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**Meaning construction through semiotic means: The case of the visual pyramid.**

Chick, H. L. (ed.) et al., Proceedings of the 29th annual conference of the International Group for the Psychology of Mathematics Education, PME 29, Melbourne, Australia, July 10–15, 2005. Vol 1-4. Melbourne: University of Melbourne, Dep. of Science and Mathematics Education. Part III, 313-320 (2005).

Summary: This paper presents some elements of our study on the construction of mathematical meanings in terms of development of semiotic systems (gestures, speech in oral and written form, drawings) in a Vygotskian framework with reference to cultural artefacts (Wartofsky). It concerns with a teaching experiment on perspective drawing at primary school (4th-5th grade classes). We analyse the appropriation of an element of the mathematical model of perspective drawing (visual pyramid) through the development of gestures, speech and drawings, starting from a concrete experience with a Dürer's glass to the interpretation of a new artefact as a concrete model of that mathematical object.

*Classification:* C32 C33 G22 G23 G82 G83 D22 D23 A62 A63

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