

**Summary of revisions to:
“False positives using social cognitive mapping to identify children’s peer groups”
(Manuscript ID 1204359)**

Dear Dr. van Ravenzwaaij,

Thank you for the opportunity to revise and resubmit this manuscript under *Collabra*'s 'streamlined review' process. In this letter, we briefly outline our requested revisions.

1 Please include at least a paragraph in the discussion section about different operationalisations of peer groups.

We were concerned that placing this in the discussion section would come too late in the paper. Therefore, we have created a new first subsection in the background section titled “How are peer groups measured?” This new section reviews five operationalizations of peer groups, thereby situating social cognitive mapping (the operationalization we focus on in this paper) in the wider peer group measurement literature.

2 Please elaborate on the analysis for $T = 0.5$ you have conducted, specifically in the context of the Cairns & Cairns data. It would be good for readers to have at least an intuition on what it gains (in terms of false positives) but what it can potentially cost (for which the Cairns & Cairns is one of the few ways to illustrate).

We have discovered that contrary to reports in the literature, users cannot specify a value of T in the SCM 4.0 software; T is fixed at 0.4. To examine whether alternative values of T could overcome the challenges with SCM that we identify in studies 2 and 3, we first develop our own implementation of SCM 4.0 in R (this is approximate, since SCM 4.0 is a black-box software), then repeat studies 1 and 2 for all possible values of T . We report this sensitivity test in Appendix A, where we find that using a different T can reduce SCM's false positive rate, but does so at the expense of also reducing its true positive rate. Therefore, using a different T does not offer a solution.

3 Please make explicit your attempts to contact the original creators and software developers of SCM 4.0. I have to say, as an outsider I find it hard to understand how a black-box program for which seemingly no-one knows how it works is the norm in a field, but as it is, the best that can be done here is to document for the reader you have done all you can to uncover this information.

The revised paper explains that the SCM 4.0 software “has been used in at least 42 published studies to identify peer groups. Although we do not know exactly how SCM 4.0 performs the final ‘group identification’ step, in our analyses below we simply use the output generated by the program.” We now include the following footnote attached to this sentence: “The user’s guide dated 20 August 1998 does not contain this information. We attempted to contact both the developer listed in the user’s guide (Man-Chi Leung) and the developer identified in the software (Anthony Alston), but were unable to reach either of them.”