

EFFECTS OF THE EDUCATIONISTS' IMPLICIT THEORIES OF CREATIVITY ON ITS EVALUATION BY MEANS OF THE IDIOSYNCRATIC CREATIVITY CONTENTS CONSTELLATIONS

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Abstract

Behaviorally operationalized creativity in children and its validity in the educational psychologists', students' and teachers' ratings, while taking into account the effects of their implicit theories of creativity, were assessed in this study. The initial pool of behaviors displayed by children was rated by nine educational psychologists on prototypicality for creativity. The psychology students rated whether behaviors were representative of artistic, scientific or everyday creativity. Based on the rated creativity, the behaviors were divided into quintiles and arranged into 64 behavior groups. Three groups of students from the Faculty of Education ($n = 147$) rated all the behavior groups on creativity, from low to high. The instructions given to the raters differed; the first student group rated the behavior groups labeled as Children, the second student group rated the behavior groups labeled as Girls and the third group as Boys. The primary school teachers ($n = 18$) rated the same behavior groups labeled as Pupils. The results displayed the convergence of the educational psychologists', the teachers' and the students' ratings of the creativity of behavior groups ($r \geq .9$), with more weight in implicit theories of creativity given to the arts. The research findings are discussed regarding the ecological validity of creativity operationalization and measurement as a set of behaviors of predefined characteristics in the educational setting.

Key words: creativity in children, implicit theories, domain specificity, art bias

INTRODUCTION

The construct of creativity is usually defined as the creation of an idea or a product that is original, valuable and useful in a given social context, and as the result of the combined effects of personality, social, cultural, motivational factors and ecological conditions, including chance (Amabile, 1996; Sternberg & Lubart, 1991).

When creativity is measured as a set of behaviors and accomplishments, analyses show that it can be divided into three broad but not completely distinct domains called: (a) everyday, (b) scientific (intellectual, mathematical, or technical), and (c) artistic (emotional, expressive or performing) creativity (Carson, Peterson & Higgins, 2005; Feist, 1998; Milgram, 2003; Runco & Bahleda, 1986; Simonton, 2003). This implies the existence of partial domain-specificity of creativity (Baer, 1998; Han, 2003; Milgram & Livne, 2005; Runco & Bahleda, 1986; Silvia, Kaufman & Pretz, 2009), with an over-arching general factor and more specific thematic areas of creative performance (Kaufman, Cole & Baer, 2009).

Creativity in this study is defined as the: (a) observable, manifest, socially acceptable children's behavior consensually described as creative in a given social context, (b) result of the interaction of abilities, knowledge, traits, task commitment and social influences, (c) process at the end of which a child can potentially produce an observable original product.

What is observed as creative is influenced by the implicit theories of creativity. Implicit theories act as prototypes against which behavior is compared, and they may be involved whenever an individual makes a decision about his or her behavior or the behavior of another (Ramos & Puccio, 2014; Runco, 1999). What is considered creative in children is of the highest importance because of the Pygmalion effect, in other words, the idea that a teachers' beliefs may influence children's creativity (e.g., Beghetto, 2008; Saracho, 2012). Kaufman & Baer (2004) found that among university students, most of whom were young women studying to become primary school teachers, implicit theories on creativity were closely aligned with creativity in arts and crafts, slightly less associated with creativity in communication, and almost non-related to creativity in math or science, which is referred to as the "Art Bias" (e.g., Glăveanu, 2014). In this way, the definition of creativity, behavioral operationalization of creativity, and implicit theories are closely related.

Close relationships between creativity, playfulness and the arts in children were noted by Vygotsky (2004), who stated that the primary creative works of children are syncretic, involving the creation in which individual types of art are still not separated or specialized. Root-Bernstein & Root-Bernstein (2004) provide evidence that the most creative scientists not only have the psychological profiles of artists, but more often than not *are* artists. Accordingly, the recognized validity of syncretism in and for creativity can be applied to all creative behavior. Creative behaviors that children and adolescents display, individual differences in their behavior choice and syncretism, can be merged into a new term – Idiosyncratic Creativity Contents Constellation (ICCC). Idiosyncratic, but not random, creative behaviors that children decide to participate in can be seen as unique constellations of contents, qualitatively differing and serving as a possible explanation for the interindividual differences in creative accomplishments.

