A POLISH ADAPTATION OF JAMES CÔTÉ’S IDENTITY STAGE RESOLUTION INDEX

The article presents the outcome of work on the Polish adaptation of James Côté’s (1997) Identity Stage Resolution Index (ISRI). The participants in the study were 2,381 upper secondary school students (basic vocational schools: \( n = 272, 84\% \) women; technical upper secondary schools: \( n = 1,062, 35\% \) women; general upper secondary schools: \( n = 1,047, 58\% \) women) aged 16–19 years. Both in women and in men, and in students of the three types of schools, the questionnaire had a good factor structure and high reliability. It was also found that, in accordance with Côté’s model of identity capital, the position on both studied dimensions – adult identity and community identity integration – was related to tangible as well as intangible resources. The obtained data concerning the validity and reliability of the measure are acceptable.

Keywords: identity capital, sense of adulthood, community identity, adult identity, tangible resources, intangible resources

The dynamics of changes and the effects of development during the transition from adolescence to early adulthood have become an object of intense research activity in recent years (e.g., Arnett, 2000; Buhl & Lanz, 2007; Gurba, 2008; Oleszkowicz & Misztela, 2015). Young people more and more often postpone taking on social roles typical of adults and need more and more time to become adults also in their own eyes (Arnett, 2000; Mynarska, 2010). They also find it increasingly difficult to build a relatively stable sense of identity (Kroger, 2007). Researchers are looking for valid instruments to investigate this problem and its determinants. The aim of this article is to present the outcome of work on the Polish adaptation of James Côté’s (1997) short, two-scale questionnaire – Identity Stage Resolution Index.

IDENTITY CAPITAL MODEL

According to Côté (1996), what distinguishes contemporary, late modern (Giddens, 1990) societies of Western culture is (1) consumption orientation, being not only the basis of the functioning of economic systems but also a way to create one’s own social identity; (2) uncertainty and

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a sense of insecurity, increasing young people's sensitivity to the opinions of and acceptance from others; (3) the dominance of the prefigurative socialization model (Mead, 1970), according to which adults have little possibility of providing direct guidelines for their children to use in giving shape their lives, which means they have lost the possibility of significantly influencing the identity developed by the young generation; (4) a considerable decrease in the importance of inherited social positions and little support from public institutions. This kind of organization and functioning of late modern societies results in a situation in which the young person becomes – of necessity, as it were – an independent "architect" of his or her own development, including, above all, the form of his or her own identity.

Identity crisis resolution as seen by Côté (1997, 2002) involves the young person's integration with the community of adults. The condition of this integration is, firstly, developing a sense of already being an adult in the eyes of others and in one's own eyes – that is, a sense of adult identity (Côté, 1997, 2002), and secondly, developing a sense of having found one's own place in society and a group of people that one wants to spend one's life among (community identity; Côté, 1997, 2002). Both these dimensions are consistent with the Eriksonian tradition, in which identity crisis resolution marks the border point between adolescence and adulthood and involves achieving a sense of having found one's place in the world of adults (Erikson, 1959). Thus, the model identifies a certain point of destination, where it is possible to consider identity crisis resolved.

Both of these senses – adult identity and community identity – are treated by Côté (1997) as indicators but also as effects of using the resources that an individual possesses and acquires in the course of entering adulthood. The resources that an individual has and that he or she can use in the process of learning to become a member of the community of adults is the individual's identity capital. Identity capital resources can be divided into two groups:

1. **tangible resources**, directly observable, such as social status or belonging to various social groups (scouts, members of a sports team or an association, employees of a company); According to Côté (1996, p. 426), these resources can be treated as a kind of "passports" giving entry to natural social and institutional communities other than one's home communities;

2. **intangible resources**, or psychological characteristics such as self-esteem, self-efficacy, commitments made in various identity domains, or locus of control; their common denominator is the fact that they help individuals to understand and actively cope with obstacles as well as to recognize and take advantage of opportunities arising on the pathway to adulthood. Intangible resources constitute the foundation of an active attitude towards one's own development, making it possible to independently shape of one's own life, which is one of the demands of the modern world.

