To pose it in a question form, hmmm....

I guess one could say

"It seems that, using a probabilistic-logic-based learning system, one obtains a system that LEARNS the deep syntactic structure of a sentence, as an intermediate result DURING THE PROCESS OF learning surface syntactic structure based on comparison of sentences with
their non-linguistic referents.   This is because deep syntactic
structures often share more symmetries and patterns with the logical structure of sentences' non-linguistic referents.....

So a question would be: How could one tell, from the mere presence of deep syntactic structures as patterns in language, whether (or the extent to which) such structures are innate in the brain versus created in the course of learning (created due to their natural structural role as intermediaries between deep semantic structure and surface syntactic structure)?"

Well that's kind of complicated, but these are not trivial matters I guess..

The case in point is that if one wants a system to learn the surface structure

"Who did Ben tickle?"

based on a nonlinguistic referent that has logical structure

tickle(Ben, ?)

then the probabilistic logic system will, in the course of learning, automatically construct

Ben did tickle who?

as part of its surface-syntax-learning process..

-- Ben

Regarding,

> i think he might ask , what happens with ben is tickling sue who is
> being ticked by bob while he is being tickled by both

-- of course that's a more complex case that requires more inference steps to handle, but since my approach is logic-based, it doesn't have any problem with recursive constructs.... Recursive constructs are a problem for typical statistical methods, which don't involve general abstract knowledge representation (just markov chains; or hierarchical patterns with a fixed depth as in a typical deep neural net).... But probabilistic logic incorporates the "frequency counting" aspect of statistical methods, AND the general abstract knowledge representation of logical methods (so it can represent languages all the way up the good old "Chomsky formal language hierarchy"...)

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