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## On factors influencing musical tension and its perception in Erkki-Sven Tüür's piece "Oxymoron"

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The aim of this article is to explore what musical factors influence the perception of musical tension in Erkki-Sven Tüür's "Oxymoron" (2003). The form (as a time dependent structure) of "Oxymoron" was analysed and juxtaposed with graphs derived from perception tests using the same piece as audio stimulus. "Oxymoron" does not consists of a clearly defined form and it was impossible to apply traditional analytical methods of formal analysis. Instead, a set of new terms, "impulse", "culmination", "contrast" and "contrast-culmination", are applied; these are to be understood as significant features or complexes of features appearing during the development of the music over time.

These terms are developed by the author of this article and are ranged on the basis of their relative structural meaning: events called "impulse" take place at the structural low (i.e. local) level, but events called "contrast-culmination" belong to the highest (i.e. global) level. "Impulse" (at a local level) and "contrast" (at a global level) are considered as unprepared events. "Culmination" (local level) and "contrast-culmination" (global level), on the other hand, are so defined because they are in some way prepared events.

The introduced formal events are visualized with bar diagrams in which the structurally lowest event(s) are shown with low black columns and higher events with higher black columns (see figure 1). In perception tests, seven participants with different musical backgrounds were asked to "draw" the tension design of the piece based on their personal perception but focusing on the structural features of the music: move the slider (either slowly or suddenly) up, if tension increased, and down, if tension decreased (see figure 2). The comparison of the bar diagram of formal analysis with the smoothed and normalized graphs and their average graph shows a relatively strong correlation between the formal analysis and the perception results confirming the hypothesis of this article: on a global level and at important points of the formal development of the piece the musical tension is perceived relatively similarly.