Both tangible and intangible resources are used by individuals in the process of shaping their "path" of development. While doing this task, a person acquires further identity capital resources, approaching identity consolidation and integration with the community of adults. For this reason, adult identity and community identity integration are treated as indicators of identity capital acquisition/accumulation (Côté, 1997, 2002). The more identity capital resources an individual accumulates, the closer he or she can get to identity crisis resolution in these two domains.

**Identity Stage Resolution Index – Characteristics of the Measure**

Identity Stage Resolution Index (ISRI) was developed in order to test the assumptions postulated in the identity capital model (Côté, 1996, 1997, 2002). According to that model, identity capital resources are related to individual differences in terms of the course taken by the process of entering adulthood, which is reflected in...
the development of the sense of adult identity and community identity.

Identity Stage Resolution Index is a self-report measure that consists of seven items making up two scales: (1) Adult Identity Resolution Scale (the sense of adulthood; Côté, 1997; Luyckx, Schwartz, Goossens, & Pollock, 2008; Brzezińska & Piotrowski, 2010a) defined as the degree to which an individual has a subjective sense of being an adult (three items, e.g., *I consider myself to be an adult*), and (2) Community Identity Resolution Scale, defined as the degree to which the participant has a subjective sense of having already found their own place in the adult social world (four items, e.g., *I have found a community in which to live for the remainder of my life*).

The results presented by Côté (1997) for the English-language version as well as by Luyckx, De Witte, and Goossens (2011) for the Dutch-language version confirmed the two-factor structure of the measure. In studies conducted using the English version, the values of Cronbach’s alpha reliability coefficient were as follows: from .70 to .78 for Adult Identity Resolution Scale and from .64 to .72 for Community Identity Resolution Scale (Côté, 2002; Côté & Schwartz, 2002). Similar values were obtained for the Dutch version: from .69 to .83 for the Adult Identity Resolution Scale and from .66 to .69 for the Community Identity Resolution Scale (Luyckx, De Witte, & Goossens, 2011; Luyckx, Klimstra, Schwartz, & Duriez, 2013; Luyckx, Schwartz, Goossens, & Pollock 2008). In both of these versions, ISRI turned out to be a factorially valid and reliable instrument.

In Polish studies, the entire measure has not been used so far. To date, the results of two studies have been published, with people in their early adulthood as participants, in which only the Adult Identity Resolution Scale was used (Brzezińska & Piotrowski, 2010a; Piotrowski, Brzezińska, & Luyckx, 2015, in preparation; Piotrowski, Brzezińska, & Pietrzak, 2013). Cronbach’s alpha reliability coefficient in these studies was .81 and .88, respectively.

**THE RESULTS OF STUDIES USING IDENTITY STAGE RESOLUTION INDEX**

In the first study using the scale (Côté, 1997), the participants were students who were examined twice: in the first year (mean age about 19 years) and in the third year of their studies. The results revealed that a significant factor related to identity capital accumulation was gender. Although in the first measurement women exhibited a lower sense of adult identity, their result on that scale increased over the next two years, and in the third year of studies the results of men and women were similar. It was also observed that women receiving the highest financial support from their parents (one of the indicators of tangible capital) had a lower sense of adult identity than the women who received little financial support. This was interpreted as a case of the moratorium effect – namely, as well-off female students (significant results were obtained only among women) taking advantage of the possibility of postponing their entry into adulthood, also in the psychological sense.

Both in the first and in the third year, women scored lower than men on community identity integration. Students of both sexes receiving low financial support from their parents exhibited higher community identity integration in both measurements compared to the students who could rely on high financial support from their family. Moreover, in the group of people receiving low financial support a significant increase in scores on the Community Identity Resolution Scale was observed during university education. This observation may argue a positive influence of the academic community on the sense of community identity integration among people in a worse financial situation.

