

**CODING MANUAL FOR META-ANALYSIS ON IMPLICIT MEASURES OF SEXUAL INTEREST IN CHILDREN**

**Kevin L. Nunes, Chantal A. Hermann, Cathrine Pettersen, and Kristen White**

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## CODING MANUAL

**Study Admissibility:** To be included in the meta-analysis on implicit measures of sexual interest in children, the study has to meet the following criteria:

- Include an implicit measure designed to assess sexual interest in children
- Include an identifiable sample of males
- Include male sexual offenders against children (SOC) or pedophiles
- Report sufficient statistical information to calculate an effect size ( $d$  or  $r$ )
- Case studies were excluded from this meta-analysis

**SOC:** Sexual offenders against children (SOC) groups are defined as offenders with child victims (victim age  $\leq$  16 years old when sexual offending began, and, if the offender and victim seem to be too similar in age [e.g., siblings, adolescent offenders] then only include the SOC sample if the offender was at least 5 years older than victim). A group of SOC is classified as one of the subgroups below if it consists of **75% or more** of offenders who fit the criteria listed below:

- SOC-AM = sexual offenders against children with **any male** child victims
- SOC-M = sexual offenders against children with **exclusively male** child victims
- SOC-F = sexual offenders against children with **exclusively female** child victims
- SOC-E = sexual offenders against children with **any extrafamilial** child victims
- SOC-I = sexual offenders against children with **exclusively intrafamilial** child victims
- SOC-EM = sexual offenders against children with **any** unrelated **male** child victims
- SOC-EF = sexual offenders against children with **exclusively unrelated female** child victims
- SOC-IM = sexual offenders against children with **exclusively intrafamilial** male child victims
- SOC-IF = sexual offenders against children with **exclusively intrafamilial** female child victims

**Study Identification:** Each study that met the above criteria is identified by listing the authors and year; e.g., “Jones, Smith, Bobo, & Stevens (2005) Study 2”.

For each study, only complete one coding form, but use as many effect size sheets as needed. The coding form includes study characteristics, group characteristics, and effect size information.

Only code effect size information for comparisons or associations for which

- sufficient statistical information is available to calculate an effect size ( $d$  or  $r$ ). For example, if a comparison is described only as “non-significant”, with no means, standard deviations, test statistics, or  $p$  values reported, then you would ignore this comparison.
- the “child” category in the implicit measure score consists exclusively of children  $\leq$  16 years old. For example, you would code a comparison between SOC and NON-SOC on viewing time of pictures of children 11-16 years old, but not if the viewing time score was for pictures of children ranging from 11-18 years old.

**Study Characteristics**

- The year the study was published/completed.
- Note if there are overlapping samples across different studies. For example, a correlation between viewing time and PPG reported for a sample of 20 SOC in an article published in 2009 would not be independent from a correlation for a sample of 40 SOC (including 15 of the 20 SOC from the 2009 article) in an article published in 2013. Try to code studies by the same authors together at the same time so that you have the best chance of detecting overlapping samples between the studies.
- Whether the study is published or unpublished.
  - Published studies include peer reviewed journal articles and book chapters.
  - Unpublished include government report, web sites, thesis/dissertation, conference presentations, and unpublished manuscripts
- The country where the study originated. Check where the sample was recruited from. In cases where data are from multiple countries, use the country from which 75% or more of the participants were recruited from. If that is not available, use location of first author.
- The largest final sample size reported for SOC and the comparison group
- The type of institution or setting the participants were selected from

**Group Characteristics**

- Groups present in the study that you will use for the effect sizes to be coded – code for all available groups, whether independent or not
  - For example, there may be several subgroups in the sample, but if the authors report results such that you can only code effect sizes involving two broad groups (e.g., SOC vs. NON-SOC), then you would just record SOC and NON-SOC as your groups.

<b>SOC = sexual offenders against children</b>	<b>NON-SOC = anyone who has not sexually offended against children</b>
SOC-AM = sexual offenders against children with <b>any male</b> child victims	SOA = sexual offenders against adults
SOC-M = sexual offenders against children with <b>exclusively male</b> child victims	NSO = non-sexual offenders
SOC-F = sexual offenders against children with <b>exclusively female</b> child victims	NO-COM = non-offenders, community participants
SOC-E = sexual offenders against children with <b>any extrafamilial</b> child victims	NO-STU = non-offenders, students
SOC-I = sexual offenders against children with <b>exclusively intrafamilial</b> child victims	
SOC-EM = sexual offenders against children with <b>any unrelated male</b> child victims	Other (e.g., sexual offenders with both child and adult victims)
SOC-EF = sexual offenders against children with <b>exclusively unrelated female</b> child victims	
SOC-IM = sexual offenders against children with <b>exclusively intrafamilial male</b> child victims	
SOC-IF = sexual offenders against children with <b>exclusively intrafamilial female</b> child victims	

