



Temporal relationship between perceptions of educational situations and aggressiveness among juveniles

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ABSTRACT

The aim of the study was to analyze the temporal relationship between psychological perceptions (i.e., situational DIAMONDS) of educational situations and aggressiveness among juveniles (N = 726) referred by the courts to educational and probation centers. Our two-wave analyses suggested that the relationships between aggressiveness and perceptions of the educational situation were not reciprocal. Specifically, we found that aggressiveness measured at Time 1 was positively related to perceptions of the situation as negative and deceiving at Time 2. In contrast, none of the eight DIAMONDS situation dimensions at T1 were related to aggressiveness at T2. The results show that aggressiveness can explain how juveniles define educational situations.

1. Introduction

Situations encountered in everyday life, in addition to objective cues, are perceived subjectively; that is, individuals can—and do—perceive the same situation differently. On the one hand, experimentally controlled stimuli (e.g., situation) determine an individual's thoughts, emotions, and behavior (Lewin, 1936; Mischel & Shoda, 1995; Ross & Nisbett, 2011), while on the other, individuals tend to define or explain the situations in which they are (Fournier et al., 2008; Leikas et al., 2012; Rauthmann et al., 2016). These two perspectives highlight how personality and psychological perception of a situation are interrelated. At the same time, psychological perception of a situation can predict personality traits, and personality traits can predict psychological perception of a situation (Rauthmann et al., 2014, 2015, 2016). To date, this bidirectional relation has been overlooked. In this article, we assess the extent to which prior psychological perceptions of situations are related to aggressiveness (as a relatively stable personality trait) and whether aggressiveness is related to psychological perceptions of situations. Notably, the study presented below analyses a very particular group of participants, namely socially maladjusted adolescents referred by the courts to youth and probation centers. Consequently, insights about the links between juveniles' aggressiveness and their perception

of the situation in the educational context may contribute to the development of future rehabilitation and therapeutic outcomes (Franssens et al., 2023).

1.1. Aggressiveness and the psychological Situations: Operationalization and research

Aggression is a significant problem for the psychosocial functioning of young people, including juveniles in need of educational and therapeutic methodology. The most apparent manifestations of aggressive behavior remain a serious problem for all staff involved in upbringing, education, and therapy; indeed, aggressiveness represents one of the most frequent reasons for the court to refer a family to probation and youth centers (Konaszewski, 2016, 2020). There is abundant evidence that young people with aggression problems are also more likely to develop other mental disorders or substance abuse problems. Moreover, they are more likely to engage in violent acts in adulthood (Kirk & Hardy, 2014; Tremblay et al., 2004). The harmful effects of aggression are far-reaching, affecting the young person in many contexts, from family to school and peers (Card & Little, 2006).

Aggressiveness might be defined as an individual's tendency to behave aggressively (Buss & Perry, 1992), which includes four aspects:

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physical aggression, verbal aggression, anger, and hostility. Physical (behavior aimed at inflicting pain on another person) and verbal—verbally hurting, humiliating, or injuring others—aggression are behavioral dimensions, and anger (defined as physiological arousal associated with a readiness to harm someone, containing physiological responses and affective components) reflects the emotional dimension. Hostility—negative attitudes toward others, manifested by suspicion, envy, feelings of harm, and injustice—speaks to the cognitive dimension (Buss & Perry, 1992). Aggressiveness is a holistic construct that integrates behavioral, cognitive, and emotional aspects. In this regard, for example, the trait of anger is a personality construct that refers to stable individual differences in the propensity to experience anger as an emotional state (Wilkowski & Robinson, 2008). Individuals who experience anger are more likely to react aggressively to various stimuli and to engage in physical and verbal aggression (Colasante et al., 2015; Gresham et al., 2016). There is growing support among researchers for the thesis that people with high trait anger are more likely to commit aggression (Bondu & Richter, 2016; Shorey et al., 2011). According to Moffitt's (1993) developmental taxonomy, there are two types of aggressive people: (1) those for whom aggression is stable and permanent (sustained throughout life) and (2) those for whom aggression is temporary and situational. Our study measures aggressiveness as a relatively stable personality trait.

