Coding Instructions

Retractions have to be categorized into 7 categories (A).
Also, if possible, the responsible author has to be identified (B).

A) Retraction Categories

Preliminary notes

Using background information. The coding should be based primarily on the "Retraction Note" published by the respective journal. However, in some cases, the retraction notes only refer to the results of an official investigation or the report of some institutional committee and do not explicate the reasons for retraction. In other cases, the retraction notes remain quite vague. In these cases, you should base your categorization (additionally) on a search of the following database:

http://retractiondatabase.org/RetractionSearch.aspx

Please indicate in the Coding Sheet whenever you did use this database (or any other background information).

Coding of multiple retraction reasons. If there are multiple reasons for retracting an article allowing the coding of different categories, choose the most severe reason (as emphasized by the retraction note). If the most severe reason cannot be identified, choose the first reason given in the retraction note. In any case, note down the other reasons (code) in the "Comments" field of the Coding Sheet.

Category	Examples
1. Fraud **Description** Data fraud; data falsification; biasing design	**Data fraud, data falsification, biasing design** Allegations of data fraud, including data falsification, fabrication or manipulation, or intentionally biasing research design to favor a particular outcome (e.g., to obtain significant results)
2. Plagiarism **Description** Plagiarism; self-plagiarism, duplicate publication	**Plagiarism** Plagiarism (text, figures…) from works of others, when no common authors exist between the two publications **Duplicate publication, self-plagiarism** Author-initiated multiple publication ("duplicate publication") where the separate submissions or publications have at least one author in common; cases of "self-plagiarism" or re-publishing one's own data previously published elsewhere, without acknowledgment of the original publication/source or permission from the copyright holder) **Plagiarism or Self-plagiarism (but unclear which one)** Duplicated publication - but not specified or unclear whether works of others or own works have been plagiarized
3. Other misconduct **Description** e.g., authorship issues; legal issues etc.	**Authorship issues** Failure to consult or inform all listed authors about the submission of the publication, or excluding authors who contributed substantially to the work, or dispute about the order of authors, etc. **Copyright issues, legal concerns** Publication/use of materials without permission of copyright owner, violation of intellectual property rights, (vague) legal concerns, etc.

	Other (specified) research misconduct Other specified author misconduct, such as failure to obtain ethical approval or informed consent, privacy concerns, wrong/fake references, undisclosed competing interests, etc. **Unspecified research misconduct** Retraction because of unspecified author misconduct (just misconduct, no specification/explanation about the nature of this misconduct)
4. "Error" **Description** Honest error; dubious error (maybe unproven misconduct)	**Honest error (distrust data or interpretations, scientific errors)** Distrust data or interpretations, meaning that the data or interpretations as published are no longer considered valid or reliable by some or all of the authors. Cases of unexplained data irreproducibility or experimental/methodical artifacts discovered post-publication. Misconduct (data falsification, fabrication of results, etc.) is either explicitly excluded or implicitly excluded by giving other (honest) explanations for scientific errors (e.g., undiscovered programming errors). **Other or unspecified "errors"** Different forms of "errors" and "mistakes" (data, coding, methodological, data analysis) by authors, where intentional falsification or fabrication (misconduct) is neither negated nor affirmed, but is at least compatible/consistent with the stated reasons.
5. Publisher error **Description** e.g., article published in wrong issue or wrong journal	**Duplicate publication** Accidental duplicate publication (in the same or a different journal of the same publisher) **Preliminary version** Preliminary version accidentally published (e.g., ''version without final author corrections'') **Wrong journal** Published in wrong journal **Wrong issue/section** Accidentally published in either a special or regular issue, though intended for the other or another special section/issue **Other/unspecified publisher error** Publisher errors that do not fit into the other publisher, e.g., article was rejected but subsequently published in error; other errors by publishers - but kind of error not specified, etc.
6. Other reasons **Description** Reason for retraction not matching any other category	**Unclear/other responsibilities** Errors that cannot be attributed to either author(s) or publisher(s) alone (e. g. corrupted review system) **Compromised review system/Peer review fraud**
7. No reason given **Description** No reason specified	**No explanation/justification** No reason given justifying the retraction

B) Responsible Author Identification

In some cases of co-authored articles, the author(s) responsible for the retraction is (are) identified in the retraction note. In these cases, please list this author (these authors) under "Responsible Author(s)". In all other cases, leave this field empty.