This study aims to explore whether creativity is subject to operationalization and measurement within behavioral groups of a priori known characteristics, as well as provide evidence on how the implicit theories shared by the educational staff (students of teacher studies, teachers and educational psychologists) affect their assessments of who and why, as well as to what extent, is regarded as creative.

METHOD

Participants

The participants in this study were nine educational psychologists (age range: 22–65; eight women and one man) employed in preschool, primary or secondary school, 31 female graduate students of psychology (age range: 22–28, with an average of 23 years), 147 female students of third year of teacher studies (age range: 22–28, with an average of 21 years), and 18 female primary school teachers in their first year of teaching (24 years on average). The participants were all educated, middle class, and Caucasian.

Table 1. Summary of psychometric properties of the study variables

Measures and participants	<i>n</i>	<i>M</i>	<i>SD</i>	<i>α</i>	ICC ^b	Range		
						Potential	Actual	Skew
Creativity ratings								
Educational psychologists	9	3.41 ^a	1.68 ^a	0.96	0.66	0–6	0.07–5.81	–0.65
Creativity domain ratings								
Students of psychology	31	–	–	0.98	0.60	1, 2, 3	1, 2, 3 ^c	–
Creativity of behavior group ratings								
Students of teacher studies								
Children	39	5.26	0.89	0.97	0.36	1–7	2.69–6.49	–1.20
Boys	54	4.88	1.00	0.98	0.38	1–7	2.57–6.50	–0.74
Girls	54	4.68	1.08	0.98	0.44	1–7	2.44–6.41	–0.65
Primary school teachers								
Pupils	18	4.81	1.45	0.98	0.64	1–7	1.78–6.83	–0.64

Note. ^aAveraged sum of creativity of the individual behaviors in the behavior groups; criterion measure. ^bIntraclass correlation coefficient, the absolute agreement of raters, single measures. ^cPercentage of ratings ($\geq 70\%$) was used to determine if the behavior was dominantly rated as belonging to the Arts (65), the Sciences (46), or Everyday creativity (35).

Measurements and procedures

The participants gave their written consent and rated the previously formulated behaviors that children and adolescents display. These behaviors were collected throughout the author's several years of research on measuring traits in children (i.e., by means of The Act Frequency Approach by Buss & Craik, 1983), and were found to be a representative pool of behaviors, ranging from, theoretically, low to high creativity (e.g., *I watch TV; I surf the Internet; to I think up new experiments; I do new choreographies*, etc.). This initial pool of behaviors was collected over several years among 671 children (age range: 8–15 years) and represented the measuring instrument in this study.

Criterion measure. The psychologists had the behaviors written on 10 × 5 cm laminated cards, individually presented and reshuffled after each psychologist's rating. Their task was to place each behavior (313) into one of the seven piles which represented *low* to *high* creativity. Based on the high level of agreement among the psychologists ($\alpha = .96$), the behaviors were sorted from low to high creativity and divided into quintiles. Within the quintiles, the individual behaviors were classified into 64 behavior groups. The behavior groups consisted of roughly five behaviors, contingent to one another in the acquired average creativity rating. In this way, from the first to the fifth quintile, 13, 13, 13, 13, and 12 behavior groups were formed, representing the descriptions of 64 fictional "children" to be used in further study. For example, one of the thirteen behavior groups in the first quintile included behaviors: [*I am bored; I watch TV; I fish; I jump rope; I roller-skate*]. One of the behavior groups in the fifth quintile included behaviors: [*I write novels; I write short stories; I compose vocal music (music which is sung); I think up and make mathematical puzzles, math games and logic problems; I devise ways on how to accelerate and facilitate solving mathematical problems (e.g., I devise new shortcuts in computation, etc.)*]. No behaviors were repeated. Within quintiles, behaviors were distributed from lower to higher creativity. Averaged as a group over different groups of raters, individual behavior groups represented an average creativity rating of behaviors belonging to that quintile.

The influence of implicit theories on creativity ratings. For the student and teacher participants, 64 behavior groups were shuffled in such a way that each of the participants received a pre-designed questionnaire containing the behavior groups listed in different order. The psychologists and psychology students participated in 2012; three student groups were independent, and participated in 2013; and the teachers participated in 2014. The creativity ratings agreeing with at least a minimum criterion level (≥ 2 nd quintile) for each behavior were needed to ensure criterion validity and to be logically congruent with the psychology students' task of sorting these behaviors into three creativity domains (the Sciences, the Arts, or Everyday creativity; SEA). There was little sense in sorting something generally uncreative into any creativity domain (e.g., *I am bored*; 1st quintile). With high

agreement, the psychology students sorted the behaviors into the domains of SEA (Table 2).

