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Appeasement versus fighting: a new slavemaker employs alternative raiding strategies

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Social parasites have to break into the host colonies` fortress. Workerless inquilines creep in and avoid detection by chemical insignificance or mimicry. In contrast, slavemaking ants are often openly aggressive as their hosts recognize them by their chemical profile and defend their nests in open fights. At least this holds true for the two North American slavemakers, *Protomognathus americanus* and *Temnothorax duloticus*. However, a related newly described slavemaker species, *T. pilagens*, is using a very different and variable strategy. We can demonstrate that during most raids this slavemaker elicits no aggressive responses from its *Temnothorax* hosts. Not only is the slavemaker allowed to steal the brood unmolested, it was able to carry adult host workers back to its nest and integrated them into the slave workforce. In a few cases, however, in which the host apparently spotted the slavemaker, the latter completely changed its behaviour and killed most adult hosts by stinging. Standardized experiments with colonies of the two hosts *T. ambiguus* and *T. longispinosus* revealed that *T. pilagens* workers elicit only low aggression, much less than workers of its two slavemaker relatives. Indeed, host responses were as aggressive as those towards conspecifics and in one host species even below this level. A preliminary analysis of cuticular chemistry reveals that *T. pilagens* neither employs chemical mimicry nor insignificance. Possibly appeasement substances allow circumventing host aggression so successfully. Our behavioural observations indicate that the benefit of the dual strategy (ingratiation vs. fighting) is that if the slavemaker manages to circumvent detection it can not only increase its workforce by stealing host pupae, but also by re-programming adult host workers to serve as slaves. Future studies will compare adaptations and evolutionary trajectories in these three closely related slavemaker species, which, as phylogenetic analyses demonstrate, evolved slavemaking behaviour independently.