In multiple theoretical perspectives, aggression and aggressiveness are analyzed in relation to the perceived situation – that is, existing research posits that aggression results not only from individual differences but also because of how one perceives a situation (O'Brienn et al., 2004). Aggressiveness, understood as a trait, could be considered as the density of the distribution of states, capturing its momentary enactment in everyday behavior (Fleeson & Jayawickreme, 2021). In other words, a person with high trait aggressiveness may enact aggressive behaviors in specific situations and contexts more easily (Kandler & Rauthmann, 2021; Rogoza et al., 2025). However, even if a situation consists of objectively measurable stimuli such as time of day, weather, lighting, and temperature, different individuals could interpret it differently (e.g., 20°C might be considered both warm or cold). Such an interpretation of a situation can be perceived by a person, creating subjective psychological features of the objective situation itself (Mischel & Shoda, 1995).

Rauthmann and colleagues (2014) posited that people perceive the characteristics of a situation through eight main dimensions (i.e., Duty, Intellect, Adversity, Mating, pOsitivity, Negativity, Deception, and Sociality; labeled situational DIAMONDS). Duty involves perceiving the situation through the lens of tasks and work to do. Intellect characterizes situations involving intellectual engagement. Adversity relates to perceived threats, problems, and criticism. Mating denotes situations involving love and potential interest in another person. pOsitivity describes situations considered pleasant, fun, and joyful. Negativity is a feature of the situation that produces negative feelings such as frustration, anxiety, or fear. Deception is a property of the situation that includes distrust and lying. Finally, Sociality is a characteristic of a situation that includes relationship formation or communication (Rauthmann et al., 2014). The DIAMONDS situations indicated can be attributed to the status of one aspect of a broader situational context since a personality trait may or may not manifest itself in a particular situation (DeYoung, 2015), for example, aggressiveness in a threatening or conflict situation. On the other hand, perceiving a situation as deception, for example, may determine the level of aggressiveness.

The links between psychological situations and aggressiveness and aggression, including anger or hostility, are not conclusive. There is empirical evidence suggesting the links between situational factors and aggressiveness (Asik-Ozturk et al., 2019; Campbell et al., 1985; Groves & Anderson, 2019; Malonda et al., 2019; Martínez-Ferrer et al., 2019; O'Brien et al., 2004) as well as studies showing that both, person-related (i.e., trait-like) and situational (i.e., state-like) factors shape feelings of anger and the expression of aggressive behavior (O'Brien et al., 2004). More specifically, current literature suggests that personality traits

translate into people's perception of situations they are in. For instance, seeing situations as adversarial was found to be linked to higher psychoticism, negative affect, and antagonism (Jonason et al., 2021). However, the links between aggressiveness understood as a relatively stable personality trait, and perceptions of the situation have been overlooked. This is the gap the current study intends to fill. Using a longitudinal two-wave survey measuring participants' aggressiveness and their situation perception, we aim to establish the direction and strength of the relationship between the two.

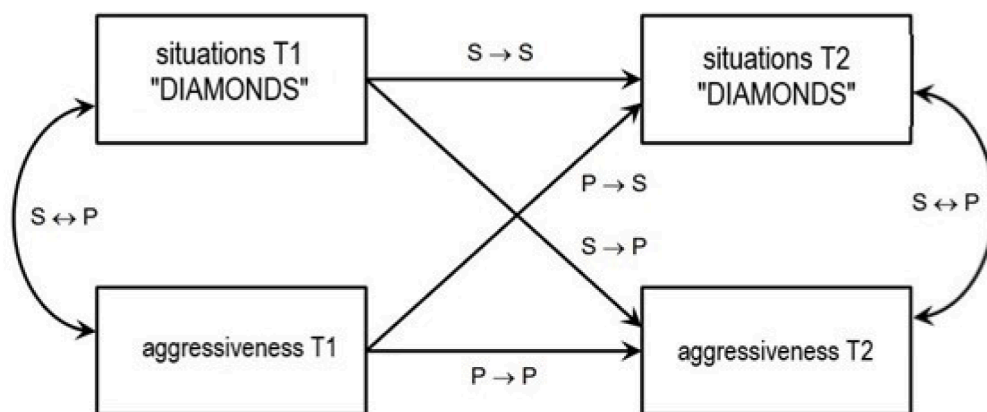
1.2. Situation perception and Aggressiveness: An Attempt of Integration

