such processes can be distinguished: abandoning faith – predominantly taking place in the domain of beliefs; experiencing existential emptiness – experiential and emotional in nature; moral criticism – taking place in the domain of moral judgments; and withdrawal from the community – a process whose nature is social. The identified number of processes (ADS dimensions) is lower than the number theoretically hypothesized. Four of the hypothesized dimensions have not been clearly identified, namely: specific religious experience, intellectual doubt, emotional suffering, and disturbance of personal relationship with God. They have been, in a way, merged into the first two processes, which have a more individual character (the individual's beliefs and experiences). In contrast, the dimensions of disaffiliation from the community and moral criticism have been distinguished clearly; they reflect the predominantly social aspect of deconversion (changes in the social religious identity and in the attitude to group norms of behavior). The lower differentiation of the structure of deconversion processes in this period of life than in adults is probably a developmental pattern, consistent with the differentiation theory (Werner, 1957).

The results have shown that the two social dimensions are more intense than the remaining ones, which seems to suggest a social rather than individual char-

acter of deconversion in this developmental stage. This is consistent with the current state of knowledge in developmental psychology. In moral development, adolescence is the time of the young person's transition from the sphere of adults' influence to that of peers' influence (Oleszkowicz & Senejko, 2011). It is a time of perceiving oneself from the point of view of relations with peers and the rules of coexistence with them. It is from this point of view that the young person looks at his or her closest community – usually the family, which is the main source of religious tradition and teaching. Moral judgments are revised, and many of the current principles – accepted so far without reflection or under pressure from adults' authority – are challenged. The adolescent wants to have his or her own justification for following moral principles in life. This corresponds to the fourth stage in Kohlberg's second – conventional – level of moral development (Colby & Kohlberg, 1987; Kohlberg & Power, 1981), in which the laws of the community are more important than matters connected with performing specific social roles (cf. Socha, 2000). This leads to the conclusion that seeking his or her own identity in the context of social roles is more important for the teenager in deconversion than developing religious beliefs based on personal experience of faith. What may attest to this is the higher level of deconversion in towns and cities than in rural communities. An additional confirmation of this thesis is the fact that deconversion is associated with some dimensions of the centrality of religiosity strongly than with others. It is the most strongly associated with public practice, private practice, and ideology (beliefs) and less strongly with intellect (interests) and religious experience. The ideological (correspondence of beliefs with the religious system) and ritual dimensions of religion are more significant to the emergence of deconversion than personal interests and experience. Even in the dimension of transcendental emptiness is more strongly associated with social factors than with individual ones. According to Fowler (1981), adolescence corresponds to the third stage in the development of faith, in which a new perspective on the relationship with God emerges, accompanied by a kind of conformism consisting in the need to rely on the authority of significant others. Looking "through other people's eyes" makes it possible to revise one's current values and beliefs. The young person is more preoccupied with discovering his or her identity against the backdrop of significant others than with the system of faith as such, which, at this stage, is regarded as a kind of coherent "global whole" (Fowler, 1981).

The presented research led to the construction of the Adolescent Deconversion Scale. The structure and validity of this method found in this study should be cross-validated. A limitation of the method is its moderate susceptibility to the

tendency respondents' tendency to present themselves in a better light. Nevertheless, the ADS is an instrument with acceptable psychometric parameters as regards reliability, the discriminatory power of the items, and validity. The main area of its application is the study of the determinants and processes that, so to speak, prepare personal decisions leading to lasting changes in religiosity and spirituality. This refers both to the rejection of the current religious orientations (e.g., apostasies, engagement in mock religions, or so-called "heretical departures") and to their changes (e.g., engagement in new religious movements or conversions from Christianity to Judaism or Islam). These phenomena and research areas still remain highly relevant today.

