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MTO 23.3 Examples: Clarke, North Indian Classical Music and Lerdahl and Jackendoff

(Note: audio, video, and other interactive examples are only available online)

<http://www.mtosmt.org/issues/mto.17.23.3/mto.17.23.3.clarke.php>

Example 1. J.S. Bach “O Haupt voll Blut und Wunden,” BWV 244, as analyzed in *GTTM* (144; Example 6.25)

6.25

The image displays a musical score for J.S. Bach's "O Haupt voll Blut und Wunden" (BWV 244). At the top, a large tree diagram illustrates the hierarchical structure of the piece, with nodes labeled with letters: 'a' and 'b' at the top, branching down to 'c' and 'b'', then further to 'c', 'c'', 'd', and 'd'' in the next level, and finally to 'e', 'e'', 'f', and 'f'' at the bottom. Below the tree is a piano score with two staves. The score is annotated with various musical markings: 'f' (forte) at the beginning, and dynamic markings 'c', 'c'', 'd', and 'd'' corresponding to the tree diagram. The score is divided into measures, with brackets indicating groupings of 2, 4, and 8 measures, and a total measure count of 16. Below the piano score are five additional staves, each labeled with a letter: 'f', 'e', 'd', 'c', and 'b', representing different layers or components of the analysis.


Example 2. Prolongational reduction of opening of “O Haupt voll Blut und Wunden” (*GTTM*, 202; Example 8.31)

8.31



a

The image displays a musical score for piano, consisting of two staves (treble and bass clefs) with a key signature of two sharps (F# and C#). Above the score is a tree diagram with three levels of nodes, representing a hierarchical structure. The top node is a circle on a diagonal line. The second level has three nodes, and the third level has six nodes. Lines connect the nodes between levels, showing a branching structure. Below the score is a dashed oval that encompasses the first two staves, indicating a specific section of the music.

Example 3. Scale degrees with Sanskrit note names and abbreviations

Transnotation	
Abbreviation	Sa Re Ga Ma Pa Dha Ni
Sanskrit name	ṣaḍj riṣabh gāndhār madhyam pancham dhaivat niṣād

Example 4. Rāg Yaman scale—ascending (*āroh*) and descending (*avroh*)

(<i>āroha</i>)	(<i>avroh</i>)
	
Ni Re Ga Ma Dha Ni Sa	Sa Ni Dha Pa Ma Ga Re Sa

Example 5a. Transcription of *ālāp* from Vijay Rajput's performance of *Rāg Yaman* (*Twilight Raags from North India*, track 4) using *sargam* notation

