Introduction
Backtracking distracts paragraph order by inducing re-reading previous text. Such backtracking is a more serious distraction when it occurs between sentences than within sentences, because the distance between a referent (pronoun or synonym) and its antecedent is longer inter-sentence than intra-sentence.

Pronoun-induced backtracking
The neutral personal pronoun (*it*), the indefinite pronoun (*both* and others), and demonstrative pronouns (*this, that*) – all of which are inherently inexplicit and common in research writing – necessitate referring back to an antecedent (i.e., a noun or previous textual information).

**Part 1 – Personal pronoun-induced backtracking**

*Example: Introduction section, hypothesis justification*

As described in case reports, root coverage is extensive by the Vestibular Incisor Subperiosteal Access (VISTA) technique. Furthermore, VISTA provides evident biological advantages.

**Revision (antecedent abbreviation)**

As described in case reports, root coverage is extensive by the Vestibular Incisor Subperiosteal Access (VISTA) technique. Furthermore, VISTA provides evident biological advantages.

**Notes**

The antecedent for *it* could be root coverage or it could be the VISTA technique. Using the antecedent abbreviation VISTA clarifies the antecedent whilst avoiding repetition of Vestibular Incisor Subperiosteal Access.

**Part 2 – Indefinite pronoun-induced backtracking**

*Example: Introduction section, objective + experimental approach*

Therefore, this relation can be modelled in a robust fashion and presented (1) to clarify the strength of the relation and (2) to resolve residual uncertainties about the relation. Bayesian hierarchical modelling is suitable for both purposes.

**Revision 2 (enumerated antecedent)**

Therefore, this relation can be modelled in a robust fashion and presented (1) to clarify the strength of the relation and (2) to resolve residual uncertainties about the relation. Bayesian hierarchical modelling is suitable for both purposes.

**Notes**

The indefinite adjectival pronoun *both* in combination with a noun *purposes* elicits a backtracking comparable to the personal pronoun *it*. Although the antecedents to *both* are fathomable, minimising backtracking enhances immediate comprehension. In Revision 1, to avoid backtracking, the *purposes* (*to clarify...to resolve*) are each restated in a noun form: *clarification and resolution*. In Revision 2, numbering is useful to forecast and emphasise the antecedents thereby facilitating backtracking.

**Part 3 – Demonstrative pronoun-induced backtracking**

*Example: Materials and Methods section, method*

The neurologic test scores were analysed by Cluster Analysis. *That* enabled subgroup identification for the sample of girls with AIS.

**Revision (syntactic reduction + sentence combining)**

The neurologic test scores were analysed by Cluster Analysis to enable subgroup identification for the sample of girls with AIS.
Notes
In the Revision, the second sentence beginning with that is transformed (syntactic reduction) + translocation (sentence combining) into an infinitive phrase, which conveys intent.

Placement of the infinitive phrase after the verb is preferred, because placement in an initial sentence position suspends the long infinitive phrase overly delaying the subject and verb of the sentence. To some readers, the infinitive phrase may be thought to dangle, that is, be devoid of a modifier, such as a neurologist. However, the phrase can function adverbially modifying were analysed. A test for this adverbial function is transposition of the phrase to after the verb, a position not plausible if the phrase were strictly adjectival. Clearly, the infinitive phrase is not modifying the noun phrase Cluster Analysis.

Part 4 – Demonstrative pronoun-induced backtracking
Example: Results section, data-based observation + preliminary interpretation
As shown by the superimpositions, the observed movement frequency was the most for rotation and the least for bodily movement. That was likely due to the remaining band space at debond.

Revision (summative concept)
As shown by the superimpositions, the observed movement frequency was the most for rotation and the least for bodily movement. That frequency difference was likely due to the remaining band space at debond.

Notes
Replacement of that with that frequency difference eliminates any doubt about the antecedent of that and minimises backtracking to identify the antecedent.

That (not this) seems contextually dictated by the past tense of the predicate was in the first sentence.

Synonym-induced backtracking
In research writing, the repetition of a word (usually a noun) as a synonym is often a distraction, because no two words have exactly the same meaning. Contrary to the advice that synonyms engender interest, synonym usage (i.e., synonymy) may be interesting but at the expense of continuity – synonymy is inconsistent.

Synonymy also elicits backtracking to the synonym antecedent.

Part 1 – Patients ... participants
Example: Materials and Methods section, method
Post-stroke patients (n=361) with mild to moderate upper extremity impairment were enrolled in the Interdisciplinary Comprehensive Arm Rehabilitation Evaluation (ICARE), a randomised controlled trial of arm intervention. After the trial, the patient-reported outcome (the Stroke Impact Scale) was completed by the participants.

Revision (expanded noun antecedent)
Post-stroke patients (n=361) with mild to moderate upper extremity impairment were enrolled in the Interdisciplinary Comprehensive Arm Rehabilitation Evaluation (ICARE), a randomised controlled trial of arm intervention. After the trial, the patient-reported outcome (the Stroke Impact Scale) was completed by the enrolled patients.

Notes
Instead of using the synonym participants, clarity is achieved by repetition of the antecedent patients in an expanded form (enrolled patients).

Part 2 – Disks ... samples
Example: Materials and Methods section, materials
Composite disks (5.0 mm thickness × 14 mm diameter; Paradigm MZ100) were cemented to the blocks using dual-cure resin cement (RelyX Ultimate). Samples were polymerised (40 s), artificially aged (20,000 thermal cycles), sectioned (0.8 ± 0.2 mm), and tested for micro-tensile bond strength.

Revision (expanded antecedent)
Composite disks (5.0 mm thickness × 14 mm diameter; Paradigm MZ100) were cemented to the blocks using dual-cure resin cement (RelyX Ultimate). Cememted disks were polymerised (40 s), artificially aged (20,000 thermal cycles), sectioned (0.8 ± 0.2 mm), and tested for micro-tensile bond strength.

Notes
Switching from disks to samples generates uncertainty. In a sequence of effects on an entity, explicitly denoting the change in the entity to an expanded form (e.g., disks to cemented disks) facilitates clarity and tempers the monotony of repetition.

Part 3 – Limited ... limitation
Example: Discussion section, hypothesis-support limitation
However, these results may have been limited by the current CBCT resolution to accurately delineate the maxillary cancellous bone. Another shortcoming was that the retromolar bone remodelling was only tested in the non-growing adult sample.

Revision (verb nominalisation)
However, these results may have been limited by the current CBCT resolution to accurately delineate the maxillary cancellous bone. Another limitation was that the retromolar bone remodelling was only tested in the non-growing adult sample.

Notes
Usage of the noun limitation is an effective example of thematic word echo to the verb limited.

Summary
Overall, the backtracking induced by an inter-sentence pronoun or synonym can be revised by replacement with an explicit but not redundant form of the antecedent (e.g., abbreviated or modified). Another revision option is to emphasise (e.g., enumerate) the antecedent to facilitate the backtracking.

The revision options for inter-sentence backtracking are similar to those for intra-sentence backtracking. However, because of the increased antecedent-referent distance, the rhetorical distraction is more impeded immediate comprehension than dissonance. Synonymy is inconsistency.

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Questions or comments about distracting syntax will be responded to, possibly in a subsequent column.