REFERENCES

- Barbour, J. D. (1994). *Versions of deconversion: Autobiography and the loss of faith*. Charlottesville: University Press of Virginia.
- Bernaards, C. A., & Jennrich, R. I. (2005). Gradient projection algorithms and software for arbitrary rotation criteria in factor analysis. *Educational and Psychological Measurement*, 65(5), 676-696.
- Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Cambridge: Harvard University Press.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Colby, A., & Kohlberg, L. (1987). *The measurement of moral judgement, Vol. I: Theoretical foundations and research validation*. New York: Cambridge University Press.
- Crowne, D. P., & Marlowe, D. (1960). A new scale of social desirability independent of psychopathology. *Journal of Consulting Psychology*, 24(4), 349-354.
- Fowler, J. W. (1981). *Stages of faith. The psychology of human development and the quest for meaning*. San Francisco: Harper & Row Publishers.
- Hall, G. S. (1904). *Adolescence: Its psychology and its relations to physiology, anthropology, sociology, sex, crime, religion, and education*. New York: D. Appleton and Company.
- Harrell, F. E., Dupont, Ch. et al. (2015). Hmisc: Harrell Miscellaneous (Version 3.17-0). Website: <http://CRAN.R-project.org/package=Hmisc>
- Hood, R. W., Hill, P. C., & Spilka, B. (2009). *The psychology of religion: An empirical approach* (4th ed.). New York: Guilford Press.
- Hood, R. W., Spilka, B., Hunsberger, B., & Gorsuch, R. L. (1996). *The psychology of religion: An empirical approach* (2nd ed.). New York: Guilford Press.
- Hornowska, E. (2003). *Testy psychologiczne: teoria i praktyka*. Warszawa: Wydawnictwo Naukowe „Scholar”.
- Huber, S. (2003). *Zentralität und Inhalt: Ein neues multidimensionales Messmodell der Religiosität*. Opladen: Leske und Budrich.
- Huber, S., & Huber, O. W. (2012). The Centrality of Religiosity Scale (C-15). *Religions*, 3(3), 710-724.
- Hutsebaut, D. (1980). Belief as lived relations. *Psychologia Belgica*, 20(2), 33-47.

- King, P. E. (2007). Religion and positive youth development. In R. K. Silbereisen & R. M. Lerner (Eds.), *Positive development: Linking individuals, communities and social policies* (pp. 227-242). London: Sage Publications.
- King, P. E., Ramos, J. S., & Clardy, C. E. (2013). Searching for the sacred: Religion, spirituality, and adolescent development. In K. I. Pargament, J. J. Exline, & J. W. Jones (Eds.), *APA handbook of psychology, religion, and spirituality* (vol. 1, pp. 513-528). Washington: APA
- Kohlberg, L., & Power, C. (1981). Moral development, religious thinking and the question of a seventh stage. *Zygon*, 16(3), 203-259.
- Lawshe, C. H. (1975). A quantitative approach to content validity. *Personnel Psychology*, 28(4), 563-575.
- Levenson, M. R., Aldwin, C. M., & Igarashi, H. (2013). Religious development from adolescence to middle adulthood. In R. F. Paloutzian & C. L. Park (Eds.), *Handbook of the psychology of religion and spirituality* (2nd ed.) (pp. 183-197). New York, NY: The Guilford Press.
- Lorenzo-Seva, U., & ten Berge, J. F. (2006). Tucker's congruence coefficient as a meaningful index of factor similarity. *Methodology*, 2(2), 57-64.
- Mariański, J. (2006). *Sekularyzacja i desekularyzacja w nowoczesnym świecie [Secularization and desecularization in the modern world]*. Lublin: The Catholic University of Lublin Press.
- Mariański, J. (2008). *Emigracja z Kościoła. Religijność młodzieży polskiej w warunkach zmian społecznych [Emigration from the Church. The religiosity of Polish youth in the conditions of social transformations]*. Lublin: The Catholic University of Lublin Press.
- Mariański, J. (2011). Tendencje rozwojowe w polskim katolicyzmie – diagnoza i prognoza [Developmental tendencies in Polish Catholicism – Diagnosis and prognosis]. *Teologia Praktyczna*, 12, 7-24.
- Niewiadomska, I., Bartczuk, R. P., Chwaszcz, J., Fel, S., Augustynowicz, W., Palacz-Chrisidis, A., & Wiechetek, M. (2015). Religiosity as a factor protecting against problem behaviour in adolescence. *Journal for Perspectives of Economic Political and Social Integration*, 21(1-2), 63-90.
- Nowosielski, M. (2008). *Korelaty kryzysu religijnego [Correlates of religious crisis]*. Warsaw, PL: Cardinal Stefan Wyszyński University Press.
- Nowosielski, M., & Bartczuk, R. P. (2011). Skala Kryzysu Religijnego W. Prężyny [Religious Crisis Scale by W. Prężyna]. In M. Jarosz (Ed.), *Psychologiczny pomiar religijności [Psychological measurement of religiosity]* (pp. 73-88). Lublin: Scientific Society of the Catholic University of Lublin
- Nowosielski, M., & Bartczuk, R. P. (2015). Religijność w procesie przemian – koncepcja dekonwersji H. Streiba [Religiosity in the process of transformation – H. Streib's theory of deconversion]. *Studia Psychologica*, 15(2), 5-23
- Oleszkiewicz, A., & Senejko, A. (2011). Dorastanie [Adolescence]. In J. Trempała (Ed.), *Psychologia rozwoju człowieka [The psychology of human development]* (pp. 259-286). Warsaw, PL: Wydawnictwo Naukowe PWN.
- Oleś, P. K. (1991). Value crisis: Measurement and personality correlates. *Polish Psychological Bulletin*, 22(1), 53-64.
- Oleś, P. K. (2002). Z badań nad wartościami i wartościowaniem: niektóre kwestie metodologiczne [Research on values and evaluation: Selected methodological issues]. *Roczniki Psychologiczne*, 5, 53-75.