Situational concepts explaining aggressiveness are oriented toward assessing situational stimuli triggering chains of aggressive reactions and establishing relationships regarding perceptions of the situation and the likelihood of using violence (Ostrowska & Surzykiewicz, 2005). As Sykes (2007) or Campbell (1985) proposed, various situational triggers drive aggression (Campbell et al., 1985; Sykes, 2007). That is, individuals in certain conditions intensify their aggressiveness. Consider a case when the adolescent is sent to the juvenile detention center. Such a situation of isolation can be challenging and result in anger and hostility. Yet, the intensity of anger and hostility experienced in a frustrating situation depends not only on the objective characteristics of the situation itself but also on interpreting this particular situation (Berkowitz, 1993). Theoretical models of aggressiveness have been integrated into the General Aggression Model (GAM; Anderson & Bushman, 2002). GAM explains why people behave aggressively by referring to personal and situational factors, internal states, and decision-making processes. It further posits that aggression rarely occurs without a convergence of situational factors and personality traits. Aggressive behavior is thus understood as a result of complex traits and experiences that make an individual aggressive in a particular situational and social context. Hence, personal factors (e.g., personality traits) interact with situational factors (e.g., conflicts, perceptions of situations) to create an internal state that influences decision-making processes, which may or may not result in aggressive reactions (Allen et al., 2018; Anderson & Bushman, 2002; Cavalcanti & Pimentel, 2016).

Perceivers' personalities and objective aspects of a situation interact (Furr & Funder, 2018). As people are prone to perceive certain situations according to their personality traits, various individuals often perceive the same situation differently. A person's bad mood, anger, or hostility can make a neutral situation perceived as harmful or threatening. Consequently, juveniles may be more aggressive because they perceive the situation as potentially harmful. On the other hand, more aggressive individuals may misread a situation as providing an opportunity or need to behave aggressively. The study we present below explores the reciprocal links between aggressiveness and situation perception, considering their dynamic associations in time.

1.3. Aim of the study

To explain the temporal changes between personality and situational variables, this study explored the intersection of situational DIAMONDS and personality – specifically aggressiveness in a two-wave longitudinal design (Fig. 1). The purpose of this investigation was to analyze temporal (though not necessarily causal) personality-situation relationships by examining pathways between aggressiveness (Buss & Perry 1992) and the main dimensions of situational characteristics (corresponding to the DIAMONDS situational model; Rauthmann et al., 2014). We sought answers to research questions concerning: 1) Lagged stability paths, i.e., how stable are situational experiences and aggressiveness in a group of juveniles referred by family courts to probation and youth centers? 2) Cross-sectional paths, i.e., what is the relationship between perceptions of DIAMONDS situations and aggressiveness? and 3) Cross-lagged paths, i.e., how does earlier situational experience predict later aggressiveness, and how does earlier aggressiveness predict later DIAMONDS situation



Note. S = situation perception; P = personality.

Fig. 1. A Cross-Lagged Model for Aggressiveness (Personality) – DIAMONDS (Situations) Note. S = situation perception; P = personality.

characteristics when the initial level of aggressiveness/situation perception is controlled for? Consistent with previous studies showing stability over time of the variables analyzed (Evren et al., 2011; Huesmann et al., 1984; Olweus, 1978; Rauthmann et al., 2016), we hypothesized (H1) weak-to-moderate stability of situational experiences and robust stability of aggressiveness. Also, based on previous literature (e.g., Rauthmann et al., 2014, 2015, 2016; Sherman et al., 2015; Tremblay & Ewart, 2005), we expected that situation perception will be related to aggressiveness during the same measurement moments (H2). The most plausible specific links we hypothesized concerned the expected links between aggressiveness and the perception of the situation's adversity (H2.1.), perceiving the situation as negative (H2.2.), perceiving the situation as providing an opportunity for deception (H2.3.), and perceiving the situation in terms of mating (H2.4.).

To our knowledge, no previous research could justify precise hypotheses regarding aggressiveness-situation directionality. Therefore, we restrained from a priori hypotheses about which pathways indicate a given directionality pattern. Consequently, any directionality analysis is exploratory and conducted with the assumption that measuring the aggressiveness-situation relationships is essential to theory development and can guide future conceptual efforts.