Study conditions. The students of teacher studies and teachers rated the behavior groups on a seven point scale, from *low* to *high*, based on their own subjective opinion regarding the behaviors that the “child” displayed, in other words, how creative they were. Four experimental independent conditions in which the same behavior groups were rated were: Children (C condition; n of student raters = 39), Boys (B condition; n of student raters = 54), Girls (G condition; n of student raters = 54), and Pupils (P condition; n of teacher raters = 18). Written instructions supplemented with visual cues were given to the raters focused on the C, B, G or P. All the questionnaire pages, depending on the condition, had their condition written in the diagonal in grey font, size 150 (e.g., Boys). This research dealt with the construct validity of creativity operationalized as a set of behavioral constellations consisting of individual behaviors of a priori known characteristics (i.e., expert rated level of creativity), as well as how implicit theories of creativity may influence the creativity ratings of behavior groups, based on the behavior groups’ domain specific contents. In this way, the four study conditions also represented the research replication.

The students of teacher studies and teachers were not informed that the behavior groups were fictional, and not representative of any real children’s behavioral constellation. The behavior groups were used to: (a) simulate everyday rating situations in everyday educational settings based on incomplete or few behavioral descriptors of children’s behavior, (b) discern what creativity domain exerted the strongest influence on the students’ and the teachers’ ratings of creativity, as well as to (c) provide empirical support to the measurement of creativity in children in terms of behavioral constellations of a priori known characteristics.

RESULTS

The results section consists of three subsections exploring: a) convergent validity of the creativity rated as a behavior, b) gender and social role differences in the creativity ratings, and c) the implicit theories of creativity and their effects on the creativity ratings. The first part showed that different raters agreed in their overall creativity ratings; the second part displayed how the same behavior group was rated differently when gender and social role was taken into account; and the third part elaborated on these findings by pointing to the importance of the creativity domains in the overall creativity ratings.

Convergent validity of creativity rated as a behavior

The psychologists’ averaged sum of the rated creativity of the individual behaviors within the behavior groups was used as the criterion measure of creativity of the

Table 2. Summary of intercorrelations of the study variables

Measures	1	2	3	4	5	6	7	8
Creativity ratings								
1. Educational psychologists ^a	–	0.60**	0.44**	–0.42**	0.87**	0.88**	0.88**	0.91**
Creativity domains								
2. the Arts ^b		–	0.11	–0.50**	0.50**	0.57**	0.56**	0.58**
3. the Sciences ^b			–	–0.05	0.19	0.32*	0.33*	0.42**
4. the Everyday c. ^b				–	–0.32*	–0.45**	–0.40**	–0.41**
Creativity ratings ^b								
5. Children					–	0.95**	0.95**	0.91**
6. Boys						–	0.98**	0.96**
7. Girls							–	0.97**
8. Pupils								–

Note. ^aEntire sample of behavior groups, $n = 64$. ^bSecond to fifth quintile of the behavior groups, $n = 51$. * $p < 0.05$. ** $p < 0.01$.