- Paloutzian, R. F. (2005). Religious conversion and spiritual transformation: A meaning- system analysis. In R. F. Paloutzian & C. L. Park (Eds.), *Handbook of the psychology of religion and spirituality* (pp. 331-347). New York: The Guilford Press.
- Paloutzian, R. F., Murken, S., Streib, H., & Rößler-Namini, S. (2013). Conversion, deconversion, and spiritual transformation: A multilevel interdisciplinary view. In R. F. Paloutzian & C. L. Park (Eds.), *Handbook of the psychology of religion and spirituality* (2nd ed.) (pp. 399-421). New York: The Guilford Press.
- Plużek, Z. (2002). *Psychologia pastoralna [Pastoral psychology]*. Cracow, PL: Instytut Teologiczny Księży Misjonarzy.
- Potocki, A. (2014). Problem polskiej wiary. Uwagi socjologa [The problem of Polish faith: A sociologist's remarks]. *Colloquia Theologica Ottoniana*, 1, 35-58.
- Pratt, J. B. (1920). *The religious consciousness a psychological study*. New York: Macmillan.
- R Core Team (2014). *R: A language and environment for statistical computing*. R Foundation for Statistical Computing, Vienna, Austria. Retrieved from: <http://www.R-project.org/>
- Regnerus, M. D., & Uecker, J. D. (2006). Finding faith, losing faith: The prevalence and context of religious transformations during adolescence. *Review of Religious Research*, 47(3), 217-237.
- Revelle, W., & Zinbarg, R. E. (2009). Coefficients alpha, beta, omega, and the glb: Comments on Sijtsma. *Psychometrika*, 74(1), 145-154.
- Rew, L., & Wong, Y. J. (2006). A systematic review of associations among religiosity/spirituality and adolescent health attitudes and behaviors. *Journal of Adolescent Health*, 38(4), 433-442.
- Rydz, E. (2012). *Tendencje rozwojowe religijności młodych dorosłych [Developmental tendencies in the religiousness of young adults]*. Lublin: The Catholic University of Lublin Press.
- Rydz, E. (2014). Development of religiousness in young adults. In K. Adamczyk & M. Wysota (Eds.), *Functioning of young adults in a changing world* (pp. 67-84). Cracow, PL: Libron.
- Rydz, E., & Zarzycka, B. (2008). Poziom religijności a poczucie spójności wewnętrznej w wieku młodzieńczym [The level of religiosity and self-consistency in adolescence]. *Psychologia Rozwojowa*, 13(4), 49-58.
- Sandage, J., & Moe, S. P. (2013). Spiritual experience: Conversion and transformation. In R. F. Paloutzian & C. L. Park (Eds.), *Handbook of the psychology of religion and spirituality* (pp. 407-421). New York: The Guilford Press.
- Schnitker, S. A., Felke, T. J., & Barrett, J. L. (2014). Longitudinal study of religious and spiritual transformation in adolescents attending young life summer camp: Assessing the epistemic, intrapsychic, and moral sociability functions of conversion. *Psychology of Religion and Spirituality*, 6(2), 83-93.
- Sijtsma, K. (2009). Reliability beyond theory and into practice. *Psychometrika*, 74(1), 169-173.
- Socha, P. (2000). Stadialny rozwój sądów moralnych w koncepcji Lawrence'a Kohlberga. Przegląd i ocena głównych tez [Stadial development of moral judgments in Lawrence Kohlberg's theory]. In P. Socha (Ed.), *Duchowy rozwój człowieka [Human spiritual development]* (pp. 145-163). Cracow, PL: Jagiellonian University Press.
- Soiński, B. (2010). *Osobowość i nawrócenie: psychologiczno-pastoralna analiza osobowości nawróconych członków zakonów i grup religijnych [Personality and conversion: Psychological and pastoral personality analysis of converted members of religious orders and groups]*. Poznań: Adam Mickiewicz University Press.
- Starbuck, E. D. (1901). *The psychology of religion: An empirical study of the growth of religious consciousness*. London: W. Scott.

