Asymmetric vs Symmetric

	Symmetric	Asymmetric
pro	Fast	No key agreement
cons	Key agreement	Very slow

The best of both worlds

- → Use RSA to encrypt a shared key
- → Use AES to encrypt message

$$E_{Kp}(m) = RSA_{Kp}(k), AES_k(m)$$

Naive approach

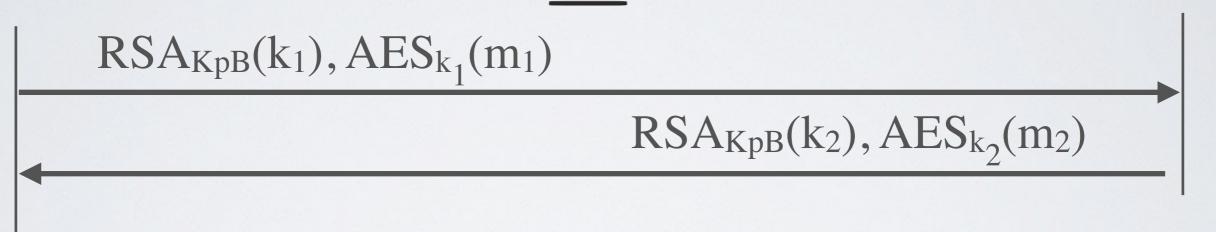
But not perfect yet

KsA, KpA





Ks_B, Kp_B
Kp_A



- ✓ Does ensure the confidentiality of the communication
- Does not authenticate Alice or Bob