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M U S I C   T H E O R Y   O N L I N E

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[1] Although I take issue with many points in Richard Hermann's (1995) response to my essay on "similarity" relations, this reply is restricted to Hermann's paragraphs 3-10, which I feel misrepresent my position.

[2] Hermann's paragraphs 3 and 4 take me to task for being overly harsh on intransitivity in my footnote 3 reference to "blind subset polling." That reference in fact alludes to information loss, and has nothing to do with transitivity. For example, REL(5-14,6-14) = REL(5-14,6-19) = REL(5-14,6-49) = 0.546, where Forte names stand for any particular instance of the named class. Here are the set classes to which abstract subsets common to each pivot and target belong:

* X *	* Y *	* Z *
REL(5-14,6-14)	REL(5-14,6-19)	REL(5-14,6-49)
2 : 1 2 3 4 5	2 : 1 2 3 4 5 6	2 : 1 2 3 4 5 6
3 : 1 3 4 7 9	3 : 3 4 5 8 9	3 : 3 5 7 8
4 : 4	4 : 16	4 : 15

[3] These common subsets determine the REL values.(1) Since those values are equal, so are the spreads between each pair of values; X is to Y as X is to Z, etc. But hidden behind that sameness is an erratic divergence in the set types considered. 53% of the types used in calculating either X or Y (the union) are also used in calculating both X and Y (the intersection). 47% of the union of X and Z are also in the intersection of X and Z, and 64% of the union of Y and Z are also in the intersection of Y and Z. "Intuitively," from this perspective, the value spreads are different. (How the difference might be interpreted is another matter; perhaps the comparison of X-Y and Y-Z spreads

should command more attention than that of X-Z and Y-Z spreads?) But this perspective is lost when the intermediate steps of the calculations are discarded. It is as if we move through a hidden dimension in Rahn's (1980) "(staggeringly complex) network" during any one REL calculation; upon obtaining the result, we burn the bridges behind us. This sort of information loss -- hardly unique in music theory, but exacerbated by the remarkably restricted scope of REL's object universe -- is what the "blind subset polling" reference called into question.

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1. I continue my assumption of REL taken with a full-suite TEST. Yes, as Hermann notes in his footnote 1, and as Lewin himself noted through mto-talk, REL's original formulation allows for a more selective TEST. The next question of course is what goes into selecting a "suitable" TEST. This problem is roughly of the same cut as others discussed in the essay, and so I chose not to pursue it. Notice my footnote 4 in the essay, however, and its mention of the "arbitrarily specified standard of subset content" in Block and Douthett (1994).
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[4] The "blind subset polling" reference was only a minor sidelight in my essay, relegated to a footnote. Its immediate context was the much larger problem of support through intuition, which I further addressed in a subsequent mto-talk post. I suspect that blind subset polling grates against the intuitions of others as well, and would be surprised if it did not play some part in the conception of Marcus Castren's RECREL. In any case, transitivity is not at issue here. Nor is it especially pronounced in my paragraph 10, which Hermann also fixates upon -- despite noting, in his paragraph 3, that the "t" word appears nowhere in the essay. I am nevertheless now deeply troubled by the prospect that "music will be lost," a pathetic although curious specter raised in Hermann's paragraph 4. Therefore, for the record, and for what it is worth: intransitivity *per se* does not strike me as overwhelmingly problematical.(2)

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2. See my dissertation (Demske 1993, 202-208, etc.) for one practical approach to intransitivity in an applied setting.
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[5] Turning briefly now to the other purported "dissatisfactions" of mine which Professor Hermann illuminates in his response: An open choice of pivots is certainly not unsatisfactory in and of itself; my concern throughout the essay was instead how to guide the choice. (Hermann pars. 5-6) As for "strained intuition," again, the context there was the elusiveness of intuition, and the inherent uncertainty of analytical models built on the shifting sands of what may or may not be significant in the abstract. (Hermann pars. 7-8) Finally, the matter of "context sensitive criteria," which Hermann reads into my paragraph 13, is properly taken up at paragraphs 16-18; there, the question is not one of whether to acknowledge such criteria, but of how to go about identifying and incorporating them in analysis. (Hermann pars. 9-10)

[6] More passionately committed theorists may disagree, but I believe that tackling this question is possible now only on an *ad hoc* basis, and particularly so in the music Hermann cites in his paragraph 19. Hermann reminds us that the problem of poor results lies not *necessarily* [my added spin] with some given theory in itself, but rather with how knowingly that theory is

applied. (Hermann's par. 13) I agree! But the knowledge component of that formula has yet to materialize, at least with respect to "similarity" relationships (although I do applaud Hermann's provisional sketch, and appreciate his bibliography). With no reliable constraints on the interaction between vague, "context-sensitive criteria" on one hand, and an unlimited supply of formalisms on the other, how can we rigorously evaluate any resulting analysis?

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