

ACSI-28 Indonesian Version Validity and Reliability

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Abstract The purpose of this study is to see if the ACSI-28 is valid and reliable after being translated and synthesized to fit Indonesian culture and linguistics, so that ACSI-28 can be utilized on athletes in Indonesia. ACSI-28 Indonesian version is adapted from the Athletic Coping Skills Inventory by Smith and colleagues (1995). A Likert scale of 1 to 4 was used to assign the score. The validity and reliability of the Indonesian version of ACSI-28 were tested using 45 participants in this study. Validity data were examined with Pearson Product Moment, and reliability was assessed with Cronbach Alpha. The validity of each item based on its respective subscales was found to range from 0.46 to 0.83 in the current study. The coping with adversity subscale item's validity value was found to range from 0.59 to 0.75. The coachability subscale item's validity value was found to range from 0.46 to 0.73. The concentration subscale item's validity value was found to range from 0.67 to 0.72. The confidence and achievement motivation subscale item's validity value was found to range from 0.63 to 0.73. The goal setting and mental preparation subscale item's validity value was found to range from 0.62 to 0.77. The peaking under pressure subscale item's validity value was found to range from 0.71 to 0.83. The freedom from worry subscale item's validity value was found to range from 0.67 to 0.77. The Indonesian version of the ACSI-28 reliability test had a reliability rating of 0.845, according to the current study. The findings of this study show that the Indonesian version of ACSI-28 is valid and reliable for usage in measuring an athlete's sports psychological skills in Indonesia.

Keywords Validity, Reliability, ACSI-28, Psychological Skills, Indonesia Version

1. Introduction

Athletic Coping Skills Inventory (ACSI-28) was an athlete sport psychological skills assessment by Smith et al. [1]. Coping with adversity, peaking under pressure, goal setting/ mental preparation, concentration, freedom from worry, confidence and achievement motivation, and coachability were subscales of ACSI-28 [1-7]. Individuals' cognitive and behavioral responses to internal and external demands that challenge or exceed their self-perceived resources are referred to as coping [4]. ACSI-28 can be used to determine it.

ACSI has been utilized in previous studies to investigate the association between coping skills and current hip pain and function scores in ballet dancers [8]. Overall, the modified ACSI instrument's good psychometric qualities give convincing preliminary evidence of the instrument's appropriateness, meaningfulness, and utility in firefighters [9]. In a prior study, ACSI was used to look at the relationship between dispositional accomplishment goal orientation and coping abilities in elite South African quadriplegic wheelchair rugby players [5]. ACSI has a reliability value of 0.88, and high internal consistency with a value of 0.90 [10]. The ACSI-28 has previously been utilized in Greek among Greek athletes, indicating that its

construct validity and internal consistency have been established [11]. Since Indonesian culture is very different from the Western one, it is necessary to adapt and evaluate the Indonesian version of the instrument before it is used [12].

Psychological inventories are useful tools for analyzing athletes' cognitive and affective states. Endurance sport self-efficacy was favorably connected with related self-efficacy beliefs (e.g. hurdles to training) and the application of coping skills during the competition for convergent validity [3]. Traditional modes of assessment in sport psychology were founded on the premise that an individual's pattern of behavior is determined by personality traits or states [13]. The ACSI-28 is made up of 28 statement items that are rated on a Likert scale. There are four statement items in each seven subscales. The answer options are rarely, sometimes, often, and almost always.

The goal of this study is to see if the Indonesian version of ACSI-28 is valid and reliable. To be used in sports psychology studies in Indonesia, the Indonesian version of ACSI-28 must be developed and tested for validity and reliability. This is the first study on the subject to be conducted in Indonesia. As a result, the findings will be useful to researchers, coaches, and other stakeholders interested in athlete coping skills.

2. Materials and Methods

Test the validity and reliability of the Indonesian version of the ACSI-28 questionnaire, which is presented in this article. Actually, it was taken from ACSI-28. There are seven subscales and 28 statement items in ACSI-28. There are four statement items in each subscale.

2.1. Participants

Students from the physical education study program, health and recreation, faculty of teacher training and education science, University of Muhammadiyah Bangka Belitung level 3–7 participated in this study. There were as many as 45 participants in the Indonesian version of the ACSI-28 validity and reliability test. With an age range of 18 to 23 years, the mean \pm SD of the participants' age (19.95 \pm 1.04).

2.2. Instruments

The instrument was adopted from the Athletic Coping Skills Inventory by Smith et al. (1995). The score assigns

using a Likert scale of 1 to 4.

