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SEMANTIC FORAGING AGENT-BASED MODEL ():
setup world
let selected-word = 0
while ticks < max-ticks do
    if ticks = 0 do
        let selected-word min(words-distance)
        let word-list-nearby words-in-neighborhood
        let last-scent = 0
    if selected-word != 0 do
        do move-to-selected-word
        if agent-position = word-position do
            do report-word
            do change-search-type
    else do
        let word-list-nearby words-in-neighborhood
        if search-type = "global search" do
            if word-list-nearby > 0 do
                let scent-decision scent (word-list-nearby[norm-
frequency])                                              ▷ semantic scent
                let current-scent scent-decision[value]
                if scent-decision[decision] = "report" do
                    let selected-word RouletteWheelSelection (word-list-
nearby[log-frequency])
                    let word-list-nearby list(words-in-neighborhood,
ignored-words)                                           ▷ activate ignored words
                else do
                    let ignored-words do ignore-words-in-
neighborhood
                    if current-scent > last-scent do
                        do move forward
                        let last-scent current-scent
                    else do
                        do random-walk
            else do
                do random-walk
        else do                                          ▷ local search
            if word-list-nearby > 0 do
                let scent-decision RouletteWheelSelection (scent (word-
list-nearby[similarity]))                                ▷ semantic scent
                if scent-decision[decision] = "report" do
                    let weights word-list-nearby[similarity] * word-list-
nearby[log-frequency]
                    let selected-word RouletteWheelSelection (weights)
                else do
                    let ignored-words do ignore-words-in-
neighborhood
                    let selected-word 0
            else do
                do change-search-type
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