

*Peer-Review Record:*

## **Types of Relational Aggression in Girls Are Differentiated by Callous-Unemotional Traits, Peers, and Parental Overcontrol**

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*Behavioral Sciences* **2015**, *5*, pagination, doi:10.3390/bs50x000x

*Reviewer 1:* Anonymous

*Reviewer 2:* Anonymous

*Reviewer 3:* Anonymous

*Reviewer 4:* Anonymous

*Editor:* John Coverdale (Editor-in-Chief of Behavioral Sciences)

*Received:* 29 July 2015 / *Accepted:* 3 November 2015 / *Published:* 13 November 2015

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### **First Round of Evaluation**

#### *Round 1: Reviewer 1 Report and Author Response*

This is a well-written paper with a large sample of girls that replicates and extends important research on relational aggression. The focus on the functions (reactive and proactive) of relational aggression has significant implications for intervention with adolescent girls. I commend the authors for this timely and crucial study on factors that influence the development of aggression and antisocial behavior in girls, which is typically an understudied topic.

#### *Round 1: Author Response to Reviewer 1*

Thank you for the enthusiastic comments.

#### *Round 1: Reviewer 2 Report and Author Response*

This manuscript reports on person-centered analysis of adolescent girls finding that they are distinguished by types of aggression, callous-unemotional traits, and by interpersonal relationships with peers and parents. The study is consistent with other recently published work in this area in identifying subgroups that are characterized by their severity of aggression. These findings are in contrast to earlier work, which assumed that proactive and reactive aggression represented distinct typologies. This work, as with other recent work, makes clear that the most severely aggressive youth tend to engage in high

levels of both proactive and reactive aggression and are otherwise also generally more distressed and dysregulated, as compared with youth who are more moderately aggressive and tend to engage in reactive aggression only, and youth who have low levels of aggression. The study is strengthened by the person-centered approach to data analysis, by the large sample, by focusing on girls who have been much less studied than boys, and by the clear rationale for the study. In my view, this manuscript will make a nice contribution to the literature.

There are two areas to address to strengthen the paper a bit more. First, it is recommended that the authors provide more information about the selection of the cluster solution. That is, no information is available in the present manuscript about alternative cluster solutions from the analysis, for example, the extent to which BIC and the silhouette coefficient differed for other solutions and so forth. It would help the reader to have some information available as a way of arguing more strongly that the accepted solution (which does make theoretical and empirical sense) is the strongest grouping.

Second, the manuscript should be carefully edited as there are a fair number of grammatical and typographical errors, including lack of subject-verb agreement in places (e.g., using “were” and “was” in the same sentence, both referring to the same measure - CU traits), omitted words, and so forth.

Overall, this is a nice paper that looks to make a contribution.

#### *Round 1: Author Response to Reviewer 2*

In my view, this manuscript will make a nice contribution to the literature.

Thank you.

First, it is recommended that the authors provide more information about the selection of the cluster solution. That is, no information is available in the present manuscript about alternative cluster solutions from the analysis, for example, the extent to which BIC and the silhouette coefficient differed for other solutions and so forth. It would help the reader to have some information available as a way of arguing more strongly that the accepted solution (which does make theoretical and empirical sense) is the strongest grouping.

This is now provided in the results section.

Second, the manuscript should be carefully edited as there are a fair number of grammatical and typographical errors, including lack of subject-verb agreement in places (e.g., using “were” and “was” in the same sentence, both referring to the same measure - CU traits), omitted words, and so forth.

Thank you! I have now carefully read and edited the paper.

#### *Round 1: Reviewer 3 Report and Author Response*

The goal of this study was to distinguish subgroups of relationally aggressive females (i.e., reactively aggressive-only subgroup, reactively-and-proactively aggressive-combined subgroup, non-aggressive subgroup), on the basis of nine factors reflecting individual characteristics, peer-related variables and

parental control. Despite the use of a relatively large sample and of sound measures, this study falls short of making an important contribution to the current literature for several reasons.