2.3. Procedure

The original English text of ACSI-28 has been translated into Indonesian. Expert evaluations were used to test the construct's validity. Participants were sent questionnaires via Google Form once they had been examined. In addition, the same thing was also done in a previous study, where the web-based ACSI Questionnaire was used on amateur rugby union players [14]. Previous research in the creation of the Indonesian version of PYDI used the same approach [15].

2.4. Statistical Analysis

The validity of the Pearson Product Moment questionnaire is determined by measuring and obtaining research data from respondents. The reliability test of the questionnaire was carried out with Cronbach Alpha. When the instrument's value is more than 0.7, it has a high level of reliability [16]. This method is commonly used to determine an instrument's consistency. In previous studies, validity and reliability were statistically analyzed in the same way [17, 15, 18]. The MS Excel 2016 application was used for all of the analyses in this study.

3. Results

The ACSI-28 instrument was translated and synthesized to fit Indonesian culture and linguistics, so the Indonesian version has the same meaning as the original and may be used to assess the athlete sport psychological skills in Indonesia. Table 1 shows the outcomes of the translation.

3.1. Description of Research Results

Based on the seven ACSI-28 subscales, the data were descriptively examined. The value is the sum of each subscale's item scores. The average score for coping with adversity was (12.26 \pm 1.93). Coachability was given an average score of (9.62 \pm 1.70). The average concentration was found to be (11.64 \pm 1.95). The average score for confidence and achievement motivation was (12.08 \pm 2.05). The average score for goal setting and mental preparation was (12.40 \pm 1.91). The average value for Peaking under pressure was (10.91 \pm 2.50). The average value for freedom from worry was (10.31 \pm 2.63). Table 2 displays the summary statistics.

Table 1. ACSI-28 Original and Indonesian Version

Number of Items	Original	Indonesian Version
1	On a daily or weekly basis, I set very specific goals for myself that guide what I do.	<i>Setiap hari atau setiap minggu, saya menetapkan tujuan yang sangat spesifik untuk diri saya yang menjadi acuan apa yang saya lakukan.</i>
2	I get the most out of my talent and skill.	<i>Saya telah melakukan yang terbaik dari bakat dan keterampilan saya.</i>
3	When a coach or manager tells me how to correct a mistake I've made, I tend to take it personally and feel upset.	<i>Ketika seorang pelatih atau manajer memberi tahu saya cara memperbaiki kesalahan yang saya buat, saya cenderung menganggapnya masalah pribadi dan merasa kesal.</i>
4	When I'm playing sports, I can focus my attention and block out distractions.	<i>Ketika saya berolahraga, saya bisa fokus dan menghalangi gangguan dari luar.</i>
5	I remain positive and enthusiastic during competition, no matter how badly things are going.	<i>Saya tetap positif dan antusias selama kompetisi, tidak peduli betapa buruknya keadaan.</i>
6	I tend to play better under pressure because I think more clearly.	<i>Saya cenderung bermain lebih baik di bawah tekanan karena saya berpikir lebih jernih.</i>
7	I worry quite a bit about what others think of my performance.	<i>Saya sedikit khawatir tentang apa yang orang lain pikirkan tentang performa saya.</i>
8	I tend to do lots of planning about how to reach my goals.	<i>Saya cenderung melakukan banyak perencanaan tentang bagaimana mencapai tujuan saya.</i>
9	I feel confident that I will play well.	<i>Saya merasa yakin bahwa saya akan bermain dengan baik.</i>
10	When a coach or manager criticizes me, I become upset rather than feel helped.	<i>Ketika seorang pelatih atau manajer mengkritik saya, saya menjadi kesal daripada merasa dibantu.</i>
11	It is easy for me to keep distracting thoughts from interfering with something I am watching or listening to.	<i>Mudah bagi saya untuk menjaga pikiran agar tidak terganggu/terinterferensi oleh sesuatu yang saya tonton atau dengarkan.</i>
12	I put a lot of pressure on myself by worrying about how I will perform.	<i>Saya memberi banyak tekanan pada diri saya sendiri dengan mengkhawatirkan bagaimana performa saya.</i>
13	I set my own performance goals for each practice.	<i>Saya menetapkan tujuan/ target kinerja saya sendiri untuk setiap latihan.</i>
14	I don't have to be pushed to practice or play hard; I give 100%.	<i>Saya tidak perlu didorong untuk berlatih atau bermain keras; Saya sudah memberi 100%.</i>
15	If a coach criticizes or yells at me, I correct the mistake without getting upset about it.	<i>Jika pelatih mengkritik atau meneriaki saya, saya memperbaiki kesalahan itu tanpa merasa kesal.</i>
16	I handle unexpected situations in my sport very well.	<i>Saya menangani situasi yang tidak terduga dalam olahraga saya dengan sangat baik.</i>
17	When things are going badly, I tell myself to keep calm, and this works for me.	<i>Ketika segalanya berjalan buruk, saya mengatakan pada diri saya untuk tetap tenang, dan hal ini berhasil untuk saya.</i>
18	The more pressure there is during a game, the more I enjoy it.	<i>Semakin banyak tekanan selama pertandingan, semakin saya menikmatinya.</i>
19	While competing, I worry about making mistakes or failing to come through.	<i>Saat berkompetisi, saya khawatir membuat kesalahan atau gagal mengatasinya.</i>
20	I have my own game plan worked out in my head long before the game begins.	<i>Saya sudah memiliki rencana permainan sendiri yang akan berhasil di pikiran saya jauh sebelum permainan dimulai.</i>
21	When I feel myself getting too tense, I can quickly relax my body and calm myself.	<i>Ketika saya merasa diri saya terlalu tegang, saya dapat dengan cepat merilekskan tubuh saya dan menenangkan diri saya.</i>
22	To me, pressure situations are challenges that I welcome.	<i>Bagi saya, situasi tertekan adalah tantangan yang saya sambut.</i>