It also turned out that, whereas personality traits that were indicators of intangible capital (a general “agentic personality” indicator was used in the study, composed of six variables: self-esteem, having a purpose in life, self-actualization, internal locus of control, ego strength,
and the strength of identity commitments in the ideological domain) constituted significant predictors of adult identity and community identity at the beginning of studies, the change in the intensity of these dimensions over the next two years was more strongly related to the social status of the family of origin and to gender.

The participants in the study described above were examined again 6–7 years after the completion of the second measurement (Côté, 2002). It turned out that the indicators of “agentic personality” measured in the first year of studies were significant predictors of the sense of adulthood and community identity integration. Significant associations were still observed between the changes on these dimensions and the socio-economic status of the family of origin as well as age – confirming the hypothesis that identity capital accumulation is an effect of the combined influence of tangible and intangible resources, which interact with each other in the period of entering adulthood.

ISRI was also used in studies aimed at assessing the relations between identity capital accumulation and identity status as defined by Marcia (1966, 1980). Côté and Schwartz (2002) demonstrated that the sense of adulthood and community identity in university students were positively related to the identity achievement status and negatively to identity diffusion and moratorium. These observations were partly confirmed in studies whose participants had already completed their education and were employed, although – somewhat unexpectedly in this case – high community identity integration (but not high sense of adult identity) was also found in individuals with the carefree diffusion status, characterized by a low level of commitment and a lack of engagement in exploration, and who at the same time experienced no subjective difficulties in identity development (Luyckx, Klimstra, Schwartz, & Duriez, 2013).

The sense of adulthood also turned out to be positively associated with having taken up employment, with the sense of coherence, as well as with commitment making and identification with identity commitments (Luyckx, Schwartz, Goossens, & Pollock, 2008; Morsünbül, 2014). These studies show that the commitments made by individuals in various domains are closely related to identity capital accumulation (Côté & Schwartz, 2002). The identity achievement status in various identity domains may be a point of departure for an individual to develop the sense of being a member of the community of adults (Luyckx, Schwartz, Goossens, & Pollock, 2008). Data concerning the relations of community identity and adult identity with identity dimensions and identity statuses confirm the assumptions of the model. According to Côté (2002), “investing” in proactive exploration of diverse alternatives as well as making identity commitments in various domains helps in coping with the everyday challenges young people face, thereby contributing to the accumulation of further identity capital resources and making for a better use of those already possessed, which translates into an increase in the sense of adult identity and a sense of community identity integration.

In Polish studies, only the Adult Identity Resolution Scale has been used so far, without the other part of the measure being applied. Brzezińska and Piotrowski (2010a) observed that the sense of adult identity in people aged from 20 to 40 years was positively related to age. Moreover, the highest sense of adult identity was found in participants with identity achievement or foreclosure status (both statuses being characterized by strong commitments), and the lowest – in participants with the moratorium status. However, people with the identity diffusion status were not taken into account in the study due to their small number in the sample. In another study, whose participants were individuals aged from 18 to 30 years (Piotrowski, Brzezińska, & Pietrzak, 2013; Piotrowski, Brzezińska, & Luyckx, 2016, in preparation) the authors found that adult identity was positively related to both psychosocial maturity (which can be identified with intangible resources here), and to taking on adult social roles.
It also turned out (Piotrowski, Brzezińska, & Pietrzak, 2013) that people aged 19–20 characterized by high psychosocial maturity but at the same time by a small number of adult roles (e.g., having a partner, employment, having left one’s family home) had a stronger sense of adulthood than people aged around 26 who did a relatively high number of adult roles but exhibited low psychosocial maturity. This supports the importance of identity capital resources and suggests that in early adulthood adult identity is not necessarily strongly related to biological age.

OBJECTIVES AND HYPOTHESES

The aim of the study was to assess the factor structure and reliability of Identity Stage Resolution Index in adolescence as well as the strength of the associations of both dimensions – adult identity and community identity – with the indicators of tangible and intangible identity capital resources.

