

Stack Allocation	<p>n.a.</p>	<p><i>global</i> < <i>local</i></p> <p>Locality future</p> <p>SAFETY: <i>local</i> will not outlive its region NOT ALLOWED: return, escape, global store or capture <i>local</i> parameter isn't requirement, it's behavior guarantee NO CAPTURE/NEST: <i>local</i> in <i>global</i> Applies to non immediate values</p>
	Applies to mutable or mutable nesting data	Applies to functions or function nesting data
Ownership	<p>Uniqueness past</p> <p>unique < <i>aliased</i></p> <p>LINEAGE: unique has not been aliased ALLOWED: unique may be overwritten</p>	<p><i>many</i> < once</p> <p>Affinity future</p> <p>SAFETY: once will not alias unique value NOT ALLOWED: call once twice or more NO CAPTURE: once, unique in <i>many</i></p>
Shared Memory	<p>Contention past</p> <p><i>uncontended</i> < shared < contended</p> <p>LINEAGE: at most one thread retains <i>uncontended</i> access ALLOWED / NOT ALLOWED:</p> <ul style="list-style-type: none">• <i>uncontended</i>: thread may read or write• share: thread may only read• contended, thread may neither read nor write	<p>portable < <i>nonportable</i></p> <p>Portability future</p> <p>SAFETY: <i>nonportable</i> will not give access to non contended NOT ALLOWED: call <i>nonportable</i> in another thread NO CAPTURE: <i>nonportable</i>, <i>uncontended</i>, shared in portable</p>
Effects	<p>n.a.</p>	<p><i>unyielding</i> < yielding</p> <p>Yielding future</p> <p>SAFETY: yielding function will not perform effect handled in parent stack NOT ALLOWED: yielding ...</p>
Mutable Data	<p>Visibility past</p> <p><i>read_write</i> < read < immutable</p> <p>LINEAGE: Non immutable value ... ALLOWED:</p> <ul style="list-style-type: none">• <i>read_write</i>: may be read or written• read: may only be read	<p>stateless < observing < <i>stateful</i></p> <p>Statefulness future</p> <p>SAFETY:</p> <ul style="list-style-type: none">• observing: will not write on <i>read_write</i> data• <i>stateful</i>: will neither read nor write on non immutable data <p>NOT ALLOWED:</p> <ul style="list-style-type: none">• observing: write• <i>stateful</i>: <p>LEG. NO CAPT.: observing, <i>stateful</i>, <i>read_write</i>, read</p>