From: **Martin Schoenert** martin.schoenert@math.rwth-aachen.de
Subject: constructors again
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To: gap-dev@math.rwth-aachen.de

Thomas, Frank, and I had a discussion about changing constructor again, so that we can solve the problems where one wants to specify a representation (e.g., in the case of associative words).

The idea is to have constructors again take a family or kind as first argument, which describes the kind of the wanted result.

Remember that we had two main problems with the old 'NewObject' approach. One problem was that the method selection in 'NewObject' treated the result kind covariant. The other problem was that the interpretation of the other arguments by 'NewObject' was different depending on the categories of the result kind.

So to solve those problems we would make the following changes. First the method selection in a constructor would treat the result kind contravariant. Second the interpretation of the other arguments by a constructor would depend only on the result family (but not on the categories of the result kind). Third we would allow more than one constructor, basically one for every different interpretation of the other arguments (this is a consequence of the second change).

I shall write more about this idea over the weekend.

Martin.

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