



Paul's Behavior Problem: Review of Rom 7:17, James 1:13-15; Allegory: Ichneumon Wasps, Caterpillars, & Ants Illustrate Spiritual War in the Soul

27. First of all, we need to introduce the characters in our illustration that will correspond to those in the *ménage à trios* described in James 1:13-15:
1. **An ichneumon** \ik-nü' men\ **wasp** plays the part of the first husband, the sinful nature.
 2. **Ichneumon eggs** represent the sins that are conceived and later delivered.
 3. **A caterpillar larva** portrays the kardia of the soul where the birth of these sins takes place.
 4. **Semiochemicals** will function as the *agents provocateurs*, the lust patterns of the sinful nature.
 5. **Ants** will perform the task of problem-solving devices that because of negative volition are not properly deployed under pressure which foments civil war within the soul.
 6. **The ant bed** will serve to portray the human soul.

28. First, a definition of “ichneumon” is required. The word is derived from the Greek noun:

ἰχνηός, *ichnos* - “track, trace, route, footstep.” In the New Testament it is used metaphorically, for example, by Peter in 1 Peter 2:21 to implore believers to “follow in the steps” of Jesus.

From this comes the word:

ἰχνεύμων, *ichneumōn* - “tracker”

Liddell, Henry George and Robert Scott. *A Greek-English Lexicon*. Revised by Henry Stuart Jones. (New York: Oxford University Press, 1968), 846:

This was first applied to an “Egyptian animal of the weasel-kind, which hunts out crocodile's eggs” and then secondly to a “small kind of wasp, that hunts spiders.”

29. In entomology, the ichneumon species we are about to meet is from the superfamily *ichneumonidae* of hymenopterous \h□' me-nāp' te-res\ insects—metamorphic, four-winged bees, wasps, and ants whose larvae are usually internal parasites of other insect larvae and especially caterpillars and often that of spiders.
30. There are two methods by which a host is utilized by the ichneumon wasp to hatch its larva: (1) ectoparasitic when the larva is attached to the surface of the host, and (2) endoparasitic when it is injected into the interior of the host.
31. The female ichneumon wasp has an extremely long ovipositor, an organ that extends from the rear and used to deposit eggs or larvae.
32. From two fascinating articles, the manner by which the ichneumon wasp infiltrates an ant colony in order to inject its larvae into a caterpillar will set up our allegory. First, an article by:

Whitfield, John. “Chemical Weapons Trigger Civil War.” *Nature*, 30 May 2002:

A wasp cruises above an alpine meadow. Underground its intended victim, a caterpillar, is hidden in the heart of an ants' nest.

From its aerial vantage, the ichneumon wasp can tell which species of ants live below. It can also tell if their nests contain caterpillars of the large blue butterfly. Impressive, given that the ants themselves don't recognize the caterpillar as an intruder.

But this pales compared with the wasp's next trick. It enters the nest and the ants “go berserk”, says entomologist Jeremy Thomas. They attack not the wasp, but each other. Amid the confusion, the wasp lays its eggs in the nest's caterpillars.



The wasp larvae hatch, eat the caterpillars alive and pupate. When the adult wasps emerge, they use similar *agent provocateur* tactics to escape the nest.

Thomas and his colleagues have analyzed the fiendish chemical cocktail the wasp uses to create its diversion. The six chemicals, four of which are new to science, are similar to those with which ants alert their nest-mates to trouble.

One chemical attracts the ants to the wasp. When they touch it, they pick up the other chemicals that simultaneously repel them and send them into an aggressive frenzy. Avoiding the wasp, they lash out at the nearest thing—a fellow ant.

The agitated ants release their own alarm chemicals, triggering more consternation and violence. In laboratory nests, the chaos lasts hours or even days. "A chain reaction of alarm crosses the colony," says Thomas, who works at the Centre of Ecology and Hydrology in Dorchester, UK.

The caterpillar that inadvertently causes all this fuss is itself a parasite. It tricks red ants into adopting and protecting it - probably through chemical mimicry - while it feeds on their brood.

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33. Whitfield quotes Jeremy Thomas, who, among a group of other scientists, has examined this phenomenon and authored the following article describing the ichneumon wasp's invasion of an ant colony using WMDs:

Thomas, Jeremy A., J. J. Knapp, T. Akino, et al. "Parasitoid Secretions Provoke Ant Warfare." *Nature*, 30 May 2002, 505:

Insect parasites are extreme specialists that typically use mimicry or stealth to enter ant colonies. The parasitic wasp (ichneumon) contrives to reach its host that lives inside the brood chambers of ant nests, by releasing **semiochemicals** to induce in-fighting between worker ants, locking the colony in combat and leaving it underprotected.

Ichneumon females deposit their eggs in caterpillar larvae, and their progeny emerge 11 months later as adults from their host's paupae. Both stages of caterpillar inhabit colonies of the ant, where the larvae mimic ant larvae in their behavior and surface chemistry. The ichneumon wasp seeks its host by first detecting ant colonies that contain caterpillar, and then inducing the fighting that enables it to penetrate the nests.

The ichneumon wasp uses agonistic chemicals to provoke the ants. [agonistic: aggressive or defensive social interaction between individuals usually of the same species (*Webster's Eleventh*, 25)].

(Among these agonistic chemicals) spectrometry [an instrumental measurement of emissions] revealed three alcohols (-ol): (1) .3mg Z-9-C₂₀-ol; (2) 5mg Z-9-C₂₂-ol; and (3) 14mg Z-9-C₂₄-ol; and three aldehydes (-al): (4) .3mg Z-9-C₂₀-al; (5) 7mg Z-9-C₂₂-al, and (6) 20mg Z-9-C₂₄-al.

Z-9-C₂₀-ol (1) attracts worker ants to the ichneumon wasp and encourages them to investigate it, but, having touched it, the ants become aggressive and run away, so that they attack sister ants instead. Z-9-C₂₄-al (6) promotes the initial investigation and, with Z-9-C₂₄-ol (3), amplifies ant aggression; Z-9-C₂₂-al (5), and Z-9-C₂₄-ol (3) strongly repel the ants. Mixed together, these chemicals draw ants to the ichneumon wasp, where, having become aroused to a state of high aggression, they are quickly repelled. This results in attacks being made on kin ants than on the ichneumon wasp, the stimulator of the aggression.

The ants themselves amplify and propagate a sense of panic after contact with the wasp, creating a chain reaction of in-fighting across their society.