## LoJban attitudinals, EVIDENTIALS AND DISCURSIVES

## Emotional strength modifiers

| cmavo | effect |
| :--- | :--- |
| cai | Very strong |
| sai | Strong |
| $\ldots$ | Normal |
| ru'e | Weak |
| cu'i | Neutral scalar |
| nairu'e | Weak negative |
| nai | Normal negative |
| naisai | Strong negative |
| naicai | Very strong negative |

Simple propositional emotions

| cmavo | $\cdots$ | -cu'i | -nai |
| :--- | :--- | :--- | :--- |
| .a'a | attentive | inattentive | avoiding |
| .a'e | alertness | exhaustion |  |
| .ai | intent | indecision | refusal |
| .a'i | effort | lack of effort | repose |
| .a'o | hope | despair |  |
| .au | desire | indifference | reluctance |
| .a'u | interest | no interest | repulsion |

COMPLEX PROPOSITIONAL EMOTIONS

| cmavo | $\cdots$ | -cu'i | -nai |
| :--- | :--- | :--- | :--- |
| .e'a | permission |  | prohibition |
| .e'e | competence |  | incompetence |
| .ei | obligation |  | freedom |
| .e'i | constraint | independence | resistance to constraint |
| .e'o | request |  | negative request |
| .e'u | suggestion | no suggestion | warning |
| .ia | belief | skepticism | disbelief |
| .i'a | acceptance |  | blame |
| .ie | agreement | neutrality | disagreement |
| .i'e | approval | non-approval | disapproval |

Miscellaneous pure emotions

| cmavo | $\cdots$ | -cu'i | -nai |
| :--- | :--- | :--- | :--- |
| .ii | fear | nervousness | security |
| .i'i | togetherness |  | privacy |
| .io | respect | lack of respect | disrespect |
| .i'o | appreciation | lack of appreciation | envy |
| .iu | love | lack of love | hatred/fear |
| .i'u | familiarity |  | mystery |

Complex pure emotions

| cmavo | $\ldots$ | -cu'i | -nai |
| :--- | :--- | :--- | :--- |
| .o'a | pride | modesty | shame |
| .o'e | closeness | detachment | distance |
| .oi | complaint/pain | no complaints | pleasure |
| .o'i | caution | boldness | rashness |
| .o'o | patience | mere tolerance | anger |
| .o'u | relaxation | composure | stress |


| SIMPLE PURE EMOTIONS |  |  |  |
| :--- | :--- | :--- | :--- |
| cmavo | $\ldots$ | -cu'i | -nai |
| .ua | discovery |  | confusion |
| .u'a | gain |  | loss |
| .ue | surprise | no surprise | expectation |
| .u'e | wonder |  | commonplace |
| .ui | happiness |  | unhappiness |
| .u'i | amusement |  | weariness |
| .uo | completion |  | incompleteness |
| .u'o | courage | timidity | cowardice |
| .uu | pity |  | cruelty |
| .u'u | repentance | lack of regret | innocence |

Emotional categories

| cmavo | $\cdots$ | -cu'i | -nai |
| :--- | :--- | :--- | :--- |
| ro'a | social | asocial | antisocial |
| ro'e | mental | absentminded | mindless |
| ro'i | emotional | emotionless | denying emotion |
| ro'o | physical | intangible | denying physical |
| ro'u | sexual | asexual | sexual abstinence |
| re'e | spiritual | secular | sacrilegious |