The following hypotheses were formulated:

1. A two-factor structure of the measure will manifest itself in the study sample, confirming the factorial validity of the Polish version (Côté, 1997; Luyckx, De Witte, & Goossens, 2011);
2. Both subscales of ISRI (Adult Identity Resolution and Community Identity Resolution) will have at least an acceptable reliability;
3. The two subscales of ISRI will be positively and moderately correlated with each other (Schwartz, 2007); 
4. A stronger sense of adult identity and a stronger sense of community identity will be correlated with higher indices of identity capital resources, both tangible and intangible; the correlations will be stronger in the case of intangible capital indicators (Côté, 1997).

The confirmation of the hypotheses would justify the conclusion about the construct validity of the Polish version of the measure.

METHOD

The Preparatory Stage

The linguistic adaptation of Identity Stage Resolution Index included independent translation of the scale into Polish by two psychologists. Both versions were then merged following a discussion between the translators. In the next step, back translation was done by a person for whom English was the first language. That version was compared with the original one. As a result of a discussion between the translators and the first author of this publication, the final version of items was established. This final form of the measure was used in the present study. With regard to the Adult Identity Resolution Scale, already used in previous studies in Poland, this procedure was performed in 2010, and with regard to the Community Identity Resolution Scale – in 2014. In the same year, the whole measure was used in research on identity formation in adolescence (e.g., Brzezińska, Czub, & Piotrowski, 2014). More detailed data concerning the results obtained using the Polish version of the measure are presented in the paper by Piotrowski (2015).

Participants and Procedure

The participants were 2,381 students attending three different types of upper secondary schools: (1) basic vocational school: a three-year school that prepares young people for a trade but does not make them eligible to apply for admission to a university; they can continue their education in settings for adults (n = 272; 84% women), (2) technical upper secondary school: a four-year school that prepares its students for a trade and at the same time provides general education, making them eligible to apply for admission to a university after passing the school-leaving examination (Polish matura) (n = 1,062; 35% women), (3) general upper secondary school: a three-year school focused on general education, whose students usually pursue further education at universities after pas-
sing the school-leaving examination \( (n = 1,047; 58\% \text{ women}) \). The sample consisted of students of the first grade (age: \( M = 16.05, SD = 0.40 \)), the second grade (age: \( M = 17.03, SD = 0.44 \)), and the third grade (age: \( M = 18.02, SD = 0.51 \)), and in the case of technical upper secondary school – also the fourth grade (age: \( M = 18.96, SD = 0.39 \)). Age differences between students of different types of schools were not significant. Of all the participants, 34\% of students lived in the countryside, 24\% lived in towns of up to 100,000 inhabitants, and 42\% lived in cities of more than 100,000 inhabitants.

The study was carried out on a group basis, in the classroom during lessons, using the paper-and-pencil method, by means of a set of instruments that included ISRI. The participants were informed about the purpose of the study as well as about the anonymous and voluntary character of participation. In the case of underage participants, parental consent was obtained. The measurement was carried out by trained researchers.

**Measures**

**Identity capital accumulation.** Identity capital accumulation was measured using the *Identity Stage Resolution Index* (ISRI). Each item was rated on a 5-point Likert scale, from 1 (*not at all true*) to 5 (*entirely true*).

**Tangible identity capital resources.** Several indicators of tangible identity capital resources were measured in the study (Côté, 1996, 1997). The following were treated as indicators of social capital, connected with belonging to specific social groups: (1) participants’ engagement in voluntary service (*Have you ever worked as a volunteer?*; 0 – no, 1 – yes, at least once), (2) the fact of having a partner at the time of the study (*Do you have a partner at present?*; 0 – no, 1 – yes), and (3) having professional experience (*0 – has not worked so far, 1 – has got professional experience*). The socioeconomic status of the family of origin was operationalized as: (4) mother’s and father’s education (elementary, vocational, secondary, higher), and (5) subjective assessment of the financial situation (*To what extent do you consider your material needs to be satisfied?*; Rating scale from 1 – *acutely low* to 5 – *very high*).