Table 1 Continued

23	I think about and imagine what will happen if I fail or screw up.	<i>Saya memikirkan dan membayangkan apa yang akan terjadi jika saya gagal atau mengacau.</i>
24	I maintain emotional control regardless of how things are going for me.	<i>Saya mampu mempertahankan kontrol emosional terlepas dari bagaimanapun keadaan saya.</i>
25	It is easy for me to direct my attention and focus on a single object or person.	<i>Mudah bagi saya untuk mengarahkan perhatian dan fokus pada satu objek atau orang.</i>
26	When I fail to reach my goals, it makes me try even harder.	<i>Ketika saya gagal mencapai tujuan saya, itu membuat saya berusaha lebih keras.</i>
27	I improve my skills by listening carefully to advice and instruction from coaches and managers.	<i>Saya meningkatkan keterampilan saya dengan mendengarkan secara seksama nasihat dan instruksi dari pelatih dan manajer.</i>
28	I make fewer mistakes when the pressure is on because I concentrate better.	<i>Saya membuat lebih sedikit kesalahan ketika berada dalam tekanan karena saya berkonsentrasi lebih baik.</i>

Table 2. Summary Statistics of ACSI-28 Indonesian Version by Subscale

Subscale	n	Mean	SD
Coping With Adversity	45	12.26	1.93
Coachability	45	9.62	1.70
Concentration	45	11.64	1.95
Confidence and Achievement Motivation	45	12.08	2.05
Goal Setting and Mental Preparation	45	12.40	1.91
Peaking Under Pressure	45	10.91	2.50
Freedom From Worry	45	10.31	2.63

3.2. Validity of ACSI-28 Indonesian Version

Testing the validity using Pearson's product moment using a significance value of 0.05, a r table of 0.294 is obtained, and a significance value of 0.01 is obtained by a r table of 0.380. The results of the validity test are presented in Figure 1 in the appendix. Tests are carried out based on the items of each subscale. The seven ACSI-28 subscales each consist of four statement items. The results of the validity test based on the ACSI-28 Indonesian version subscale can be described as follows:

The coping with adversity subscale consists of items numbered 5, 17, 21, and 24. These four items have valid results at a significance level of 0.01. Where the value of r count is greater than r table. Item number 5 ($r_{\text{count}} = 0.68$), item number 17 ($r_{\text{count}} = 0.59$), item number 21 ($r_{\text{count}} = 0.75$), and item number 24 ($r_{\text{count}} = 0.61$).

The coachability subscale consists of items numbered 3, 10, 15, and 27. These four items have valid results at a significance level of 0.01. Where the value of r count is greater than r table. Item number 3 ($r_{\text{count}} = 0.73$), item number 10 ($r_{\text{count}} = 0.57$), item number 15 ($r_{\text{count}} = 0.46$), and item number 27 ($r_{\text{count}} = 0.59$).

The concentration subscale consists of items numbered 4, 11, 16, and 25. These four items have valid results at a significance level of 0.01. Where the value of r count is greater than r table. Item number 4 ($r_{\text{count}} = 0.68$), item

number 11 ($r_{\text{count}} = 0.72$), item number 16 ($r_{\text{count}} = 0.69$), and item number 25 ($r_{\text{count}} = 0.67$).