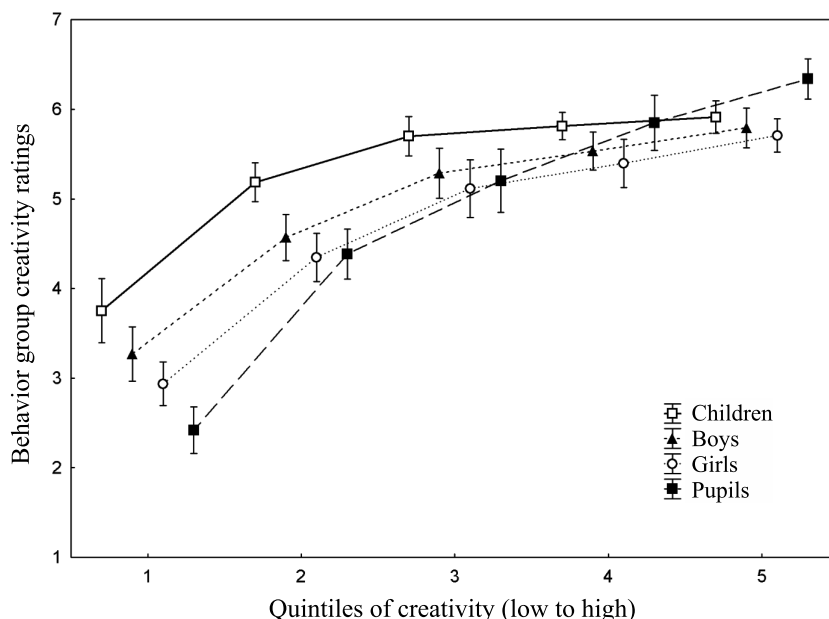


Figure 1. Profiles of the behavior groups' average creativity ratings for the four study conditions in comparison to the criterion quintiles to which the behavior groups belong.

Note. Error bars represent the mean confidence intervals (95%). Points are offset horizontally so that error bars are visible.

64 behavior groups. The skew of the ratings of the behavior groups within the four study conditions was improved by means of rereflected square root transformation, and the obtained K-S tests revealed no departure from normality. All individual correlations of the criterion (educational psychologists' ratings) and CBGP ratings were ≥ 0.9 (see Table 2), presenting high one-year and two-year differential stabilities of creativity ratings, as well as providing support to the convergent validity of the inter-rater agreements on creativity as a behavior.

The quintiles of the criterion measure theoretically differed only quantitatively, so the nature of the functional relationship between the criterion and CBGP ratings was evaluated by means of trend analyses. Overall, the linear and quadratic trends, due to the step discrepancy between the first and the second quintile (Figure 1), were significant, $F(4, 59) = 89.64, p < 0.001, \eta^2 = 0.86$. When the selected 2nd to 5th quintile were included in the trend analysis, only the linear trend remained significant, $F(3, 47) = 26.38, p < 0.001, \eta^2 = 0.63$.

Gender and social role differences in the creativity ratings

A profile analysis was performed on the four repeated creativity rating conditions and criterion quintiles. Using Wilks' criterion, the profiles overall, seen in Figure 1, deviated significantly from parallelism, $F(12, 151) = 9.58, p < 0.001$, partial $\eta_p^2 = 0.39$. Only Boys and Girls had parallel profiles, $F(4, 59) = 1.32, p = 0.272, \eta_p^2 = 0.08$, but differed in the average received ratings, favouring Boys. For the levels test, there were, as theoretically expected, statistically significant differences among the quintiles when creativity ratings were averaged across all conditions, $F(4, 59) = 89.64, p < 0.001, \eta_p^2 = 0.86$. The overall transformed mean quintile ratings (estimated marginal means) were 1.79, 2.17, 2.37, 2.47, 2.57, rendering all but two quintile differences significant at $p < 0.01$. This is so because the differences level off, with nonsignificant average differences between the third and the fourth, and the fourth and the fifth quintile, in line with the previously noted significant linear and quadratic trends. When averaged over the quintiles, however, the study conditions were found to deviate significantly from flatness, $F(3, 57) = 94.78, p < 0.001, \eta_p^2 = .83$. The behavior groups rated as Children received on average the highest creativity ratings, ($M = 2.37, SE = .01$), in comparison to Pupils ($M = 2.27, SE = 0.02$), Boys, ($M = 2.26, SE = 0.02$), and Girls, ($M = 2.21, SE = 0.02$). Boys and Pupils, not different from one another, both received overall higher ratings than Girls, $p < 0.01$. Within the quintiles (Figure 1), post-hoc comparisons with Bonferroni's adjustment, starting from the first quintile, were: (1) all differences are significant, (2) P is equal to B, and P is equal to G, (3) P is equal to B, and P is equal to G, (4) P is equal to C, and B is equal to G, and (5) B is equal to C, and B is equal to G. All the other mean differences within the quintiles among the conditions were statistically significant.

The complex set of levels and the interactions depicted in Figure 1 can lead to conclusions that there are significant average level differences in the four study conditions, with ratings overall following the expected linear trend (and quadratic, when the first quintile is included), and with parallel profiles for boys and girls. Moreover, the behavior groups within quintiles 1–3 received comparatively higher creativity ratings which deemed to be displayed for Children in comparison to all the other conditions, and the mean differences in the received creativity ratings between the study conditions generally decreased as a function of criterion validity, conveying a message of stronger agreement for higher creativity.