**Intangible identity capital resources.** In order to assess intangible identity capital resources, we used two questionnaires. The first one was the *Dimensions of Identity Development Scale* (DIDS; Brzezińska & Piotrowski, 2010b; Luyckx, Schwartz, Berzonsky et al., 2008), making it possible to assess exploration and commitment in the domain of the general future plans. The measure serves to assess the individual’s position on five identity dimensions: (1) commitment making: the extent to which the individual has made choices and commitments in matters of importance to identity development (*e.g.*, *I have decided on the direction I want to follow in my life*), (2) identification with commitment: the degree to which the individual identifies with the choices and commitments made (*e.g.*, *My plans for the future match with my true interests and values*), (3) exploration in breadth: the extent to which the individual is looking for various options regarding his or her goals, values, and beliefs (*e.g.*, *I think actively about the direction I want to take in my life*), (4) exploration in depth: in-depth analysis of the choices and commitments already made in order to determine the degree to which they meet personal standards (*e.g.*, *I actively think about if the future plans I strive for, correspond to what I really want*), (5) ruminative exploration: the intensity of the individual’s fears and his or her experience of problems connected with involvement in domains of importance to identity development (*e.g.*, *I am doubtful about what I really want to achieve in life*). The instrument consists of 25 items (five per scale). Each item was rated on a scale from 1 (*strongly disagree*) to 6 (*strongly agree*); the higher the score, the higher the intensity of exploration or commitment, respectively. The values of Cronbach’s alpha coefficient for particular scales in the entire sample were the following, respectively: .91, .84, .76, .70, and .80.
The other instrument made it possible to measure the participants’ tendency to feel self-awareness emotions: shame and the sense of guilt, whose relationship with numerous spheres of functioning is well documented (Orth, Robins, & Soto, 2010). The tendency to experience these two emotions begins as early as childhood (Elison, 2005), and their high intensity is the source of many difficulties in psychological and social functioning. To assess the tendency to experience shame and guilt, we used the Personal Feelings Questionnaire-2 (PFQ-2; Harder & Zalma, 1990) as adapted into Polish (Czub, 2012). A person experiencing intense shame may feel helpless, paralyzed, furious, embarrassed, or humiliated. The experience of shame is also accompanied by the feeling that there is a danger of being psychologically rejected by stronger “others,” ready to sneer or mock. The sense of guilt involves perceiving oneself as having control over the behavior that led to feeling guilty. A person experiencing a sense of guilt feels remorse and regrets what he or she has done. The negative relationship of both these types of emotions with identity formation has been shown in previous studies (Brzezińska, Czub, & Piotrowski, 2014; Piotrowski, 2013). The Polish version of the measure consists of 19 items containing the names of various emotions (shame – 7 items, e.g., feeling humiliated, embarrassment; sense of guilt – 6 items, e.g., remorse, regret; 6 masking items, e.g., enjoyment), and the participants are asked how often they experience these emotional states, from 1 – Never, to 5 – Continuously or almost continuously. Cronbach’s alpha was .86 for shame and .82 for guilt.

RESULTS

The Factor Structure and Reliability of the Polish Adaptation of Identity Stage Resolution Index

In order to assess the psychometric parameters of the Polish adaptation of the measure, we performed confirmatory factor analysis using AMOS 22 software (Arbuckle, 2013). In the first step, we prepared a model in which all the items of Index loaded on one factor (one-factor model), and in the second step we developed a model in which all the items of the questionnaire were assigned to original factors (two-factor model). The models were tested separately in groups of students of three different types of schools and separately in groups of men and women. The parameters of the models were assessed using maximum likelihood estimation (MLE). The errors of measurement concerning particular items were treated as independent of one another. In order to assess model fit, we applied two commonly used indices (Hu & Bentler, 1999): (1) Comparative Fit Index (CFI), whose value should be higher than .90, and ideally – higher than .95, and (2) Root Mean Square Error of Approximation (RMSEA), whose value should not exceed .08.