## Emotional modifiers

| cmavo | gismu | $\ldots$ | -cu'i | -nai |
| :--- | :--- | :--- | :--- | :--- |
| ga'i | galtu | hauteur/rank | equal rank | meekness |
| le'o |  | aggressive | passive | defensive |
| vu'e | vrude | virtue |  | sin |
| se'i | sevzi | self-orientation |  | other-orientation |
| ri'e | zifre | release | control | restraint |
| fu'i | frili | easily | without help | with difficulty |
| be'u |  | lack of | enough of | too much of |
| se'a | sevzi | self-sufficiency |  | dependency |


| EMOTIONAL SPECIALS |  |  |
| :--- | :--- | :--- |
| cmavo $\quad .$. | -cu'i | -nai |

pei attitude question
dai empathic transfer
bu'o start emotion continue emotion end emotion
Evidentials

| cmavo | gismu | $\ldots$ | -cu'i | -nai |
| :--- | :--- | :--- | :--- | :--- |
| ja'o | jalge | I conclude |  |  |
| ca'e |  | I define |  |  |
| ba'a | balvi | I expect | I experience | I remember |
| su'a | sucta | I generalize |  | I particularize |
| ti'e | tirna | I hear (hearsay) |  |  |
| ka'u | kulnu | I know by culture |  |  |
| se'o | senva | I know by internal |  |  |
| za'a | zgana | I observe |  |  |
| pe'i | pensi | I opine |  |  |
| ru'a | sruma | I postulate |  |  |
| ju'a | jufra | I state (default) |  |  |

Consecutive Discourse
cmavo gismu


## Commentary on discourse

cmavo gismu

| li'a | klina | clearly |  | obscurely |
| :---: | :---: | :---: | :---: | :---: |
| ba'u | banli | exaggeration | accuracy | understatement |
| zo'o |  | humorously | dully | seriously |
| sa'e | satci | precisely speaking |  | loosely speaking |
| to'u | tordu | in brief |  | in detail |
| do'a | dunda | generously |  | parsimoniously |
| sa'u | sampu | simply |  | elaborating |
| pa'e | pajni | justice |  | prejudice |
| je'u | jetnu | truly |  | falsely |

## Knowledge

| cmavo | gismu | $\cdots$ | -cu'i | -nai |
| :--- | :--- | :--- | :--- | :--- |
| ju'o | djnuo | certainly | uncertain | certainly not |
| la'a | lakne | probably |  | improbably |
| DISCOURSE MANAGEMENT |  |  |  |  |

ISCOURSE MANAGEMENT

| cmavo | gismu | $\cdots$ | -cu'i | -nai |
| :--- | :--- | :--- | :--- | :--- |
| ta'o | tanjo | by the way |  | returning to point |
| ra'u | ralju | chiefly | equally | incidentally |
| mu'a | mupli | for example | omitting | end examples |
| zu'u |  | on the one hand |  | on the other hand |
| ke'u | krefu | repeating <br> da'i |  | supposing |


| cmavo | $\cdots$ | -nai |
| :--- | :--- | :--- |
| ki'a | metalinguistic confusion |  |
| na'i | metalinguistic negator |  |
| jo'a | metalinguistic affirmer |  |
| li'o | omitted text (quoted material) |  |
| sa'a | material inserted by editor |  |
| xu | boolean question |  |
| pau | question premarker | rhetorical question |
| kau | indirect question | literal language |
| pe'a | figurative language | old information |
| bi'u | new information |  |
| ba'e | forethought emphasis |  |
| za'e | forethought nonce-word |  |
| ge'e | elliptic/non-specific attitudinal |  |

LOJBAN MODALS (BAI)

