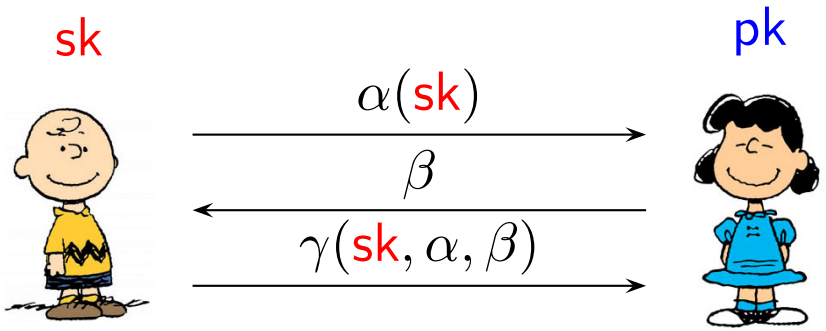
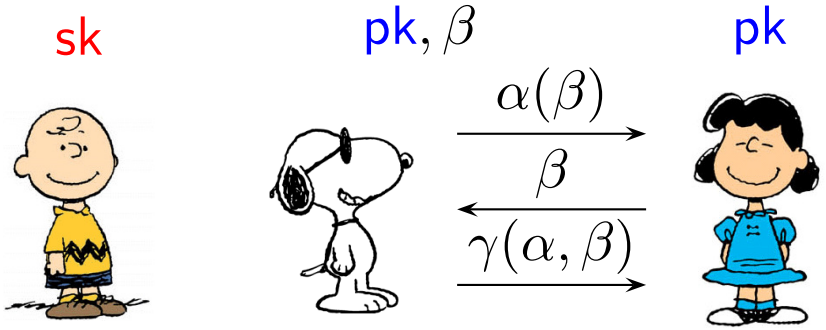


Even if Lucy is *honest*

▷ she might learn something about the secret sk.

since

▷ messages α and γ depend on the secret sk.



Since Lucy is *honest* the value of β is known by her before the protocol and Snoopy can use pk and β to simulate the other messages.