In every group the one-factor model showed a bad fit to the data (CFI in various groups ranged from .75 to .84; RMSEA in different groups ranged from .13 to .17). The parameters of the two-factor structure were acceptable (Table 1), confirming the two-factor structure of the measure in each of the analyzed groups. The values of factor loadings in the analyzed models ranged between .27 and .85. In the whole sample, these two factors explained 58% of variance.

The reliability of the scales (Table 1), measured as Cronbach’s alpha, was from .72 to .74 for different groups in the case of the Adult Identity Resolution Scale and from .67 to .70 in the case of Community Identity Resolution Scale.

Identity Capital Accumulation and Identity Capital Resources

Table 2 presents the values of correlations between the two indicators of identity capital accumulation (adult identity and community identity) and the two types of resources: tangible and intangible. Because there was a very strong positive correlation ($r = .91$) between age and the
### Table 1. Fit Indices and Reliability of the Polish Adaptation of Identity Stage Resolution Index

<table>
<thead>
<tr>
<th></th>
<th>Fit indices of the two-factor model</th>
<th>Cronbach’s alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CFI</td>
<td>RMSEA</td>
</tr>
<tr>
<td><strong>School type</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic vocational school</td>
<td>.99</td>
<td>.04</td>
</tr>
<tr>
<td>(n = 272)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical upper secondary school</td>
<td>.97</td>
<td>.06</td>
</tr>
<tr>
<td>(n = 1,062)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General upper secondary school</td>
<td>.97</td>
<td>.06</td>
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<tr>
<td>(n = 1,047)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women (n = 1,223)</td>
<td>.96</td>
<td>.07</td>
</tr>
<tr>
<td>Men (n = 1,184)</td>
<td>.97</td>
<td>.06</td>
</tr>
</tbody>
</table>

### Table 2. Correlations Between the Dimensions of Identity Stage Resolution Index and the Indicators of Tangible and Intangible Capital

<table>
<thead>
<tr>
<th></th>
<th>Adult Identity Resolution Scale</th>
<th>Community Identity Resolution Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tangible capital indicators</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade^a</td>
<td>.20*</td>
<td>.06</td>
</tr>
<tr>
<td>Voluntary service</td>
<td>.04</td>
<td>.01</td>
</tr>
<tr>
<td>Relationship</td>
<td>.12*</td>
<td>.19*</td>
</tr>
<tr>
<td>Professional experience</td>
<td>.13*</td>
<td>.10*</td>
</tr>
<tr>
<td>Economic situation</td>
<td>.05</td>
<td>.15*</td>
</tr>
<tr>
<td>Mother’s education^a</td>
<td>-.03</td>
<td>.01</td>
</tr>
<tr>
<td>Father’s education^a</td>
<td>-.04</td>
<td>.03</td>
</tr>
<tr>
<td><strong>Intangible capital indicators</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exploration in breadth</td>
<td>.02</td>
<td>.03</td>
</tr>
<tr>
<td>Exploration in depth</td>
<td>.09*</td>
<td>.17*</td>
</tr>
<tr>
<td>Ruminative exploration</td>
<td>-.20*</td>
<td>-.44*</td>
</tr>
<tr>
<td>Commitment making</td>
<td>.26*</td>
<td>.53*</td>
</tr>
<tr>
<td>Identification with commitment</td>
<td>.25*</td>
<td>.49*</td>
</tr>
<tr>
<td>Tendency to feel shame</td>
<td>-.16*</td>
<td>-.30*</td>
</tr>
<tr>
<td>Tendency to feel a sense of guilt</td>
<td>-.12*</td>
<td>-.18*</td>
</tr>
</tbody>
</table>

^p < .001 (due to the large sample size, only correlations exceeding the significance level of .001 were treated as significant).
^a = Spearman’s rho correlation coefficient was used.
grade students attended, it was decided that only the “grade” variable (1, 2, 3, 4) would be taken into account in further analyses (Piotrowski, 2015). Still, we must remember that it is at the same time an indicator of the participants’ age.