| cmavo | . . | se- | te- | ve- | xe- | gismu | definition |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| du'o | according to | knowing facts | knowing about | under epistemology |  | djuno | $\mathrm{x}_{1}$ knows fact $\mathrm{x}_{2}$ (du'u) about subject $\mathrm{x}_{3}$ by epistemology $\mathrm{x}_{4}$ |
| si'u | aided by | assisting | assisting in |  |  | sidju | $\mathrm{x}_{1}$ helps/assists/aids object/person $\mathrm{x}_{2}$ do/achieve/maintain event/activity $\mathrm{x}_{3}$ |
| zau | approved by | approving |  |  |  | zanru | $\mathrm{x}_{1}$ approves of/gives favor to plan/action $\mathrm{x}_{2}$ (object/event) |
| ki' ${ }^{\text {i }}$ | as a relation of | related to | with relation |  |  | ckini | $\mathrm{x}_{1}$ is related to/associated with/akin to $\mathrm{x}_{2}$ by relationship $\mathrm{x}_{3}$ |
| du'i | as much as | equal to | equal in property |  |  | dunli | $\mathrm{x}_{1}$ is equal/congruent to/as much as $\mathrm{x}_{2}$ in property/dimension/quantity $\mathrm{x}_{3}$ |
| cu'u | as said by | expressing | as told to | expressed in medium |  | cusku | $\mathrm{x}_{1}$ expresses/says $\mathrm{x}_{2}$ (sedu'u/text/lu'e concept) for audience $\mathrm{x}_{3}$ via expressive medium $\mathrm{x}_{4}$ |
| tu'i | associated with site | as a location of |  |  |  | stuzi | $\mathrm{x}_{1}$ is an inherent/inalienable site/place/position/situation/spot/location of $\mathrm{x}_{2}$ (object/event) |
| ti'u | associated with time | at the same time as | time on day | time at location |  | tcika | $\mathrm{x}_{1}$ is the time/hour of state/event $\mathrm{x}_{2}$ on day $\mathrm{x}_{3}$ at location $\mathrm{x}_{4}$ |
| di'o | at the locus of | at specific locus | at locus within range |  |  | diklo | $\mathrm{x}_{1}$ is local/confined to locus $\mathrm{x}_{2}$ within range $\mathrm{x}_{3}$ |
| ji'u | based on | supporting |  |  |  | jicmu | $\mathrm{x}_{1}$ is a basis/foundation/underlying or fundamental principle of $\mathrm{x}_{2}$ |
| ri'a | because of cause | causal therefore | causal conditions |  |  | rinka | $\mathrm{x}_{1}$ (event/state) effects/physically causes effect $\mathrm{x}_{2}$ (event/state) under conditions $\mathrm{x}_{3}$ |
| ni' ${ }^{\text {i }}$ | because of logic | entails therefore | under logic system |  |  | nibli | $\mathrm{x}_{1}$ logically necessitates/entails/implies action/event/state $\mathrm{x}_{2}$ under rules/logic system $\mathrm{x}_{3}$ |
| mu'i | because of motive | motive therefore | motive of person |  |  | mukti | $\mathrm{x}_{1}$ (action/event/state) motivates/is a motive/incentive for action/event $\mathrm{x}_{2}$, per volition of $\mathrm{x}_{3}$ |
| ki'u | because of reason | reason therefore |  |  |  | krinu | $\mathrm{x}_{1}$ (event/state) is a reason/justification/explanation for/causing/permitting $\mathrm{x}_{2}$ (event/state) |
| va'u | benefiting from | with beneficiary | goodness standard |  |  | xamgu | $\mathrm{x}_{1}$ (object/event) is good/beneficial/nice for $\mathrm{x}_{2}$ by standard $\mathrm{x}_{3}$ |
| koi | bounded by | as boundary of | bordering |  |  | korbi | $\mathrm{x}_{1}$ is an edge/margin/border/curb/boundary of $\mathrm{x}_{2}$ next-to/bordering-on $\mathrm{x}_{3}$ |
