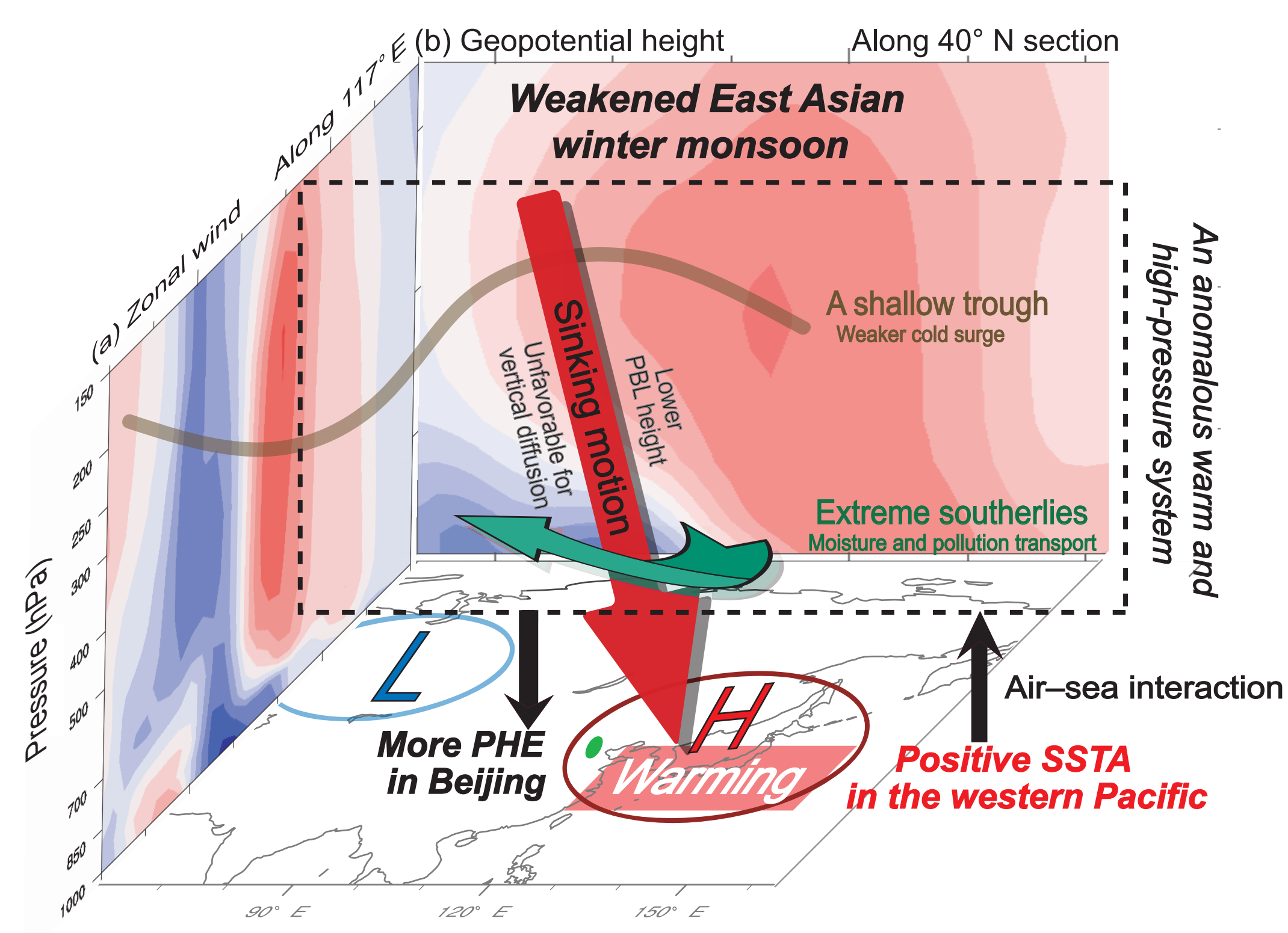
(a) Zonal wind
Along 117° E
(b) Geopotential height
Along 40° N section
Weakened East Asian winter monsoon
Sinking motion
Unfavorable for vertical diffusion
Lower PBL height
A shallow trough
Weaker cold surge
Extreme southerlies
Moisture and pollution transport
An anomalous warm and high-pressure system
Pressure (hPa)
150
200
250
300
400
500
700
850
1000
90° E
120° E
150° E
L
More PHE in Beijing
H
Warming
Air–sea interaction
Positive SSTA in the western Pacific