Period 1

i NDS ————— ^N-D []
 0:12 0:15 0:20

ii ^DN ————— ^SN-^SNDN-D []
 0:22 0:25 0:30

iii ^RN^NDS ————— []
 0:32 0:35 0:40

iv ^{NRS}N ————— D []
 0:41 0:45

v ^{MDP}M — ^ND — ^NN — ^SSND []
 0:49 0:50 0:55

vi ^ND — S ————— ^AN^D — ^GR — ^RNDNR — NDS — []
 0:57 1:00 1:05 1:10

Period 2

vii ^{RSRS}N — ^GR — G ————— ^RGR — ^DN — ^{NR} — []
 1:13 1:15 1:20 1:25

viii ^RD — GR — ^SD — ^NNRD/S — ^{RSNS} []
 1:29 1:30 1:35 1:40 1:45

ix ^{NGRS}N — ^GR — G ————— ^SRG — RS — ^N — []
 1:46 1:50 1:55 2:00

x ^RN — ^{SNSD}N — ^GR — G — [] G — ^VG — ^VG — RS — ^{NSNS} []
 2:03 2:05 2:10 2:15 2:20

Period 3


xi ^SN — R — G — ^{SSNS}N — G — ^R [] ^GR — ^MM — ^GM — ^GR — ^RG — []
 2:23 2:25 2:30 2:35 2:40


xii ^MG — ^MG — P ————— ^MP — ^MR — G — []
 2:44 2:45 2:50 2:55 3:00


xiii (A) ^{MMGRGMPDPMPM}P — ^{MGR}G — ^VR — ^MG — ^GR — [] ^{GR} — [] ^{GRS} —
 3:01 3:05 3:10


Example 5b. Transnotation using Western staff notation


Period 1


i  0:12 S 0:15 0:20

ii  0:22 N 0:25 0:30


iii  0:32 S 0:35 0:40


iv  0:41 N 0:45

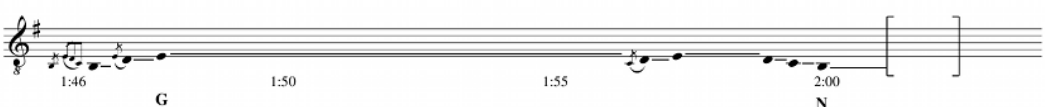
v  0:49 0:50 N 0:55


vi  0:57 S 1:00 (R) 1:05 (S) 1:10

Period 2


vii  1:13 G 1:15 1:20 R 1:25


viii  1:29 R 1:30 1:35 S 1:40 1:45

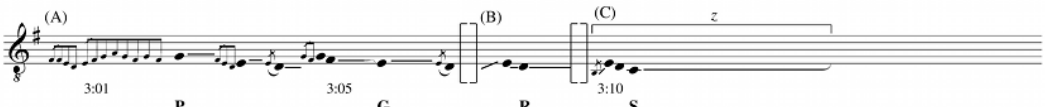
ix  1:46 G 1:50 1:55 N 2:00

x  2:03 G 2:05 (G) 2:10 2:15 S 2:20

Period 3

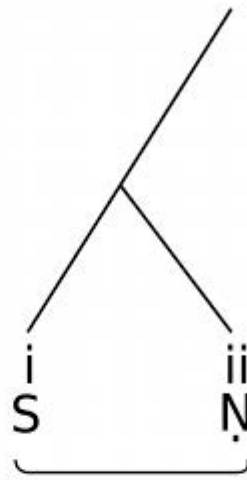
xi  2:23 G 2:25 (M) 2:30 2:35 G 2:40

xii  2:44 P 2:45 2:50 2:55 G 3:00

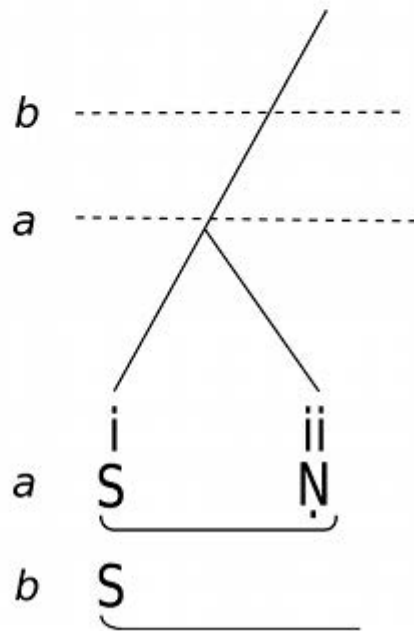
xiii  3:01 P 3:05 G 3:10 R 3:10 S

Example 6. Time-span reduction analysis of phrases i–ii of *ālāp*: (a) surface level (b) including next hierarchic level

(a)

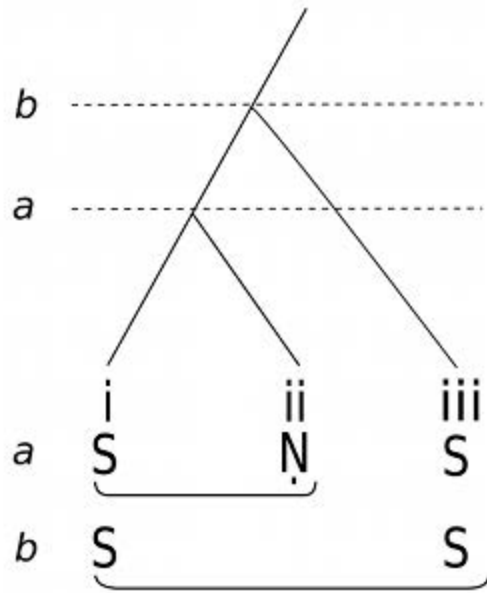


(b)

