DYER GROUPS ARE CAT(0)

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Abstract. When studying the solution to the word problem in Coxeter groups and in graph products of cyclic groups, one might notice that they are the same. Tits and Green both show that a word is reduced if and only if it cannot be reduced by a series of elementary M-transformations. In the 1980's Matthew Dyer described a class of groups, which we call *Dyer groups*, which are characterized by such a solution to the word problem. This class includes, but is not limited to, Coxeter groups, right angled Artin groups, and graph products of finite cyclic groups. As in those examples, Dyer groups can also be given through a standard presentation. We will then explain how to generalize the construction of the Davis-Moussong complex to this class.