Implicit theories of creativity

The trend and profile analyses provided an initial insight into the implicit theories of creativity shared by the educational psychologists, primary school teachers and university students (all r 's ≥ 0.9). The behaviors identified by the majority of the psychology students ($\geq 70\%$) to be indicative of a single domain, counted as follows: the Sciences (S; $n = 46$; 19.4%), Everyday (E; $n = 35$; 14.8%), and the Arts (A; $n = 65$; 27.4%). These agreed upon clearer examples of domain specific behaviors were used in order to find out which domain (SEA) had the strongest influence on the students' and the teachers' creativity ratings. Over one third of the creative behaviors represented an amalgamate of these three domains of creativity (91; 38.4%). For study purposes they were left out, and only the behaviors clearly representative of their domain were used. Interestingly, these four groups of behaviors (S, E, A, and "amalgamate"), when compared according to the criterion measure of creativity, differed significantly, $F(3, 236) = 18.68, p < 0.001$. S and A were rated equally creative, ($M = 4.56, SD = 0.92$; $M = 4.59, SD = 0.71$), and both as more creative than the amalgamate group ($M = 4.02, SD = 0.76$). S, A, and the amalgamate group were rated significantly more creative than E ($M = 3.52, SD = 0.84$), all with $p < 0.01$.

There is almost a linear decrement in the number of the behaviors belonging to E as the result of the increase in the creativity construct validity. From the second to the fifth quintile, the overall number of E behaviors declined (17, 9, 6, and 3) so the number of E in the behavior groups turns into a negative predictor of the creativity criterion. The number of E is also negatively correlated with the number of A in the behavior groups, $r(51) = -0.50, p < .001$. This means that the number of E decreases and the number of A in the behavior groups increases with criterion validity. Correlations of E and S, $r(51) = -0.05, p = 0.730$, A and S, $r(51) = 0.11, p = 0.434$, were not significant. E in this research consisted of overall playful behaviors of low complexity, which makes them fun, but is also regarded as indicative of overall lower levels of creativity. For example, in comparison to *suggesting what games to play next* (E), behaviors such as *writing poetry* (A), or *creating remotely operated toys* (S), received higher creativity ratings. The more similar the study

conditions creativity ratings to the criterion, the more so E becomes negatively predictive of the rated creativity. This means that the nature of the construct of everyday creativity is in need of further research, as well as that the creativity criterion is in line with artistic and scientific activities. Because of this finding, the number of everyday creativity behaviors in behavior groups was not used as the predictor within the regression analyses. To clarify, the newly constructed S and A variables had only the number of S or A behaviors in them for each of the 64 behavior groups. For example, the second example described in the *Measurements and procedures* section of this paper, had AAASS behaviors, meaning 3 in A, and 2 in S.

The multiple regression analyses (Table 3) were conducted to evaluate how well the domain specific behaviors predicted the overall behavior groups' creativity ratings. The predictors were the number of behaviors from the domains of the arts (A) and the sciences (S) in every behavior group, with the improved skew through log transformation, while the dependent measures were the overall behavior groups' creativity ratings within the four study conditions. The linear combination of domain specific behaviors was significantly related to the creativity ratings in all the study conditions, explaining 27, 39, 39, and 47% of the variance in C, B, G, and P

Table 3. Results of the multiple regression analyses with the number of behaviors in the behavior groups belonging to the domains of arts and sciences as the predictors of the creativity ratings of the behavior groups in the four study conditions

Study conditions	Predictors of the creativity ratings	B	SE B	β
Children	Constant	2.37	0.03	
	The Arts	0.28	0.07	0.48**
	The Sciences	0.09	0.08	0.13
	$R = 0.52; R^2 = 0.27; \text{Adj.}R^2 = 0.24; [95\% \text{ CI } 0.08-0.44]$			
Boys	Constant	2.19	0.04	
	The Arts	0.42	0.09	0.54**
	The Sciences	0.22	0.10	0.26*
	$R = 0.63; R^2 = 0.39; \text{Adj.}R^2 = 0.37; [95\% \text{ CI } 0.19-0.56]$			
Girls	Constant	2.13	0.04	
	The Arts	0.44	0.09	0.53**
	The Sciences	0.25	0.10	0.27**
	$R = 0.62; R^2 = 0.39; \text{Adj.}R^2 = 0.36; [95\% \text{ CI } 0.18-0.56]$			
Pupils	Constant	2.12	0.05	
	The Arts	0.63	0.12	0.54**
	The Sciences	0.47	0.14	0.36**
	$R = 0.68; R^2 = 0.47; \text{Adj.}R^2 = 0.44; [95\% \text{ CI } 0.26-0.62]$			