| ca'i | by authority of | with authority over | basis for authority |  |  | catni | $\mathrm{x}_{1}$ has authority/is an official in/on/over matter/sphere/persons $\mathrm{x}_{2}$ derived on basis $\mathrm{x}_{3}$ |
| ta'i | by method | as a method for | method conditions |  |  | tadji | $\mathrm{x}_{1}$ is a method/technique/approach/means for doing $\mathrm{x}_{2}$ (event) under conditions $\mathrm{x}_{3}$ |
| pu'e | by process | processing from | processing into | through stages |  | pruce | $\mathrm{x}_{1}$ is a process with inputs $\mathrm{x}_{2}$, outputs/results $\mathrm{x}_{3}$, passing through steps/stages $\mathrm{x}_{4}$ |
| ja'i | by rule | by rule prescribing | by rule within |  |  | javni | $\mathrm{x}_{1}$ is a rule prescribing/mandating/requiring $\mathrm{x}_{2}$ (event/state) within system/community $\mathrm{x}_{3}$ |
| kai | characterizing | with property |  |  |  | ckaji | $\mathrm{x}_{1}$ has/is characterized by property/feature/trait/aspect/dimension $\mathrm{x}_{2}(\mathrm{ka})$ |
| bai | compelled by | compelling event |  |  |  | bapli | $\mathrm{x}_{1}$ (ka) forces/compels event $\mathrm{x}_{2}$ to occur |
| fi'e | created by | creating work | created for purpose | created from |  | finti | $\mathrm{x}_{1}$ invents/creates/composes/authors $\mathrm{x}_{2}$ for function/purpose $\mathrm{x}_{3}$ from existing elements/ideas $\mathrm{x}_{4}$ |
| de'i | dated | on the same date as | on date at location | on date by calendar |  | detri | $\mathrm{x}_{1}$ is the date of event/state $\mathrm{x}_{2}$, at location $\mathrm{x}_{3}$, by calendar $\mathrm{x}_{4}$ |
| ci'o | emotionally felt by | emoting | emoting about |  |  | cinmo | $\mathrm{x}_{1}$ feels emotion $\mathrm{x}_{2}(\mathrm{ka})$ about $\mathrm{x}_{3}$ |
| mau | exceeded by | more than | more in property | more by amount |  | zmadu | $\mathrm{x}_{1}$ exceeds/is more than $\mathrm{x}_{2}$ in property/quantity $\mathrm{x}_{3}(\mathrm{ka} / \mathrm{ni})$ by amount/excess $\mathrm{x}_{4}$ |
| mu'u | exemplified by | example of property | example out of set |  |  | mupli | $\mathrm{x}_{1}$ is an example/sample/specimen/instance/case/illustration of common property $\mathrm{x}_{2}$ of set $\mathrm{x}_{3}$ $\mathrm{x}_{1}$ undergoes/experiences $\mathrm{x}_{2}$ (event/experience) |
| ${ }_{\text {ri' }}{ }^{\text {r }}{ }^{\text {i }}$ | experienced by | experiencing |  |  |  | lifri | $\mathrm{x}_{1}$ undergoes/experiences $\mathrm{x}_{2}$ (event/experience) |
| ra'i | from source | as an origin of |  |  |  | krasi | $\mathrm{x}_{1}$ (site/event) is a source/start/beginning/origin of $\mathrm{x}_{2}$ (object/event/process) $\mathrm{x}_{1}$ comes/goes to destination $\mathrm{x}_{2}$ from origin $\mathrm{x}_{3}$ via route $\mathrm{x}_{4}$ using means/vehicle $\mathrm{x}_{5}$ |
| ka'a ${ }_{\text {pa'u }}$ | gone to by | with destination | with origin | via route | by transport | klama | $\mathrm{x}_{1}$ comes/goes to destination $\mathrm{x}_{2}$ from origin $\mathrm{x}_{3}$ via route $\mathrm{x}_{4}$ using means/vehicle $\mathrm{x}_{5}$ $x_{1}$ is a part/component/piece/portion/segment of $x_{2}$ |
