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PhD schools around the world have three problems: (1) the decreasing interest in academic careers, (2) the supply in the publication market is many times smaller than the demand for it (3) the ubiquity of positivism. Based on four years of experience with a transdisciplinary doctoral school, two years of experience in curriculum development and another two years in implementation, disregarding the three problems that affect any form of doctoral education, we can say that specific problem of the transdisciplinary doctoral school concerns the teachers. There is no established way for teachers to learn how to assess the progress of transdisciplinary doctoral students. If the teachers use their experience from interdisciplinary doctoral education then that creates problems, if they don’t, they will suffer from the "The Emperor’s New Clothes" effect. It would be a mistake to develop an algorithm now. It is the smaller problem of algorithms that we don’t know enough yet; the bigger problem is that, nurturing the doctoral students should be non-algorithmic. We should not fall in the trap of the industrial culture, trying to make everything algorithmic. We argue that only those can fly out from the cages of their disciplines, who were ever inside one. Those who were never had their native discipline cannot become transdisciplinary. There is only one way of being in a disciplinary cage: one needs to know the fundamental concepts and the relationships between them. In contrast, there are many different ways of leaving the disciplinary cages: everyone creates metaphors from their own meta-knowledge. This leads to the source of the only specific problem of transdisciplinary doctoral schools: the doctoral students may and often will use different metaphors than their teachers. If they simply reiterated the metaphors of their teachers, that would be detrimental to the originality of the final report (e.g. dissertation). We cannot say that any and all metaphors by the doctoral students are suitable, but it would be equally wrong to say that each of them is wrong.