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“(De)coupling along plate boundaries: key variable controlling the mode of deformation and the geometry of collisional mountain belts”
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Figure DR1. Cartoon illustrating the consequences of decoupling (a) and coupling (b) between the foreland and an orogenic wedge. The big black arrows indicate the direction of shortening while the small black arrows indicate regions of uplift and subsidence, respectively. (a) Decoupling leads to strong uplift and deformation of the orogenic wedge and subsidence takes place in the foreland basin but leaves the indenter devoid of deformation. (b) Increasing coupling is reflected by the switch of deformation from the foreland plate/orogenic wedge domain to the indenter (backthrust) and orogen-scale uplift including the foreland basin in response to folding. Note that wavelength and amplitude of folding may be different between the various parts of the collisional system (foreland/orogenic wedge/indenter; see Fig. 2).
Fig. DR1 - Willingshofer & Sokoutis