Note. Regression analyses were performed on the subsample of the behavior groups, $n = 51$. Steiger & Fouladi R2 software was used to calculate the confidence intervals (CI); lower and upper limits are shown. * $p < 0.05$. ** $p < 0.01$.

ratings, in that order, $F(2, 48) = 8.76, p = 0.001$; $F(2, 48) = 15.58, p < .001$; $F(2, 48) = 15.26, p < 0.001$; $F(2, 48) = 21.05, p < 0.001$. These large effects, based on the amount of A and S behaviors in the behavior groups, suggested that the qualitative domain differences bear weight, favouring A more strongly as the basis of the overall creativity ratings in all the study conditions.

DISCUSSION

The results suggest that the temporally and vocationally different sources of information on children's individual behavior and its hypothetical constellations (behavior groups), converged into a coherent structure of predictable and differentially stable, nearly linear relationships. This predictable agreement regarding creativity, but also the biases, can be used wisely to employ educators as highly attuned and valid identifiers of domain specific, artistic creativity in children and adolescents.

The "Arts bias" had a diminishing influence on the four study conditions (Figure 1). Exposed to a year of independent work as teachers in primary schools, and provided with the opportunity to observe nonselected children of the entire behavioral range, the beginner teachers, coming from the same faculty as the university students, may have developed more balanced and more critical internal evaluation criteria of what, in their minds, constituted creativity. The results suggest that the focus shifts from general playfulness as an indicator of creativity in children, to participation in the contextually defined artistic and intellectual activities, as measures of creativity in pupils. This progression is in line with developmental research, linking symbolic play in children to mature creativity (Lindquist, 2003; Vygotsky, 2004). Once a child becomes a pupil, the participation in qualitatively different tasks is implicitly expected and unstructured play is, at least during school hours, substituted with structured tasks of higher complexity (the Arts and the Sciences). If artistic activities are deemed as more indicative of creativity in children, this should be taken into account and corrected within teacher education.

The focus in understanding and measuring creativity in children in this study was placed on development and the learning process, in other words, the creative behaviors in which a child is engaged. Because the choice of activities is, to a degree, an extension of one's personality (Kaufman, Pumacchua & Holt, 2013), and the types of extracurricular activities that children participate in can be used to predict their adult choices and accomplishments (Milgram, 2003), knowing what the child actually does and paying attention to it, regardless of what beliefs on children's creativity are shared in general, can have profound consequences in children's lives. The question, "Are all children creative?", addressed to the educational psychologists and the teachers, is actually answered in high agreement throughout this study with: "Tell me what they do." Although what children produce is also important, when taking a developmental and educational stand, more important may be what

children engage in and what society offers, values and expects of them. If all children are believed to be already creative, regardless of what they do (see quintiles 1–3 for children in Figure 1) this can be used as an optimistic outline for educational and other interventions, but combined with much more attention paid to actual children's activities, and not the beliefs.

If the behavior groups were not hypothetical but represented idiosyncratic behavioral constellations displayed by a real child, based only on the behaviors that the child displayed, it would have been possible to predict that child's average level of expertly and nonexpertly rated creativity. This idea of individual behavior, or task-based creativity assessment, with relative independence of the individual behaviors and their potential to be (re)combined into new constellations as one chooses, can be theoretically extended into any constellation of behaviors. The measurement of creativity constellation in a continually changing person can easily be individually adapted and applied by means of the use of items (creative behaviors; tasks) of a priori known task-based average creativity level, either consensually agreed upon or otherwise established. A child can choose to participate in some activities, and in this way has its own idiosyncratic creative behavior constellation, and still would receive an ecologically valid overall measure of creativity, because the measure is bound to task characteristics, and not to the overall average on any scale. The Idiosyncratic Creativity Contents Constellation (ICCC) may result in idiosyncratic approaches to problem solutions due to the interactions of the constellation's contents (unique combination of behaviors, specific task-knowledge and other resources), rendering original (authentic) output more plausible.

