This paper focuses on the hypothesis of the extended cognition (HEC), and in particular, on two interrelated objections to it, namely the coupling-constitution fallacy and the cognitive bloat worry. Briefly, if there is no principled way in which we can decide whether a (cognitive) process depends on extra-neural (or extra-organismic) factors in a causal, or constitutive way, then HEC potentially leads to a ‘cognitive bloat’, whereby cognition seems like leaking all the way out in implausibly many directions. Accordingly, the reasoning further goes, cognitive theorists should better opt for the alternative hypothesis of embedded cognition (HEMC). Elaborating, however, on the details of Dynamical Systems Theory (DST), provides us with an objective criterion of constitution; when two elements are mutually interdependent on the basis of ongoing feedback loops, they constitute an overall coupled system, consisting of both of them. I argue that this ‘ongoing feedback loops’ criterion is necessary for cognitive extension, safeguarding HEC from both of the objections this paper addresses, while at the same time allowing us to clearly distinguish HEC from HEMC. I also explore how the addition of this extra criterion rules with respect to some of the alleged cases of extended cognition and, finally, whether it can reveal an essential feature of cognition.