- The method for identifying SOC groups
- Victim age criteria for SOC group
- The method for identifying comparison groups
- Mean, minimum, and maximum victim age
- Any male victims (and percentage)
- Any unrelated victims (and percentage)
- Number of sex offences against children (and percentage)
- Number of child victims (and percentage)
- Proportion diagnosed with pedophilia
- Proportion admitting to sexual offence or pedophilic interest
- Offender age

### **Reliability of Implicit Measure of Sexual Interest**

- Internal consistency of implicit measures of sexual interest (by group if available)
- Test-retest reliability of implicit measures of sexual interest (by group if available)

### **Effect Size**

Comprehensive meta-analysis program is used to compute  $d$  and/or  $r$ . Include up to 3 digits after the decimal point for effect size information and internal consistency information.

When comparing SOC to any comparison group, we will ultimately have positive effect sizes indicating greater pedophilic interest for the SOC group. For example, for a comparison of SOC to non-SOC, a Cohen's  $d$  of 0.62 would indicate that the SOC had more pedophilic scores than non-SOC, whereas a Cohen's  $d$  of -0.62 would indicate that the SOC had less pedophilic scores than non-SOC. This will be important to keep in mind when entering the data into Comprehensive Meta-Analysis and choosing the direction of the effect.

Only implicit measures of sexual interest in children are coded. We also record the page number and table number from which the information is coded. This information helps when checking reliability and accuracy to ensure we are coding from the same information.

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**GENERAL INSTRUCTIONS**

Draw a line through any cells for which the required information is not applicable or available.

**STUDY (FULL REFERENCE)**

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**GENERAL NOTES (e.g., anything unusual)**

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**STUDY CHARACTERISTICS**

<b>STUDY:</b>		
<b>STUDY YEAR:</b>		
<b>PUBLICATION STATUS:</b>	PUBLISHED	UNPUBLISHED
<b>ANY OVERLAP WITH SAMPLE(S) FROM ANOTHER STUDY?</b>	YES	NO
<ul style="list-style-type: none"> <li>• IF YES, GIVE REFERENCE FOR OTHER STUDY?</li> </ul>		

**STUDY LOCATION:**

Canada	Australia	Switzerland	Netherlands (Holland)
U.S.	Finland	France	Scotland
United Kingdom	Italy	Denmark	Other (specify)
Germany	New Zealand	Norway	

**WHERE SAMPLE WAS RECRUITED FROM:**

<b>SOC SAMPLE LOCATION:</b>	<b>COMPARISON SAMPLE LOCATION:</b>
Prison	Prison
Secure forensic psychiatric hospital	Secure forensic psychiatric hospital
Community	Community
Other (Specify):	Other (Specify):
Unknown	Unknown

**GROUP CHARACTERISTICS**

**GROUPS:** Circle all of the groups present in the study and report their sample size. Use these acronyms to refer to the groups throughout the coding sheets.

<b>SOC = sexual offenders against children</b>	<b>NON-SOC = anyone who has not sexually offended against children</b>
SOC-AM = sexual offenders against children with <b>any male</b> child victims	SOA = sexual offenders against adults
SOC-M = sexual offenders against children with <b>exclusively male</b> child victims	NSO = non-sexual offenders
SOC-F = sexual offenders against children with <b>exclusively female</b> child victims	NO-COM = non-offenders, community participants
SOC-E = sexual offenders against children with <b>any extrafamilial</b> child victims	NO-STU = non-offenders, students
SOC-I = sexual offenders against children with <b>exclusively intrafamilial</b> child victims	
SOC-EM = sexual offenders against children with <b>any</b> unrelated <b>male</b> child victims	Other (e.g., sexual offenders with both child and adult victims)
SOC-EF = sexual offenders against children with <b>exclusively unrelated female</b> child victims	
SOC-IM = sexual offenders against children with <b>exclusively intrafamilial</b> male child victims	
SOC-IF = sexual offenders against children with <b>exclusively intrafamilial</b> female child victims	

**SOC GROUP(S): HOW DO YOU KNOW THEY OFFENDED AGAINST CHILDREN OR ARE ATTRACTED TO CHILDREN?**

Any history of SOC (index or prior)
Index offence is for SOC
Exclusively sexual offences against children in criminal history (index and prior)
Self-reported sexual offending against children
Self-reported sexual interest in children
Other (specify)
Unknown

**NON-SOC GROUP(S): HOW DO YOU KNOW THEY HAVE NOT OFFENDED AGAINST CHILDREN OR ARE NOT ATTRACTED TO CHILDREN? (Please circle all that apply):**

Exclusively non-sex offences in criminal history (index and prior)
Index offence is a non-sex offence
No sexual offences against children in criminal history (index or prior)
No self-reported sexual offending against children
No self-reported sexual interest in children
Other (specify)
Unknown