- Streib, H. (2001). Faith development theory revisited: the religious styles perspective. *International Journal for the Psychology of Religion*, 11(3), 143-158.
- Streib, H. (2005). Faith development research revisited: Accounting for diversity in structure, content, and narrativity of faith. *International Journal for the Psychology of Religion*, 15(2), 99-121.
- Streib, H. (2008). More spiritual than religious: Changes in the religious field require new approaches. In H. Streib, A. Dinter, & K. Söderblom (Eds.), *Lived religion – conceptual, empirical, and practical-theological approaches. Essays in honor of Hans-Günter Heimbrock* (pp. 131-163). Leiden: Brill.
- Streib, H., & Hood, R. W. (2011). “Spirituality” as privatized experience-oriented religion: Empirical and conceptual perspectives. *Implicit Religion*, 14(4), 433-453.
- Streib, H., Hood, R. W., Keller, B., Csöff, R.-M., & Silver, C. F. (2009). *Deconversion: Qualitative and quantitative results from cross-cultural research in Germany and the United States of America*. Göttingen: Vandenhoeck und Ruprecht.
- Streib, H., & Keller, B. (2004). The variety of deconversion experiences: Contours of a concept in respect to empirical research. *Archive for the Psychology of Religion*, 26(1), 181-200. <https://doi.org/10.1163/0084672053598030>
- Streib, H., & Klein, C. (2013). Atheists, agnostics, and apostates. In K. I. Pargament, J. J. Exline, & J. W. Jones (Eds.), *APA handbook of psychology, religion, and spirituality*. Vol. 1: *Context, theory, and research* (pp. 713-728). Washington, DC: American Psychological Association.
- Śliwak, J., & Bartczuk, R. P. (2011). Skala relacji religijnych – Przeżywane relacje do Boga D. Hutsebauta [Religious Relations – Lived Relations to God Scale by D. Hutsebaut]. In M. Jarosz (Ed.), *Psychologiczny pomiar religijności [Psychological measurement of religiosity]* (pp. 171-200). Lublin: Scientific Society of the Catholic University of Lublin.
- Śliwak, J., Zarzycka, B., & Rak, R. (2011). Kryzys w wartościowaniu a relacje religijne [Value crisis and religious relations]. *Czasopismo Psychologiczne*, 17(1), 75-86.
- Velicer, W. (1976). Determining the number of components from the matrix of partial correlations. *Psychometrika*, 41(3), 321-327.
- Wallace, J. M., & Forman, T. A. (1998). Religion's role in promoting health and reducing risk among American youth. *Health Education & Behavior*, 25(6), 721-741.
- Werner, H. (1957). The concept of development from a comparative and organismic point of view. In D. B. Harris (Ed.), *The concept of development* (pp. 125-148). Minneapolis, MN: University of Minnesota Press.
- Wilczyńska, J. T., & Drwal, R. Ł. (1983). Social Desirability Questionnaire. *Polish Psychological Bulletin*, 14, 51-59.
- Wilson, F. R., Pan, W., & Schumsky, D. A. (2012). Recalculation of the critical values for Lawshe's Content Validity Ratio. *Measurement and Evaluation in Counseling and Development*, 45(3), 197-210.
- Wulff, D. M. (1999). *Psychologia religii. Klasyczna i współczesna [The psychology of religion: Classical and modern]*. Warsaw, PL: WSiP.
- Wulff, D. M. (2002). A century of conversion in American psychology of religion. In C. Henning & E. Nestler (Eds.), *Konversion: Zur Aktualität eines Jahrhunderts themas [Conversion: On the actuality of the century's theme]* (pp. 43-73). Frankfurt am Main: Peter Lang.
- Wysocka, E. (2007). Religijność młodzieży studenckiej jako wyznacznik funkcjonowania psychospołecznego. Część I. Religijność a doświadczanie kryzysu w wartościowaniu i jego wyznaczniki [The religiosity of university students as a determinant of their psychosocial

- functioning. Part I: Religiosity and the experience of value crisis as well as its determinants]. *Paedagogia Christiana*, 20(2), 55-72.
- Yonker, J. E., Schnabelrauch, Ch. A., & Dehaan, L. G. (2012). The relationship between spirituality and religiosity on psychological outcomes in adolescents and emerging adults: A meta-analytic review. *Journal of Adolescence*, 35(2), 299-314.
- Zaręba, S. (2012). *Religijność młodzieży w środowisku zurbanizowanym: Socjologiczne studium teoretyczno-empiryczne [Young people's religiosity in the urbanized environment: A theoretical and empirical sociological study]*. Warsaw, PL–Rzeszów: Pobitno Oficyna Wydawniczo-Uslugowa.
- Zarzycka, B. (2007). Skala Centralności Religijności S. Hubera [S. Huber's Centrality of Religiosity Scale]. *Roczniki Psychologiczne*, 10(1), 133-157.
- Zarzycka, B. (2009). Tradition or charisma – religiosity in Poland. In Bertelsmann-Stiftung (Ed.), *What the world believes: Analysis and commentary on the Religion Monitor 2008*. Gütersloh: Verlag Bertelsmann Stiftung.
- Zarzycka, B. (2011). Polska adaptacja Skali Centralności Religijności S. Hubera [A Polish adaptation of S. Huber's Centrality of Religiosity Scale]. In M. Jarosz (Ed.), *Psychologiczny pomiar religijności [Psychological measurement of religiosity]* (pp. 231-261). Lublin: Scientific Society of the Catholic University of Lublin.