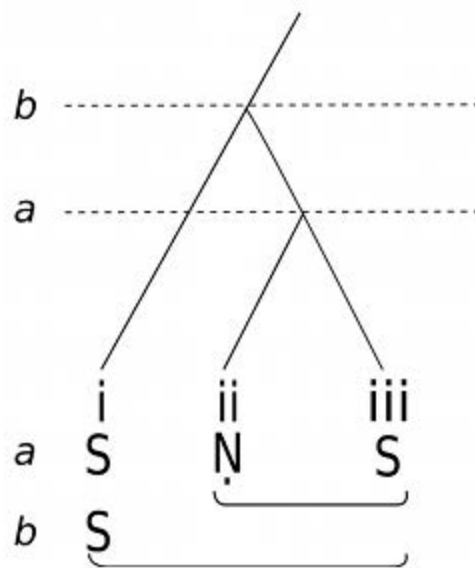


Example 7. Time-span reduction of phrases i–iii (alternative analyses)

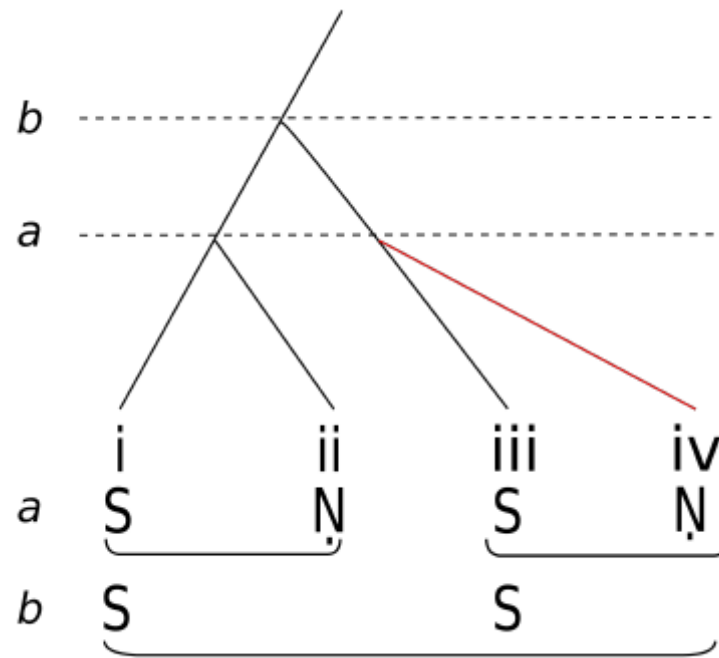
(a)



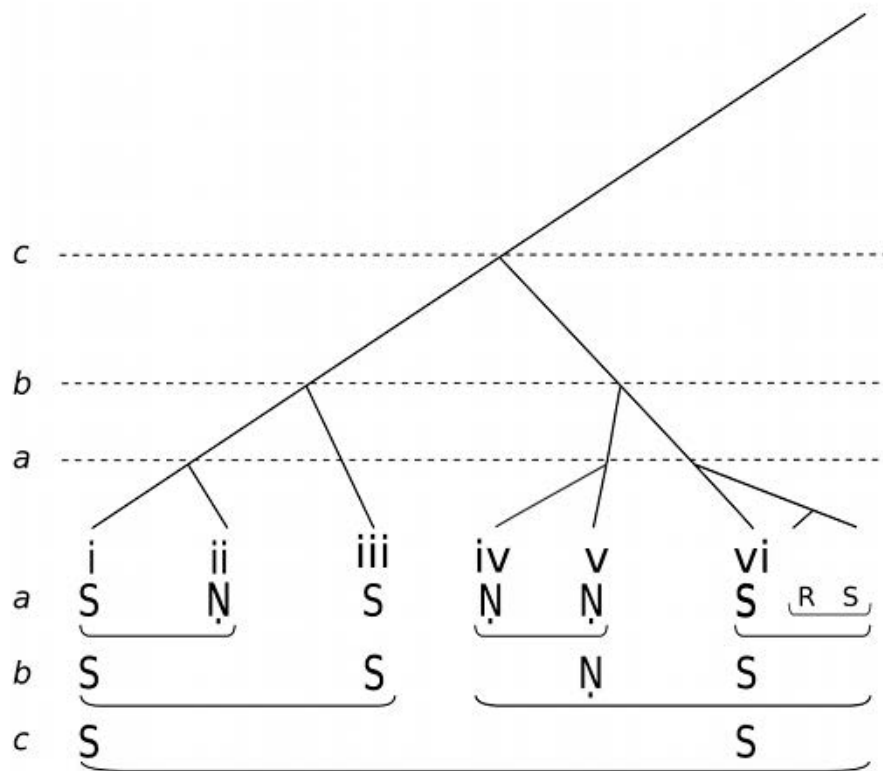
(b)



