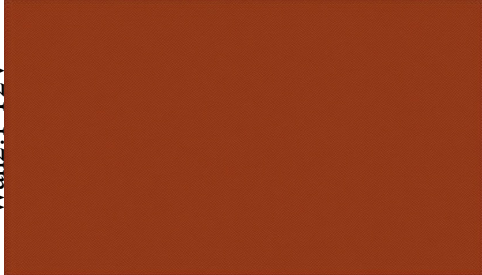with high freq Identity   with low freq Identity   w/o Identity Channels