2. Method

2.1. Participants

The study included 726 juveniles between 11 and 18 ($M = 15.30$, $SD = 1.60$, 55 % male). Those involved in criminal acts and demoralization were placed in juvenile educational centers, while 47 % with lower levels of demoralization were assigned to probation centers. The surveys were conducted in 9 youth educational centers and 41 probation centers.¹ The two-wave longitudinal study had a 67 % completion rate in both waves. The results of the attrition analysis showed that individuals who participated only in the first measurement did not differ

¹ A probation center is an open facility that conducts preventive, care and educational and rehabilitation and therapeutic activities in the juvenile's place of residence. A youth educational center is a closed resocialization institution (operating 24 h a day) for socially maladjusted youth requiring special organization of learning, methods of work, upbringing, psychological and pedagogical assistance and resocialization. Both the probation center and the youth educational center are addressed to juveniles who show symptoms of demoralization or have committed a criminal act.

significantly from those who participated in both measurements in terms of the results obtained in the first measurement (all t 's(714) < 0.99; all p 's > 0.323). The study was approved by the university's ethics committee, and data were collected from September 2022 to February 2023. The first wave (T1) occurred in September, and the second wave (T2) occurred in January and February. Data collection took place at the centers, and a trained project staff member administered the surveys to groups of about 20–30 participants in educational centers and about 5–10 participants in probation centers using a paper-and-pencil format. After data collection, each participant's responses were coded with a unique identifier to facilitate follow-up while maintaining anonymity. Informed consent was obtained from juvenile center directors, probation officers, guardians, and the juveniles themselves.

2.2. Measures

2.2.1. Aggressiveness

The Buss and Perry Aggression Questionnaire (BPAQ, Buss & Perry, 1992, Polish adaptation by Siewierska, 2005) was used to measure aggressiveness. The questionnaire contains 29 statements with a 5-point response scale ranging from 1 = *definitely no*, to 5 = *definitely yes*. BPAQ measures the overall level of aggressiveness, understood as a relatively stable trait manifested in a tendency toward aggressive behavior. The scale's reliability was $\alpha = 0.87$ for wave 1 and 0.87 for wave 2.

2.2.2. Psychological situation.

We relied on the DIAMONDS taxonomy (Rauthmann et al. 2014; Polish adaptation by Zajenkowski, 2020). It includes 24 items designed to assess eight dimensions of situational characteristics. Participants were instructed to "recall the last educational activities" and rated each item on a 7-point response scale with options ranging from 1 = *definitely no* to 7 = *definitely yes*. The eight dimensions were: Duty, which assesses the degree to which the work must be done [Cronbach's $\alpha = 0.80$ for Time 1 (T1) and 0.81 for Time 2 (T2)]; Intellect, which captures the cognitive engagement required by the situation ($\alpha = 0.79$ for T1 and 0.80 for T2); Adversity, which refers to situations that cause stress or criticism ($\alpha = 0.83$ for T1 and 0.84 for T2); Mating, which involves the presence of potential partners ($\alpha = 0.60$ for T1 and 0.57 for T2); pOsitivity, which reflects pleasant or fun situations ($\alpha = 0.84$ for T1 and 0.83 for T2); Negativity, which includes frustrating or negative circumstances ($\alpha = 0.85$ for T1 and 0.84 for T2); Deception, which refers to the possibility of cheating ($\alpha = 0.82$ for T1 and 0.83 for T2); and Sociability, which focuses on opportunities for social interaction ($\alpha = 0.73$ for T1

and 0.73 for T2).

2.3. Data analysis

The zero-order relations were computed using Pearson’s correlation coefficients, and their strength was compared using z-test. The bi-directional relations over time were computed by estimating the cross-lagged panel model in which all situational diamonds and aggressiveness measured at T2 were regressed on their counterparts measured at T1. The analysis was carried out on manifest variables; thus, the tested model was saturated. The analysis was carried out in Mplus v. 8.3 (Muthen & Muthen, 2021) using full information maximum likelihood estimation with robust standard errors. The data and code necessary for the reproduction of the results are available at the OSF project site: <https://osf.io/c6gdu/>.