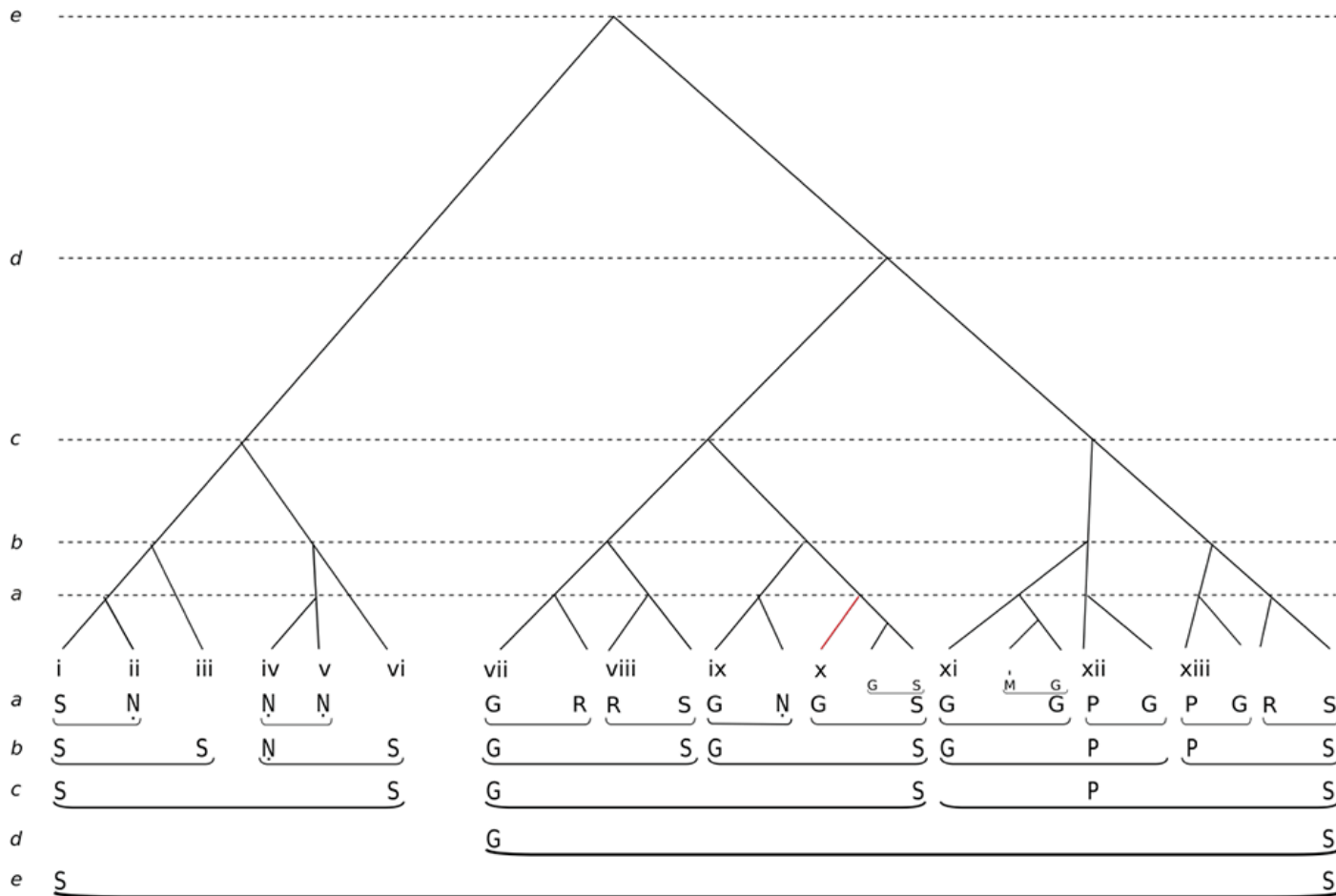
Example 8. Time-span reduction of phrases i–iv