Most of the relationships observed were quite weak. Adult identity correlated moderately with community identity integration ($r = .43, R^2 = 18\%$). We observed positive, though weak, associations of adult identity with age (grade; $R^2 = 4\%$), the fact of having a partner at the time of the study ($R^2 = 1\%$), and having professional experience ($R^2 = 1\%$). Adult identity was also positively related with commitment making ($R^2 = 7\%$) and identification with commitment ($R^2 = 6\%$) and negatively with ruminative exploration ($R^2 = 4\%$), tendency to feel shame ($R^2 = 3\%$), and tendency to feel a sense of guilt ($R^2 = 1\%$).

In the case of the Community Identity scale the associations were similar, although nearly all correlation coefficients were twice as high as in the case of the Adult Identity scale. Moreover, community identity integration correlated positively, though weakly, with self-assessed financial situation ($R^2 = 2\%$), but it did not correlate with participants’ age.

**DISCUSSION**

The aim of the study was to carry out a preliminary assessment of the factor structure and reliability of the Polish version of Identity Stage Resolution Index (ISRI; Côté, 1997) – and to analyze the correlations of the results obtained using this measure with the tangible and intangible identity capital resources possessed by Polish adolescents.

In the case of both the factorial validity and the reliability of the measure, the results obtained were similar to those presented by the author of the scale (Côté, 1997, 2002; Côté & Schwartz, 2002) and by other scholars (Luyckx, De Witte, & Goossens, 2011; Luyckx, Klimstra, Schwartz, & Duriez, 2013; Luyckx, Schwartz, Goossens, & Pollock 2008). In both cases, the parameters turned out to be acceptable. The Polish version of Index has a two-factor structure, analogous to the one assumed by the author. In the studied sample of adolescents, Index was also characterized by fairly high reliability in the subgroups of students of different kinds of upper secondary schools as well as among women and men. These data argue that the Polish adaptation of the instrument is reliable and factorially valid.

As predicted, the results obtained using the Polish version of the ISRI were associated with the indicators of identity capital resources, both tangible and intangible. Just like in Côté’s (1997) study, stronger associations were observed with regard to intangible resources (psychological characteristics).

In the case of both dimensions of ISRI we observed positive, though weak, associations with having a partner at the time of the study and with having professional experience. These are two important objective indicators of adulthood (Hogan & Astone, 1986), which are also related to other resources, such as better financial situation and the possibility of receiving social support. The significance of taking on these social roles (employee and partner) to identity development has been shown in other studies too (Piotrowski, Brzezińska, & Luyckx, 2016, in preparation; Shanahan, Porfeli, Mortimer, & Erickson, 2005). The results presented here suggest that these may also be significant correlates of integration with the community of adults in an individual entering adulthood.

In the case of adult identity, a significant positive association with adolescents’ age was observed. Similar results were obtained in the case of people in their early adulthood (Brzezińska & Piotrowski, 2010a; Côté, 1997). This suggests that, regardless of possessing smaller or larger identity capital resources, biological age may remain a significant determinant of an individual’s subjective sense of adulthood (see also Piotrowski, 2015).
As regards community identity integration, it turned out to be positively related to the students' financial situation. The better that situation was, the higher was the level of adolescents' belief that they had found their place in life. In other Polish studies (Brzezińska, Piotrowski et al., 2010), researchers found that better financial situation was related to stronger identity commitments, which is also consistent with the above observations and suggests that a better financial situation of Polish adolescents and young adults is associated with identity crisis resolution. Côté (1997) obtained a different result in a similar case, to the effect that better financial situation was related to moratorium orientation and lower community identity integration. This difference may stem from cultural factors (e.g., the importance of financial resources in different cultures and the ways of using them) or from methodological ones. What was measured in the research presented here was the subjectively perceived satisfaction of material needs, not the objective amount of financial support received from parents, as was the case in the study conducted by Côté (1997). This may be the cause behind the different results obtained in the Polish studies. The sense of having your material needs largely satisfied may translate into a sense that the “place” you are in in your life is appropriate for you, regardless of your objective assets. This, however, is a conclusion that requires verification in further studies.