| pa'a | having addition to | similar to | contrasting property | similar by standard |  | pagbu panra | $\mathrm{x}_{1}$ is a part/component/piece/portion/segment of $\mathrm{x}_{2}$ $\mathrm{x}_{1}$ parallels $\mathrm{x}_{2}$ differing only in property $\mathrm{x}_{3}(\mathrm{ka})$ by standard/geometry $\mathrm{x}_{4}$ |
| le'a | in category | as a category of | defined by quality |  |  | klesi | $\mathrm{x}_{1}$ (mass/si'o) is a class/category/subgroup/subset within $\mathrm{x}_{2}$ with defining property $\mathrm{x}_{3}(\mathrm{ka}$ ) |
| ku'u | in culture | in culture of |  |  |  | kulnu | $\mathrm{x}_{1}$ is culture of nation/ethos $\mathrm{x}_{2}$ (mass) |
| bau | in language | in language of | language expressing |  |  | bangu | $\mathrm{x}_{1}$ is a/the language/dialect used by $\mathrm{x}_{2}$ to express/communicate $\mathrm{x}_{3}$ (si'o/du' u , not quote) |
| tai | in manner | manner of |  |  |  | tasmi | $\mathrm{x}_{1}$ is the way or manner in which activity/event $\mathrm{x}_{2}$ is done/happens |
| ma'i | in reference frame | as a standard for | rules of standard |  |  | manri | $\mathrm{x}_{1}$ is a frame of reference/standard for observing/measuring/determining $\mathrm{x}_{2}$, with/by rules $\mathrm{x}_{3}$ |
| $\mathrm{ci}^{\prime} \mathrm{e}$ | in system | with system function | of system components | with synergy in |  | ciste | $\mathrm{x}_{1}$ (mass) system interrelated by structure $\mathrm{x}_{2}$ among components $\mathrm{x}_{3}$ (set) displaying $\mathrm{x}_{4}$ (ka) |
| $\begin{aligned} & \mathrm{fau}_{\mathrm{po}}{ }_{\mathrm{po}} \end{aligned}$ | in the event of in the sequence | sequenced by rules | ordering items |  |  | ${ }_{\text {fasnu }}^{\text {porsi }}$ | $\mathrm{x}_{1}$ (event) is an event that happens/occurs/takes place <br> $\mathrm{x}_{1}$ is sequenced/ordered/listed by comparison/rules $\mathrm{x}_{2}$ on unordered set $\mathrm{x}_{3}$ |
| cau | lacked by | without |  |  |  | claxu | $\mathrm{x}_{1}$ is without/lacking/free of/lacks $\mathrm{x}_{2}$ |
| ma'e | material object | made of material | in material from |  |  | marji | $\mathrm{x}_{1}$ is material/stuff/matter of type/composition including $\mathrm{x}_{2}$ in shape/form $\mathrm{x}_{3}$ |
| ci'u | on the scale | on scale measuring |  |  |  | ckilu | $\mathrm{x}_{1}$ (si'o) is a scale of units for measuring/observing/determining $\mathrm{x}_{2}$ (state) |
| ra'a | pertained to by | concerning |  |  |  | srana | $\mathrm{x}_{1}$ pertains to/is germane/relevant to/concerns/is related/associated with/is about $\mathrm{x}_{2}$ |
| pu'a | pleased by | in order to please | pleasing conditions |  |  | pluka | $\mathrm{x}_{1}$ (event/state) seems pleasant to/pleases $\mathrm{x}_{2}$ under conditions $\mathrm{x}_{3}$ |
| li'e | preceded by | preceding | ordered in sequence |  |  | lidne | $\mathrm{x}_{1}$ precedes/leads $\mathrm{x}_{2}$ in sequence $\mathrm{x}_{3}$ |
| la'u | quantifying | in quantity | measured on scale |  |  | klani | $\mathrm{x}_{1}$ is a quantity quantified/measured/enumerated by $\mathrm{x}_{2}$ (quantifier) on scale $\mathrm{x}_{3}$ (si'o) |
| ba'i | replaced by | instead of |  |  |  | basti | $\mathrm{x}_{1}$ replaces/substitutes for/instead of $\mathrm{x}_{2}$ in circumstance $\mathrm{x}_{3}$ |