1. Although the rationale for selecting each of the 9 factors that might be differentially related to reactive or proactive relational aggression is convincing, the overall picture is incomplete on at least two accounts. First, some factors (i.e., CU traits) may be predictors whereas others (i.e., delinquency) may be correlates or consequences of relational aggression. If the authors are really interested in the processes that could feed into reactive or proactive relational aggression in females, they should have been more attentive to this issue. Second, the authors do not mention why they implicitly selected an additive model (i.e., each factor makes a unique and independent contribution) instead of, for example, an interactional model (i.e., peer and parent factors potentiate the link between individual factors and subtypes of relational aggression).
2. The use of a cross-sectional design is a major limitation, because it cannot help determine the directionality of the links between the nine factors and subtypes of relational aggression, left alone causality. This bears directly on the issue of predictors vs. correlates vs. consequences of subtypes of relational aggression. Given the severe limitations of their cross-sectional design, the authors need to revise their comments with respect to directionality and their use of causality terms throughout the manuscript.
3. All the measures are self-reported. This artificially inflates the link between the study variables. Acknowledging this problem in the limitations does not solve it. Some measures such as self-reports of peers' delinquency are also flawed because of a possible projection bias.
4. Creating groups based on a cluster analysis may have created unnecessary problems. In particular, and contrary to what the authors seem to believe, it is not possible to know whether differences between the two aggressive groups reflect differences in levels of relational aggression or in type of relational aggression (reactive only vs. combined), given that the combined group is obviously much more aggressive than the reactive-only group. A better strategy would have been to predict each type of aggression while controlling its overlap with the other type (i.e., include reactive aggression when predicting proactive aggression and vice-versa).
5. Some findings are difficult to reconcile with the current literature; in addition, they are internally inconsistent. For example, how to explain that the combined group is not more delinquent than the reactively aggressive group although they report more CU traits and more delinquent peers, two known factors in regard to delinquent behaviors?
6. There are a number of grammatical and lexical problems throughout the manuscript that need to be taken care of.

#### *Round 1: Author Response to Reviewer 3*

First, some factors (i.e., CU traits) may be predictors whereas others (i.e., delinquency) may be correlates or consequences of relational aggression.

True that we do not know the direction of effects. Here, we use predictor in the statistical sense not causal sense.

Second, the authors do not mention why they implicitly selected an additive model (i.e., each factor makes a unique and independent contribution) instead of, for example, an interactional model.

We agree this would be useful but it was not our aim to look at interactions. We also believe interactions such as suggested are better done in longitudinal studies where one can examine moderators.

Given the severe limitations of their cross-sectional design, the authors need to revise their comments with respect to directionality and their use of causality terms throughout the manuscript.

We have attempted to be mindful of causal language and only use it where prior research indicates a direction.

Some measures such as self-reports of peers' delinquency are also flawed because of a possible projection bias.

We agree this is a major flaw and we thank the reviewer for pointing out projection bias. We now include this in the limitations in the discussion.

A better strategy would have been to predict each type of aggression while controlling its overlap with the other type (i.e., include reactive aggression when predicting proactive aggression and vice-versa).

We agree with the reviewer that there is no easy answer to this problem. We now include a discussion of this in the introduction and cite Lynam and colleagues on this exact dilemma. In their paper, they discuss the Perils of Partialing (p.4, line 15), which is what you do when you control for the overlap. That is, one may be removing the reliable aspect of the self-report measures of aggression (when they are highly correlated) and remaining with residual error.

For example, how to explain that the combined group is not more delinquent than the reactively aggressive group although they report more CU traits and more delinquent peers, two known factors in regard to delinquent behaviors?

The reactive aggressive group did not differ from the combined group on peer delinquency. Thus, both were high on delinquency and peer delinquency. Also, we comment on the overlap between peer delinquency and self-report of delinquency in the results section (p.9, line 14).

There are a number of grammatical and lexical problems throughout the manuscript that need to be taken care of.

We have carefully edited the paper.

#### Round 1: Reviewer 4 Report and Author Response

Interesting paper!! Below are a few comments that could hopefully help improve a solid piece of work.

1. The first two sentences of the abstract throw quite a bit of information at the reader, particularly as in the third sentence, it does not appear that all types of aggression will be assessed in the manuscript, but other constructs are introduced (contextual factors). Then, when the authors state the objectives of the study (in next sentence) CU, delinquency and peer influence is introduced.

- a. Could the authors simplify the abstract? Is there a cohesive narrative that could bind the different constructs together?
  - b. As it is, this reviewer had difficulty following the variables as predictors/outcomes and the hypotheses that are driving the paper
2. There are enough variables that I had a hard time following the analyses. A tighter focus in the intro and matching of analyses to hypotheses may help here.

*Round 1: Author Response to Reviewer 4*

The manuscript has been edited for grammar problems and for clarity. We have also added Table 1 to assist with understanding our predictors and the broader factors they represent in this study.

**Second Round of Evaluation**

*Round 2: Reviewer 4 Report*

I think the paper is improved. But I do not feel that the authors responded in great detail to my comments.

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