3. Results

3.1. Stability of aggressiveness and situational DIAMONDS

The stability over time for aggressiveness was moderate ($r = 0.53$; $p < 0.001$), yet stronger than observed for specific DIAMONDS: Duty ($r = 0.28$; $p < 0.001$), Intellect ($r = 0.27$; $p < 0.001$), Adversity ($r = 0.29$; $p < 0.001$), Mating ($r = 0.17$; $p < 0.001$), pOsitivity ($r = 0.19$; $p < 0.001$), Negativity ($r = 0.25$; $p < 0.001$), Deception ($r = 0.18$; $p < 0.001$), and Sociability ($r = 0.12$; $p < 0.01$). These results are in line with our H1.

3.2. The relations between aggressiveness and situational DIAMONDS

We have implemented a Bonferroni correction for multiple tests to examine the significance of relationships between variables. That is, we considered a relationship as significant when $p < 0.005$. Such an approach, although strict, is congruent with best practices (Benjamin et al., 2017). To test the second hypothesis, we assessed how aggressiveness is related to psychological perception of situations. The results of the analyses, together with the 95 % confidence intervals, are presented in Table 1. The same pattern of correlations between aggression and perception of the situation was observed in the first and second measurements. Specifically, aggressiveness was positively related to perceiving the situation as adversive, mating, negative, and deceptive (thus supporting H2). The observed pattern of correlations was consistent across measurements – z-test results showed that the strength of the correlations between situational dimensions and aggression in the first measurement did not significantly differ from those in the second measurement (all p 's > 0.08), providing further support for H2.

3.3. Bi-Directional relationship between aggressiveness and situational DIAMONDS

To test the bidirectional relationship between aggressiveness and psychological perception of situations, we analyzed a cross-lagged panel

Table 1
Zero-Order Relations Between Aggressiveness and Situational Diamonds and Comparison of Correlation Coefficients Across Two Measurement Waves.

	Aggressiveness T1	Aggressiveness T2	Z	p
Duty	0.06 [-.09, 0.13]	0.01 [-.08, 0.10]	0.85	0.20
Intellect	0-.00 [-.08, 0.08]	0.07 [-.03, 0.16]	-1.18	0.12
Adversity	0.18* [.11, 0.26]	0.24* [.15, 0.32]	-1.07	0.14
Mating	0.19* [.16, 0.27]	0.15* [.06, 0.24]	0.70	0.24
pOsitivity	0.09 [.01, 0.17]	0.01 [-.09, 0.11]	1.37	0.09
Negativity	0.22* [.15, 0.30]	0.14* [.05, 0.23]	1.41	0.08
Deception	0.25* [.17, 0.33]	0.21* [.13, 0.30]	0.72	0.24
Sociability	0.08 [.00, 0.16]	0.00 [-.10, 0.10]	1.37	0.09

Note. Bonferroni correction applied. Correlations were marked as significant with * when $p < 0.005$.

model in which variables measured at T1 predicted those at T2. The results showed that the autoregressive parameters were significant for the dimensions of duty, intellect, adversity, and negativity (e.g., negativity measured at T1 predicted higher scores in negativity measures at T2; all p 's < 0.005). The autoregressive parameters for the dimensions of mating, positivity, deception and sociality were not significant. Of interest, we also identified bi-directional relations. Specifically, we found that aggressiveness measured at T1, was positively related to perceiving the situation as negative ($\beta = 0.12$ [95 % CI: 0.04, 0.21], $p = 0.006$) and deceptive ($\beta = 0.12$ [95 % CI: 0.03, 0.21]; $p = 0.011$) at T2 (while the p -values were significant according to conventional criteria, they were above the assumed threshold after applying Bonferroni correction). In turn, neither deception nor negativity measured at T1 were related to aggressiveness at T2 (p 's < 0.400). The study also controlled the type of facility to which the juveniles were referred. Analyses showed that the type of facility is not related to aggressiveness and perception of the situation (all p 's > 0.07). Detailed results of the analyses are included in Appendix.

