Heavy quarks within electroweak multiplet JAIME BESPROS-
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de Mexico — Standard-model fields and associated electroweak Lagrangian compo-
nents are equivalently expressed within a shared basis that maintains the particles'
representations. The derived single mass-generating Higgs-field operator, delineated
by the vacuum expectation value, simultaneously constrains the vector-scalar cou-
plings, and the parity-conserving fermion Hamiltonian, and thus, the heavy-quark
masses, beside the vectors': it fixes the top-quark mass, for maximal hierarchy, or
given the bottom-quark mass. An interpretation follows that electroweak bosons
and heavy quarks belong in a multiplet.

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