The confidence and achievement motivation subscale consists of items numbered 2, 9, 14, and 26. These four items have valid results at a significance level of 0.01. Where the value of r count is greater than r table. Item number 2 ($r_{\text{count}} = 0.70$), item number 9 ($r_{\text{count}} = 0.65$), item number 14 ($r_{\text{count}} = 0.63$), and item number 26 ($r_{\text{count}} = 0.73$).

The goal setting and mental preparation subscale consists of items numbered 1, 8, 13, and 20. These four items have valid results at a significance level of 0.01. Where the value of r count is greater than r table. Item number 1 ($r_{\text{count}} = 0.72$), item number 8 ($r_{\text{count}} = 0.62$), item number 13 ($r_{\text{count}} = 0.77$), and item number 20 ($r_{\text{count}} = 0.75$).

The peaking under pressure subscale consists of items numbered 6, 18, 22, and 28. These four items have valid results at a significance level of 0.01. Where the value of r count is greater than r table. Item number 6 ($r_{\text{count}} = 0.77$), item number 18 ($r_{\text{count}} = 0.83$), item number 22 ($r_{\text{count}} = 0.72$), and item number 28 ($r_{\text{count}} = 0.71$).

The freedom from worry subscale consists of items numbered 7, 12, 19, and 23. These four items have valid results at a significance level of 0.01. Where the value of r count is greater than r table. Item number 7 ($r_{\text{count}} = 0.75$), item number 12 ($r_{\text{count}} = 0.67$), item number 19 ($r_{\text{count}} =$

0.77), and item number 23 ($r_{\text{count}} = 0.76$).

3.3. Reliability of ACSI-28 Indonesian Version

The reliability test of the questionnaire was carried out with Cronbach's Alpha. The results of the reliability test obtained a reliability value of 0.845. The ACSI-28 Indonesian version has a high-reliability category because it has a value greater than 0.7. The reliability value is larger than 0.70, this reliability measure is acceptable [19].

4. Discussion

The validity and reliability of the ACSI-28, which has been translated into Indonesian, are investigated in this study. The Indonesian translation of the ACSI-28 model does not alter the original ACSI-28 model. The Indonesian version of the ACSI-28 contains 28 statement items and seven subscales. The scoring options were adjusted using a Likert scale of 1 to 4, where the original ACSI-28 rating was 0 to 3. Previous research that employed a 5-point scale (1 = strongly disagree; 5 = strongly agree) discovered different things [11]. The most significant distinction between the original ACSI-28 and the Indonesian version is the score. The original ACSI-28 item has a maximum score of three, whereas the Indonesian version has a maximum score of four. The original 12 or the Indonesian variant of 16 is the maximum score for each ACSI-28 subscale. However, it has no bearing on the meaning of the scores for each option. Both the original ACSI-28 and the Indonesian version offer four options: rarely, occasionally, often, and almost always. In the prior study, different things were done, only four of the intended seven ACSI-28 subscales were built [9].

The current study found that the validity of each item based on its respective subscales obtained values from 0.46 to 0.83 at a significance level of $p\text{-value} = .001$. In Previous studies, internal consistency (Cronbach's alpha) ranged from 0.69 to 0.87 [4]. Internal consistency has been reported between 0.84 and 0.88 [20]. Internal consistency of the selected subscales from ACSI-28 in the previous study was 0.85 [11]. According to the current study, the Indonesian version of the ACSI-28 is valid for assessing athletes' sport psychological abilities in Indonesia.

The current study found that the Indonesian version of the ACSI-28 reliability test obtained a reliability value of

0.845. The ACSI-28 Indonesian version has a high-reliability category because it has a value greater than 0.7. In previous studies, the 28-item total score yielded an alpha coefficient of 0.86 [4]. Yielding a confirmatory factor index (CFI) of 0.91 [20]. All of the ACSI-28 subscale inter-correlations were highly significant [1]. Reliability of scores from the ACSI-28 with the previous study was 0.85 [5]. Current research reveals that the Indonesian version of ACSI-28 is reliable to measure an athlete's sport psychological skills in Indonesia.

The athletes' sport psychological skills in Indonesia are one of the important factors that must be monitored to avoid negative effects. The Indonesian version of ACSI-28 can be used as a reference for trainers. A Previous study found that coping with adversity, freedom from worry, confidence and achievement motivation were all key mediators in the connection between negative affect and eating disorders symptoms [20]. According to preliminary research, psychological skills contribute to injury prevention, physical healing from injury, increased self-confidence, and reduced cognitive and physical anxiety [21]. The autonomous motivation was connected to improved coping among adolescent athletes when compared to managed motivation [11].