Group	Contact offenders with at least one male victim	Contact offenders with at least one unrelated victim	Number of sexual offences against children	Number of child victims	Offenders with a pedophilia diagnosis	Offenders admitting to sexual offence or pedophilic interest	Participants' age
	--% All > 75% > 50% < 50% < 25% None	--% All > 75% > 50% < 50% < 25% None	M=  Min=  Max=	M=  Min=  Max=	--% All > 75% > 50% < 50% < 25% None	--% All > 75% > 50% < 50% < 25% None	M=  Min=  Max=
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**GROUP COMPARISONS**

**Group comparison effect sizes are effect sizes for the difference between two groups on a measure of implicit sexual interest in children.**

**Implicit Measure<sup>a</sup>:** For each type of effect size, write the acronym for the implicit measure in the implicit measure box.

Implicit Association Test (IAT)	Stroop	Semantic Misattribution Procedure (SMP)
Viewing Time (VT)	Rapid Serial Visual Presentation (RSVP)	Lexical Decision Task (LDT)
Choice Reaction Time (CRT)	Implicit Relational Assessment Procedure (IRAP)	Other (specify)

**Name of Implicit Measure<sup>b</sup>:** For each type of effect size, please write the authors’ name of the implicit measure in the name of implicit measure box. For example, Nunes and colleagues may have conducted a study examining differences between sexual offenders against children and rapists on the ‘sexy child IAT’ – you would write ‘sexy child IAT’.

**Sexual Interest Gender<sup>c</sup>:** For each type of effect size, please list the gender assessed by the implicit measure.

Sexual Interest in Girls (Girls)	Sexual Interest in Children (Child)
Sexual Interest in Boys (Boys)	Not Applicable

**Direction of Score<sup>d</sup>:** For each type of effect size, please list the direction of scoring for the implicit measure.

More <b>positive</b> scores represent greater implicit sexual interest in children (Positive)	More <b>negative</b> scores represent greater implicit sexual interest in children (Negative)
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**Nature of Score<sup>e</sup>:** For each measure of sexual interest, note whether the score is **relative** or **absolute** in nature. Relative scores are ones that are indicators of sexual interest to one gender/age group relative to another gender/age group. For example, scores could indicate sexual interest to boys relative to men. Often relative score are difference scores. Absolute scores are indicators of sexual interest to just one gender/age group. For example, sexual interest in boys. Write “**NA**” if not applicable.

**Link #:** Indicate if each effect size is independent from the other effect sizes coded from the same study by entering the same number for non-independent effect sizes (e.g., 1, 1, 1,) but different numbers for independent effect sizes (e.g., 1, 2, 3). **Non-independence:** effect sizes that involve partly or completely overlapping samples across SOC group, comparison group, or measures. For example, an effect size for a comparison between SOC-E and NON-SOC and another effect size for a non-overlapping group of SOC-I and the **same group of NON-SOC** would be non-independent. Similarly, an effect size for a comparison between the same groups of SOC and NON-SOC on the **IAT** and another effect size for a comparison of the same groups of SOC and NON-SOC on **VT** would be non-independent. Similarly, an effect size for a comparison between **SOC** and NSO and another effect size for the same group of **SOC** and a non-overlapping group of

NO-COM would be non-independent. So, basically if some or all of the same participants are involved in different effect sizes, they are non-independent even if they use different measures or some different subgroups of participants.

**Subgroup non-independent from broader group?** For any effect size involving a subgroup, indicate whether the subgroup is overlapping with the superordinate general group. Answer **yes** or **no**. For example, if effect sizes are available from one study for all SOC combined as well as for subsets of these SOC (e.g., the subset of SOC-E and the subset of SOC-I), then you would say “yes” to this question for both the SOC-E and SOC-I groups. However, if effect sizes are available from one study for an undifferentiated group of SOC as well as for a non-overlapping group of SOC-E, then you would say “no” for the SOC-E group.

**Groups:** The more pedophilic group belongs in group 1 and the less pedophilic group belongs in group 2. For example, for an effect size comparing SOC vs. SOA on an implicit measure of sexual interest in children, SOC information belongs in group 1 and SOA information belongs in group 2. Note: if an effect size is comparing SOC-E vs. SOC-I, SOC-E belongs in group 1 and SOC-I belongs in group 2. If an effect size is comparing SOC-M vs. SOC-F, SOC-M belongs in group 1 and SOC-F belongs in group 2. **For each group fill out the Mean, SD, and sample size (n) boxes.**