4. Discussion

The study aimed to analyze the links between aggressiveness and the main dimensions of situation characteristics. We were particularly interested in testing the relationship between the dimensions of situational experience and aggressiveness in a two-wave study. The focus was first on analyzing the stability and correlation paths and then the cross-lagged paths of aggressiveness and educational situation in a group of juveniles.

4.1. Stability of aggressiveness and perception of situations across time

Our results indicate that aggressiveness is characterized by moderate stability over 6 months. This finding is congruent with the assumption that it is a relatively stable variable, which may indicate its time invariance to some extent (Buss & Perry, 1992), which is further supported by key studies on aggressiveness indicating a strong correlation between aggression in childhood, adolescence, and adulthood (Huesmann et al., 1984; Loeber & Hay, 1997; Olweus, 1978). Overall, our findings are consistent and indicate that the level of aggressiveness of juveniles is also stable over time.

The situational perception of DIAMONDS situations showed weak stability over time. Such results were obtained for all DIAMONDS dimensions. This pattern was also expected, given that situations are ephemeral as they constantly change (Rauthmann, 2015; Rauthmann et al., 2014, 2015). Consequently, people’s experiences of situations should not be very consistent across measurement waves—or at least less consistent than their personality traits. At a conceptual and methodological level, both situation experiences and personality states are variables related to the person but nevertheless differentiated by the object to which they relate. Situational experiences arise within persons (Rauthmann et al., 2015), and technically, they refer to “variables within the person,” but the object to which they relate is the situation. Personality traits also arise from individuals (Fleeson & Jayawickreme, 2015; Fleeson & Nofle, 2012) and are expressed by people’s reports of their states: action, cognition, motivation, and emotion. These are, of course, also “variables within the person,” but the object to which they refer is the person himself. Although the responding subject is the same, the measurement object changes. Therefore, the stability of the two types of variables, situational experiences, and personality states, may and does differ.

4.2. Relationship between aggressiveness and situational DIAMONDS

In line with our hypotheses, the associations between aggressiveness and the dimensions of the DIAMONDS situation were confirmed. The same pattern of correlations between aggression and perception of the

situation was observed in the first and second measurements. In particular, aggressiveness was positively related to the perception of the educational situation as aversive, mating, negative and deceptive. The observed correlation pattern appeared to be consistent across all measurements. The strength of the correlation between situational dimensions and aggression in the first measurement was not significantly different from that in the second measurement. The results indicate that DIAMONDS situations are related to aggressiveness, partially supporting our second hypothesis. On the other hand, the effect size of the links obtained was small. This indicates that aggressiveness as a relatively stable trait and perceived situations are quite loosely related, contrary to what was suggested by previous theories and studies (Funder, 2008; Furr & Funder, 2018; Rauthmann et al., 2015).

4.3. Cross-lagged analyses

Our two-wave analyses suggested that the relationships between aggressiveness and perceptions of the educational situation were not reciprocal. Aggressiveness measured at T1 was positively related to perceptions of the situation as negative and deceptive at T2. Accordingly, our results show that specific characteristics of individuals—in our case, aggressiveness—might explain how people define situations in which they find themselves (Fournier et al., 2008; Leikas et al., 2012).

Moreover, the effect sizes of cross-lagged paths we identified could be considered large, according to benchmarks (Orth et al., 2024). Indeed, a regression weight of $\beta = 0.12$ for the association between aggressiveness (T1) and deception (T2) and the same strength ($\beta = 0.12$) for the link between aggressiveness (T1) and negativity (T2) are substantial. In explaining these findings, reference can be made to dynamic-interactionist theories, which assume reciprocal relationships between individuals and situations (Caspi et al., 2005; Caspi & Roberts, 2001; Rauthmann et al., 2016). Closer and more frequent measurements would likely yield even larger effect sizes, but such studies are more challenging to implement (e.g., create a greater burden on participants). Of note, GAM theory hypothesizes that the situation contributes to the development of aggression (Anderson & Bushman, 2002), an effect not found in our cross-lagged analyses and only obtained correlationally. Thus, our results suggest that this is aggressiveness (likely along with other personality factors) that contributes to various perceptions of the experienced situation.