5. Conclusions

The findings of the validity analysis of the ACSI-28 Indonesian version indicate that 28 items are valid to measure the psychological skills of an athlete in Indonesia. The findings of the Indonesian version of the ACSI-28 reliability analysis show that it has a high-reliability value to measure the psychological skills of an athlete in Indonesia. The findings of these two analyses prove that the Indonesian version of ACSI-28 can be used on athletes in Indonesia. In Indonesia, an athlete's sport psychology skills are one of the things that are very important to be considered in order to avoid unwanted consequences.

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Appendix

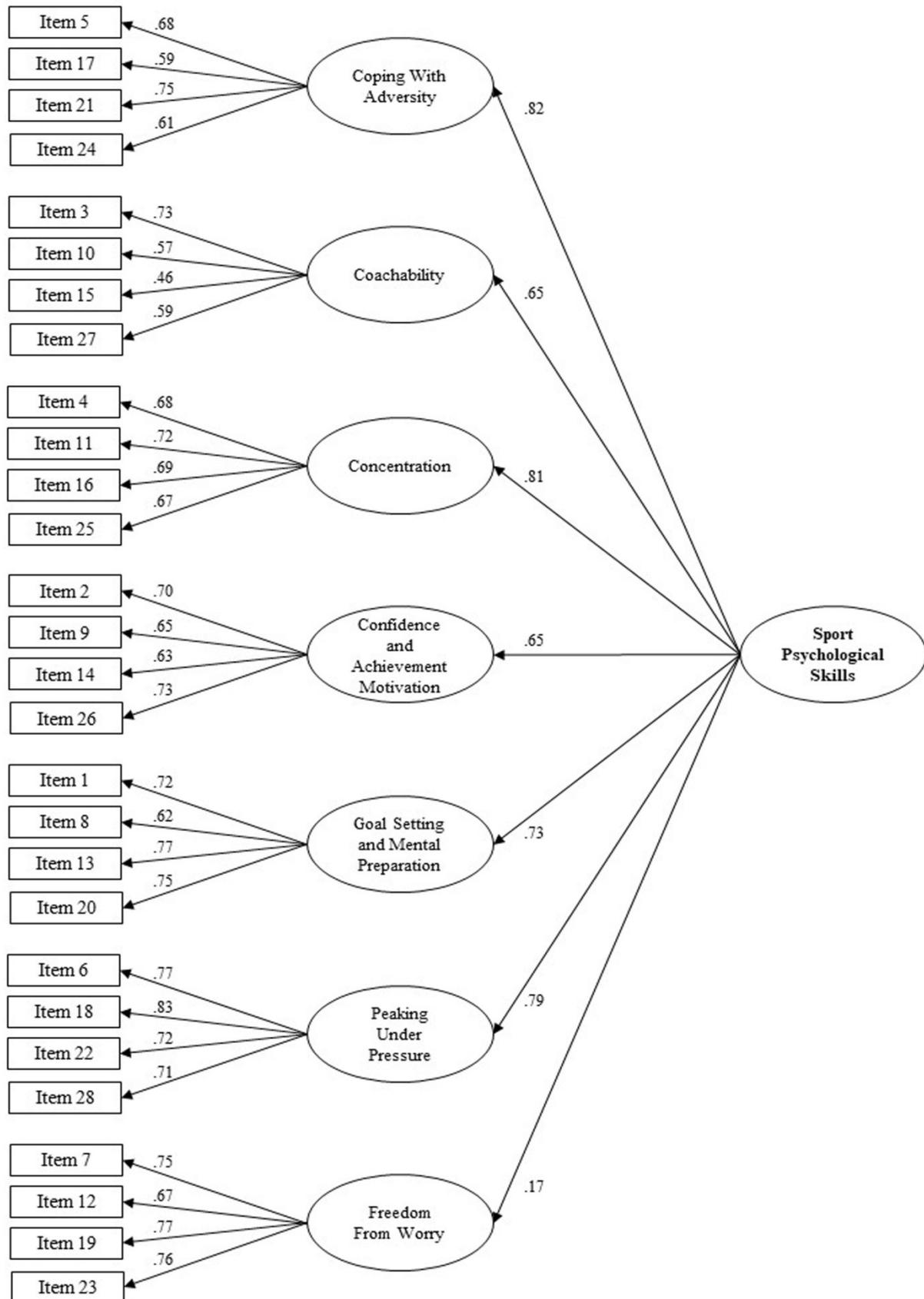


Figure 1. ACSI-28 Indonesian Version Validity Results

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