The individual behaviour, or task-based approach to creativity conceptualization and measurement, named Idiosyncratic Creativity Contents Constellation (ICCC) is promising, because the measurement can be adapted to any child of any constellation of behavior, without the need for norms or standardizations of overall scale scores, because creativity is not easily normed. An invitation to the novel creativity research approach which is equally fluent, flexible, elaborate and original as the creative individuals themselves, is proposed in this study.

CONCLUSIONS

This research offered support to the: (1) act-frequency and prototypicality ratings approach to the precise and valid operationalization of creativity in children, as well as its measurement, (2) applicability of the social psychology of creativity and the consensual assessment technique in single and behavior group analysis, (3) intervocational agreement in the creativity ratings of the educational experts, (4) two-year differential stability of the overall creativity ratings, (5) shared implicit theories of creativity in children in general, but also for gender and their social role (pupils) with strong relationships of creativity and the arts, and finally, it provided

a theoretical innovation and initial proof of (6) construct validity of creativity as measurable in the form of a behavioral constellation consisting of behaviors of a priori known characteristics (i.e., level of creativity and the domain). Additionally, this study suggests the use of the new term: ICCC (Idiosyncratic Creativity Contents Constellation) to describe the *person-specific intraindividual constellation of creative behaviors* that may result in the authentic (original), and possibly even syncretic creative output.

Limits and implications

Task-based idiosyncratic creativity constellation operationalization and measurement is one reinterpretation of qualitatively differing manifest creativity in children and not a ratio-level measurement or a scale that starts at zero quantity and counts in equal-size units from there. Without that, it cannot be stated that the observed levels of creativity are absolute, consistent or uniform in any given place, time or group. Due to the lack of the ratio-based measurement of creativity, this study is grounded in the stability of the expert raters, to which this study provided support. Temporally and societally bound, ICCC can develop and evolve alongside any given culture, just as creativity does.

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UČINCI IMPLICITNIH TEORIJA EDUKATORA O KREATIVNOSTI NA NJENU EVALUACIJU POMOĆU IDIOSINKRATSKIH KONSTELACIJA SADRŽAJA KREATIVNOSTI

Sažetak

U istraživanju je ispitana valjanost ponašajne operacionalizacije kreativnosti u djece u procjenama edukacijskih psihologa, učitelja razredne nastave i studenata učiteljskoga studija, pri čemu su u obzir uzete njihove implicitne teorije o kreativnosti. Početni je skup ponašanja, prikupljen na djeci, procijenilo devet edukacijskih psihologa po stupnju tipičnosti za kreativnost. Studenti psihologije su procijenili jesu li pojedinačna ponašanja dobri predstavnici umjetničke, znanstvene ili svakodnevne kreativnosti. Na temelju procijenjene tipičnosti ponašanja za kreativnost, ponašanja su podijeljena u kvintile i oblikovana u 64 ponašajne skupine. Tri su skupine studenata učiteljskoga studija ($n = 147$) nezavisno procijenile sve 64 ponašajne skupine po kreativnosti, od niske do visoke. Upute studentima su se razlikovale na način da je prva skupina studenata procjenjivala ponašajne skupine imenovane kao Djeca, druga kao Djevojčice, a treća kao Dječaci. Učitelji su razredne nastave ($n = 18$) procijenili iste 64 ponašajne skupine, ali imenovane kao Učenici/e. Rezultati pokazuju slaganje procjena kreativnosti između edukacijskih psihologa, učitelja razredne nastave i studenata učiteljskoga studija ($r \geq 0,9$) u uvjetima četiri različite upute, istovremeno dajući uvid u pridavanje težine u procjenama kreativnosti ponašanjima iz domene umjetnosti. Dobiveni su nalazi interpretirani u okviru ekološke valjanosti operacionalizacije kreativnosti kao ponašanja s unaprijed definiranim obilježjima i mjerenja kreativnosti u obrazovnom kontekstu.

Glavne riječi: kreativnost u djece, implicitne teorije, specifičnost za domenu, pristranost prema umjetnosti

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