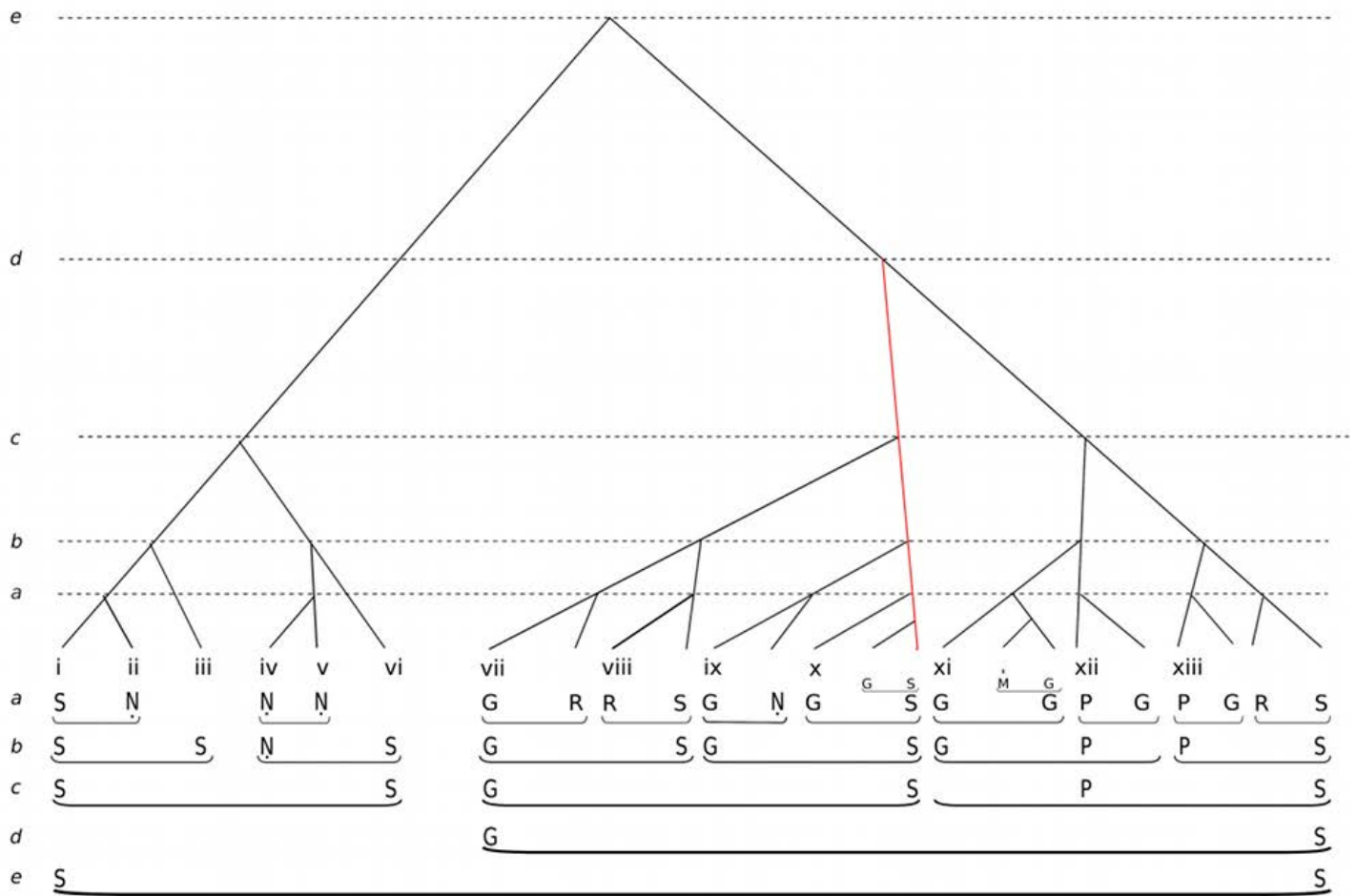
Example 9. Time-span reduction of phrases i–vi