4.4. Future Directions and Limitations

Stability has traditionally been examined in connection with personality (Fleeson & Nofle, 2008). However, studying the stability and variability of situational experiences and real-life situations can offer equally important and interesting insights and generate knowledge about how situations change (Furr & Funder, 2018; Rauthmann et al., 2016; Sherman et al., 2015). How situations change over a day or for a lifetime can provide information that complements existing knowledge about short- and long-term processes of personality development (Caspi & Roberts, 2001). As GAM theory (Anderson & Bushman, 2002) posits, an essential variable besides the situation for the emergence of aggression is personality, so future research should incorporate personality, e.g., HEXACO (Lee & Ashton, 2014) or Big Five model (Costa & McCrae, 1999) in their designs.

A strength, yet potentially also a limitation of the current study, is associated with the sample – socially maladjusted adolescents from Poland. Their specificity may limit the generalizability of the results to broader populations. Still, having participants recognized for their transgressions adds to the external validity of the current findings. Additionally, the reliance on self-report measures is known to be associated with potential biases, such as common method bias and social desirability bias, which may have affected how participants reported their perceptions of the situation.

4.5. Practical implications

The study also aimed to point out the significance of the results in developing psychological and therapeutic interventions in aggressiveness and juveniles' perception of the educational situation. The results of this study suggest that aggressiveness plays a significant role in the perception of the educational situation in terms of deception and negativity. In this regard, educational programs (e.g., aggression replacement training) could use modules that help young people with the highest levels of aggression to reformulate or reinterpret unfavorable situations. Incorporating these situational aspects into aggressiveness education programs could provide a more comprehensive approach that combines behavioral, cognitive, emotional, and contextual elements to better support juvenile rehabilitation processes. Such an approach would not only be consistent with structured methodologies but would also address the need for targeted interventions that consider both the dispositional characteristics of individuals and the more variable nature of situational assessments.

In addition, aggression replacement training classes for juveniles might benefit from the inclusion of interactions that develop skills for coping with negative emotions or expanding the ability to cope with difficult situations. Such courses might create opportunities to get out of disturbed interaction, learn to recognize and use personality resources, correct self-esteem, and build self-confidence. Similar training has been repeatedly evaluated across countries and—for example—was recommended by the U.S. Department of Education and Department of Justice, and the American Correctional Association (Morawski, 2005).

Knowing how individuals perceive situations and the links between situations and aggressiveness can be particularly beneficial in addressing specific issues as well, such as clinical diagnoses (e.g., misperceptions of situations due to dysfunctional patterns) or estimating the effects of interventions (e.g., whether judgments of situations have changed). Knowledge of juveniles' perceptions of the situation may also be particularly beneficial to applied issues, such as individual diagnoses or attempts to estimate the effects of interventions. For example, it would be desirable to protocol after parenting classes whether perceptions of the situation in terms of negativity and deception decreased in juveniles showing higher levels of aggressiveness.

5. Conclusions

The study aimed to establish temporal relationships between educational situations and aggressiveness in a group of juveniles. Our results confirm the relatively stable nature of aggressiveness. Moreover, we demonstrated that aggressiveness predicted changes in perceiving situations along the dimensions of deception and negativity. The results obtained can provide valuable support for educational and therapeutic programs that take into account the dimensions of the DIAMONDS situation. The present study complements GAM theory (Anderson & Bushman, 2002), pointing to the role of aggressiveness as a relatively stable trait in perceiving situations. The findings also suggest the possibility of using training in re-socialization work, such as aggression replacement or anger control in juveniles. Future research is needed to determine whether such training will be indeed effective.

CRedit authorship contribution statement

Karol Konaszewski: Writing – review & editing, Writing – original draft, Project administration, Methodology, Funding acquisition, Formal analysis, Data curation, Conceptualization. **Radosław Rogoza:** Writing – review & editing, Methodology, Formal analysis, Data curation, Conceptualization. **Seweryn Nogalski:** Writing – review & editing, Methodology, Formal analysis, Data curation, Conceptualization. **Maciej Karwowski:** Writing – review & editing, Methodology, Formal analysis, Data curation, Conceptualization.

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Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix A. Supplementary material

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.jrp.2025.104599>.

Data availability

The data and code necessary for the reproduction of the results are available at the OSF project site: <https://osf.io/c6gdu/>

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