THE DECENT CLASS IS NOT DECENT

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It is well known that something goes wrong with Russell's class of all classes which are not members of themselves. If this class is a member of itself then it is not a member of itself, and if this class is not a member of itself then it is a member of itself. Contradiction!

Nevertheless, it is generally believed that nothing goes wrong with the decent class of all classes which are members of themselves. Namely, if this class is a member of itself then it is a member of itself, and if this class is not a member of itself then it is not a member of itself; and nothing is wrong with that. But we could ask wheather Rusell's class of all classes which are not members of themselves belongs to the decent class of all class which are members of themselves. If Russell's class belongs to the decent class, then Russell's class belongs to Russell's class and then Russell's class does not belong to Russell's class. Hence Russell's class does not belong to the decent class. On the other hand, if Russell's class does not belong to the decent class, then Russell's class does not belong to Russell's class and then Russell's class belongs to Russell's class. Hence Russell's class still belongs to the decent class. Contradiction!

We can conclude that something goes wrong with the decent class too. Perhaps we should blame the member, not the class. But we think that bad members simply do not belong to decent classes. The decent class is not decent.

The decent class is presented in a more general framework in my Cantor's theorem and paradoxical classes, Zeitschrift für math. Logik und Grundlagen der Math., Band 32, pp. 221-6, 1986.