| ka'i | represented by | on behalf of | representing in |  |  | krati | $\mathrm{x}_{1}$ represents/is an agent/proxy/stands-in for $\mathrm{x}_{2}$ in matter/function $\mathrm{x}_{3}$ |
| $\begin{aligned} & \text { sau } \\ & \text { fa'e } \end{aligned}$ | requiring reverse of | necessary for in reversal of | necessarily under |  |  | sarcu <br> fatne | $\mathrm{x}_{1}$ (abstract) is necessary/required for continuing state/process $\mathrm{x}_{2}$ under conditions $\mathrm{x}_{3}$ $\mathrm{x}_{1}$ is in reverse order from $\mathrm{x}_{2}$ |
| be'i | sent by | transmitting | sent to | transmit origin | transmit via | benji | $\mathrm{x}_{1}$ transfers/sends/transmits $\mathrm{x}_{2}$ to receiver $\mathrm{x}_{3}$ from transmitter/origin $\mathrm{x}_{4}$ via means/medium $\mathrm{x}_{5}$ |
| $\mathrm{ti}^{\prime}{ }^{\text {i }}$ | suggested by | suggesting | suggested to |  |  | stidi | $\mathrm{x}_{1}$ suggests/proposes/inspires idea/action $\mathrm{x}_{2}$ to audience $\mathrm{x}_{3}$ |
| ja'e | therefore result | results because |  |  |  | jalge | $\mathrm{x}_{1}$ (action/event/state) is a result/outcome/conclusion of antecedent $\mathrm{x}_{2}$ (event/state/process) |
| ga'a | to observer | observing | observed by means | observed under |  | zgana | $\mathrm{x}_{1}$ observes/watches/beholds $\mathrm{x}_{2}$ using senses/means $\mathrm{x}_{3}$ under conditions $\mathrm{x}_{4}$ |
| va'o | under conditions | as conditions for |  |  |  | vanbi | $\mathrm{x}_{1}$ is part of an environment/surroundings/context/ambience of $\mathrm{x}_{2}$ |
| $\begin{aligned} & \text { ji'o } \\ & \text { me'a } \end{aligned}$ | under direction of undercut by | controlling aspects less than | controlling event less in property | less by amount |  | $\begin{aligned} & \text { jitro } \\ & \text { mleca } \end{aligned}$ | $\mathrm{x}_{1}$ has control over/harnesses/manages/directs/conducts $\mathrm{x}_{2}$ in $\mathrm{x}_{3}$ (activity/event/performance) $\mathrm{x}_{1}$ is less than $\mathrm{x}_{2}$ in property/quantity $\mathrm{x}_{3}(\mathrm{ka} / \mathrm{ni})$ by amount $\mathrm{x}_{4}$ |
| ji'e | up to limit | as a limit of | limited in property |  |  | jimte | $\mathrm{x}_{1}$ is a limit/extreme/bound/border of $\mathrm{x}_{2}$ in property/domain $\mathrm{x}_{3}$ |
| pi'o | used by | using tool | usage for purpose |  |  | pilno | $\mathrm{x}_{1}$ uses/employs $\mathrm{x}_{2}$ tool, apparatus, machine, agent, acting entity, material for purpose $\mathrm{x}_{3}$ |
| gau | with active agent | as agent in doing |  |  |  | gasnu | $\mathrm{x}_{1}$ is an agentive cause of event $\mathrm{x}_{2}$ |
| zu'e | with actor | goalfully acting at | with goal |  |  | zukte | $\mathrm{x}_{1}$ is a volitional entity employing means/taking action $\mathrm{x}_{2}$ for purpose/goal $\mathrm{x}_{3} /$ to end $\mathrm{x}_{3}$ |
| me'e | with name | as a name for | as a name used by |  |  | cmene | $\mathrm{x}_{1}$ (quotation) is a/the name/title/tag of $\mathrm{x}_{2}$ to/used-by namer/name-user $\mathrm{x}_{3}$ (person) |
| rai | with superlative | superlative in | at extreme | superlative among |  | traji | $\mathrm{x}_{1}$ is superlative in property $\mathrm{x}_{2}(\mathrm{ka})$, the $\mathrm{x}_{3}$ extreme (ka) among set/range $\mathrm{x}_{4}$ |
| do'e | elliptical/unspecified |  |  |  |  |  |  |