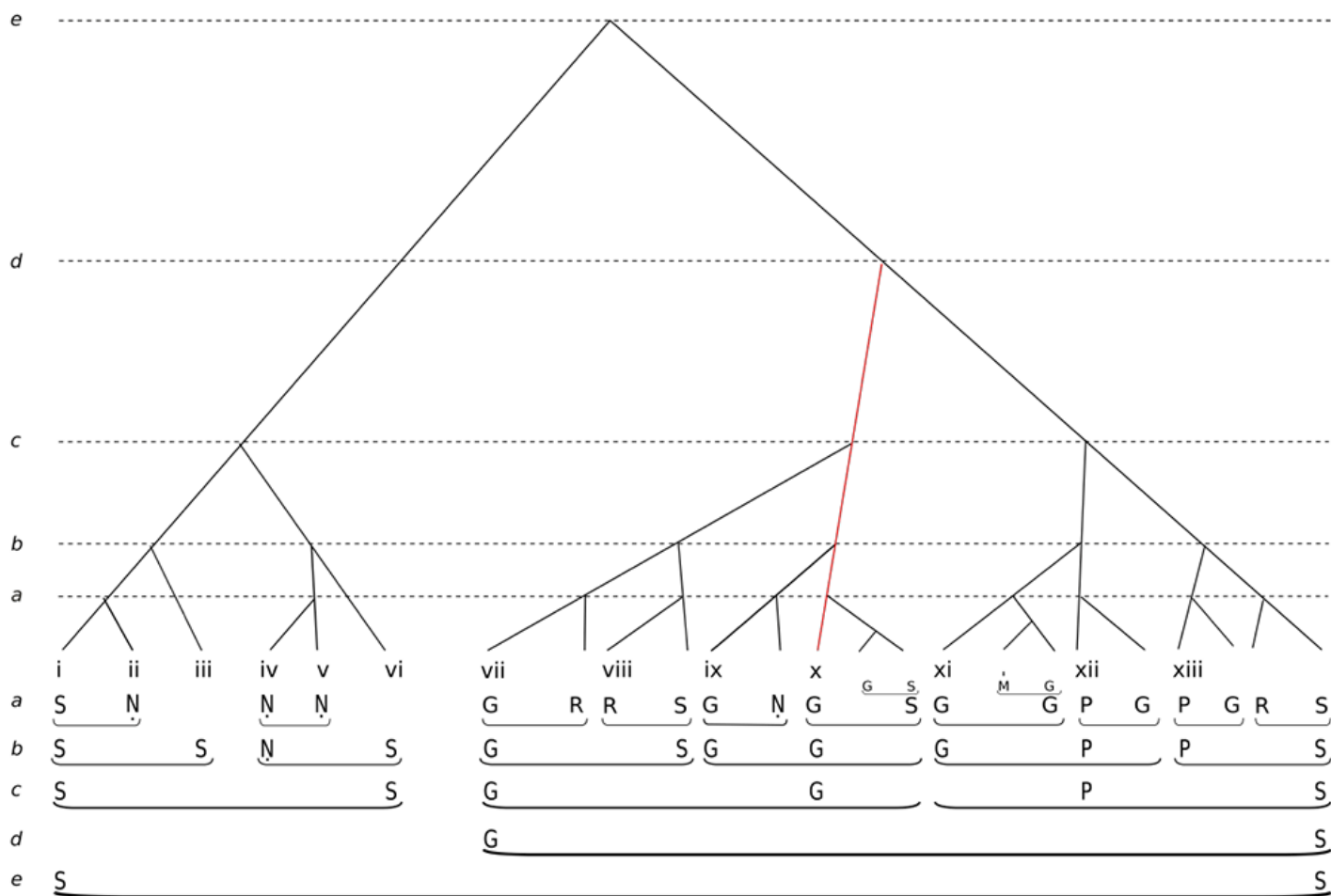
Example 10. Time-span reduction of entire *ālāp*, prioritizing cadenced groups



Example 11. Alternative analysis of *ālāp*, prioritizing final Sa of phrase x



Example 12. Further alternative analysis of *ālāp*, prioritizing teleology



Example 13. Ascending “fundamental line” for *Rāg Yaman*

S N R G $\overset{\vee}{M}$ P D N $\overset{\vee}{S}$

The image shows a musical staff in treble clef with nine notes: S, N, R, G, M, P, D, N, S. A thick horizontal line is drawn above the staff. Below the staff, a horizontal line connects two vertical stems, each topped with a note and a vertical line of three horizontal bars, representing the starting and ending notes of the scale.