In a 1963 paper I.D. MacDonald gave an example of a group in which the cyclic commutator subgroup is not generated by a commutator and he gives sufficient conditions on the group $G$ such that its cyclic commutator subgroup is generated by a commutator.

The question arises, what is the situation for other words in case the associated word subgroup is cyclic, in particular the word $x^n$, $n$ a positive integer. For $n$ a positive integer, we establish sufficient conditions such that $G^n = \langle g^n | g \in G \rangle$ is generated by an $n$-th power in case $G^n$ is cyclic and give examples of groups $G$, where $G^n$ is cyclic but not generated by the $n$-th power of an element. (Received September 16, 2013)