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SOC-AM = sexual offenders against children with <b>any male</b> child victims	SOA = sexual offenders against adults
SOC-M = sexual offenders against children with <b>exclusively male</b> child victims	NSO = non-sexual offenders
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SOC-I = sexual offenders against children with <b>exclusively intrafamilial</b> child victims	Other (e.g., sexual offenders with both child and adult victims)
SOC-EM = sexual offenders against children with <b>any</b> unrelated <b>male</b> child victims	
SOC-EF = sexual offenders against children with <b>exclusively unrelated female</b> child victims	
SOC-IM = sexual offenders against children with <b>exclusively intrafamilial</b> male child victims	
SOC-IF = sexual offenders against children with <b>exclusively intrafamilial</b> female child victims	

**Statistic/Effect Size:** Record the effect size or statistic that was reported in the study. If an effect size or statistic (other than the mean and SD) was not reported, just draw a line through the effect size/statistic cells.

Cohen’s d: d = ...(95% CI)	Correlation (r): r = ...	ANOVA: f = ..., df (x, x)
ROC AUC: AUC = ...(95% CI)	t-test: t = ... df(x)	Other (specify)



**ASSOCIATION WITH INDICATORS OF PEDOPHILIC INTEREST**

**Associations with indicators of pedophilic interest** are effect sizes that indicate the relationship between two measures of pedophilic interest, where at least one measure is an implicit measure of sexual interest. Also code associations between two different implicit measures of pedophilic interest.

**Measure Type<sup>a</sup>:** For each effect size, please write the acronyms of the measures of pedophilic interest.

Implicit Association Test (IAT)	Semantic Misattribution Procedure (SMP)	Number of child victims
Viewing Time (VT)	Lexical Decision Task	Male child victims
Choice Reaction Time (CRT)	Screening Scale for Pedophilic Interests (SSPI)	Unrelated child victims
Stroop	Self-reported sexual interest in children (e.g., ESIQ, SIPS)	Child pornography
Rapid Serial Visual Presentation (RSVP)	PPG	Other (specify)
Implicit Relational Assessment Procedure (IRAP)	Number of sexual offences against children	

**Name of Measure<sup>b</sup>:** For each type of effect size, please write the authors’ name of the measure in the name of measure box. For example, Nunes and colleagues may have conducted a study examining the relationship between the sexy-child IAT and PPG – please write ‘sexy-child IAT’ for the IAT measure and ‘PPG’ for the PPG measure.

**Sexual Interest Gender<sup>c</sup>:** For each type of effect size, please list the gender assessed by the measure of sexual interest.

Sexual Interest in Girls (Girls)	Sexual Interest in Children (Child)
Sexual Interest in Boys (Boys)	Not Applicable

**Direction of Score<sup>d</sup>:** For each type of effect size, please list the direction of scoring for the measure of sexual interest.

More <b>positive</b> scores represent greater implicit sexual interest in children (Positive)	More <b>negative</b> scores represent greater implicit sexual interest in children (Negative)
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**Nature of Score<sup>e</sup>:** For each measure of sexual interest, note whether the score is **relative** or **absolute** in nature. Relative scores are ones that are indicators of sexual interest to one gender/age group relative to another gender/age group. For example, scores could indicate sexual interest to boys relative to men. Often relative score are difference scores. Absolute scores are indicators of sexual interest to just one gender/age group. For example, sexual interest in boys. Write “NA” if not applicable (e.g., for the SSPI).

**Subgroup non-independent from broader group?** For any effect size involving a subgroup, indicate whether the subgroup is overlapping with the superordinate general group. Answer **yes** or **no**. For example, if effect sizes are available from one study for all SOC combined as well as for subsets of these SOC (e.g., the subset of SOC-E and the subset of SOC-I), then you would say “yes” to this question for both the SOC-E and SOC-I groups. However, if effect sizes are available from one study for an undifferentiated group of SOC as well as for a non-overlapping group of SOC-E, then you would say “no” for the SOC-E group.

**Group<sup>f</sup>:** For each effect size, list all of the groups included in the effect size.

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SOC-I = sexual offenders against children with <b>exclusively intrafamilial</b> child victims	
SOC-EM = sexual offenders against children with <b>any unrelated male</b> child victims	Other (e.g., sexual offenders with both child and adult victims)
SOC-EF = sexual offenders against children with <b>exclusively unrelated female</b> child victims	
SOC-IM = sexual offenders against children with <b>exclusively intrafamilial</b> male child victims	
SOC-IF = sexual offenders against children with <b>exclusively intrafamilial</b> female child victims	

**Statistic/Effect Size:** Record the effect size or statistic that was reported in the study. If an effect size or statistic (other than the mean and SD) was not reported, just draw a line through the effect size/statistic cells.

Cohen’s d: d = ...(95% CI)	Correlation (r): r = ...	ANOVA: f = ..., df (x, x)
ROC AUC: AUC = ...(95% CI)	t-test: t = ... df(x)	Other (specify)

