A common assumption in morphological theory is that affixes are morphological atoms, and that as such, they invariably join directly with stems. Although this assumption is rarely questioned by theorists (but see Bochner 1992, Luís & Spencer 2005), it is sometimes rejected in descriptive accounts of a language’s morphology: that is, some descriptions involve affixes that are themselves morphologically complex, analyzable as combinations of simpler affixes. The notion that an affix may be morphologically complex might be labeled the micromorphology hypothesis; in more general, rule-based terms, this is the hypothesis that a morphological rule may itself be the composition of two simpler rules.

An important question is whether the micromorphology hypothesis is simply a descriptive convenience or whether there are instead theoretical grounds for adopting it. Drawing on evidence from a variety of languages (including Old and Modern English, Huave, Latin, Limbu, Noon, Pengo, Sanskrit, Swahili, and Wolof), I examine several expectations engendered by the micromorphology hypothesis each of which seems to be empirically confirmed. These include the following expectations:

- that by virtue of grammaticalization, the domain and productivity of a composed rule may differ from those of its component rules;
- that a composed rule may realize content not all of which stems directly from the content realized by its component rules;
- that the exponent introduced by a rule may appear in two different positions depending on whether or not it is composed with another rule;
- that the exponent introduced by a rule may appear in a variety of positions if that rule composes with a variety of rules;
- that two rules’ order of application may depend on whether or not one of them is composed with a third rule;
- that patterns of rule composition do not necessarily entail transitive sequences of rule application;
- that rule composition may cause a complex affix to remain internally stable even if it varies in its external combinations;
- that the affix introduced by a simple rule may stand in paradigmatic opposition to the combination of affixes introduced by a composed rule;
- that some morphotactic restrictions are more simply stated in terms of composed rules than in terms of simple rules; and
- that the composition of two rules may be an intermediate stage in the historical reanalysis of those rules as a single rule.

I conclude that the empirical confirmation of these expectations favors further scrutiny of (and possibly the adoption of) the micromorphology hypothesis.