Just like in Côté's research (1997), the indicators of identity capital accumulation were more clearly associated with intangible capital indicators. As expected, adult identity and the sense of community identity integration were higher when the participants had already made identity commitments concerning the shape of their future (commitment making), and when they identified with those commitments strongly (identification with commitment), but also when they actively engaged in the exploration of their commitments (exploration in depth). Adult identity and community identity integration also increased with the decreasing amount of difficulties experienced in building one's own identity (ruminative exploration). According to the assumptions of the identity capital model, the sense of identity helps achieve goals and cope with the challenges of everyday life, constituting an important resource and supporting the acquisition of further identity resources. The obtained results confirm that making commitments in various domains is reflected in the dimensions of adult identity and community identity (Côté & Schwartz, 2002; Luyckx, Schwartz, Goossens, & Pollock, 2008).

Also the participants' tendency to experience shame and guilt, whose negative influence on adjustment has been demonstrated in some studies (Averill, Diefenbach, Stanley, Breckenridge, & Lusby, 2002; Brzezińska, Czub, & Piotrowski, 2014; Harder & Zalma, 1990; Piotrowski, 2013), was negatively related both to adult identity and to community integration. Put together, these results show that the dimensions measured with the Polish version of the ISRI are related to the dimensions of the quality of adolescents' functioning. The greater intangible resources the participants possessed – in terms of position on the diffusion–achievement dimension in the domain examined here as well as in terms of emotional functioning – the higher they scored on the dimensions of identity capital accumulation, which also attests the construct validity of this measure.

It is worth noting that both dimensions measured using ISRI were weakly associated with most indicators of identity capital resources. The only exception was the fairly strong relations between community identity and the dimensions of identity commitments (commitment making, identification with commitment, as well as an inverse relationship with ruminative exploration), which confirms the earlier observation concerning the fairly close relationship between these two dimensions (Côté & Schwartz, 2002). In Côté's study (1997) these relationships were similar, especially in the case of tangible capital indica-
tors. Perhaps these domains are simply independent of each other to a considerable degree. It is also possible that some factors moderate the relations of tangible capital with adult identity and community identity integration, which the results obtained by Côté (1997) as well as by Piotrowski, Brzezińska, and Pietrzak (2013) partly confirm.

CONCLUSION

Identity Stage Resolution Index (ISRI) is a short and easy-to-use measure. The preliminary data concerning psychometric properties of the Polish adaptation seem to be promising, but further assessment of the instrument’s validity is necessary. According to Côté (1996, 1997), the period in life that is the most conducive to identity capital accumulation is early adulthood. It seems that it is research conducted at that particular stage of life that should particularly enrich data concerning the value of the Polish adaptation of this measure. Nevertheless, also data obtained in the present study (see also Piotrowski, 2015) suggest that this stage of life should be explored further within the identity capital model.

Using the identity capital model in research on identity may bring a number of benefits, mainly in the form of integration of the sociological and psychological approaches to the determinants of identity (Côté & Schwartz, 2002). Côté’s research (2002) shows that the development of adult identity and the sense of integration with the community of adults may take a different course in different groups – for instance, among women and men or among people differing in terms of financial situation. Similar conclusions follow from the data presented in the article by Piotrowski (2015) concerning the educational context. Additionally, as shown by Côté (2002), people may differ in the strategies they use for identity capital accumulation. Using ISRI in longitudinal studies will be helpful in expanding the knowledge on this issue.

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