

# 1 Model Description

## 1.1 English

These models are putative mechanistic descriptions of how *people*, as members of *organizations*, choose to make *political donations* in light of background and targeted *events*.

Like any model, they must be parametrized, but we will attempt to choose parameters such that they represent meaningful, independently measurable quantities.

First-order model:

1. a political contest is two years in duration
2. there is only one political contest per cycle
3. there are only two options for that contest
4. people belong to a single organization,
5. people have a single candidate preference
6. the target measurement is same-candidate donation, between-person lag time in days
7. people donate only in response to events
8. people have a fixed total donation to a particular candidate
9. events come in several flavors:

**background** events which are organization independent - *e.g.* revelations in news media, campaign cold-calling pushes. These have two flavors, favorable for candidate A and unfavorable for B, and *vice versa*.

**candidate** events which represent a candidate visiting a region, having one organization-independent event, then multiple organization-associated events in series

**organization** events which represent a particular organization having a event for a particular candidate

## 1.2 Pseudo-code

```
object Individual
  belongs to Organization
  has Organization affinity parameter
  prefers a Candidate
  has Candidate affinity parameter
  has propensity to give
  has given an amount this cycle
```

```

object Organization
  prefers a Candidate
  has a particular distribution for generating Organization Events

object Candidate
  has a particular distribution for generating Candidate Events

object Background
  has a particular distribution for generating Background Events

run loop:

for (t=1; t < two years; t = t+1)
  if (doBackgroundEvent(t))
    event = createABackgroundEvent
    for (person in people) if person.caresAbout(event)
      person.donate
    endif
  daysOfCandidateEvents = doCandidateEvent(t)
  if (daysOfCandidateEvents != 0)
    // create a list of events, one non-organization, the rest organization-based
    // which gets consumed as time goes on
    // not sure on logic for this yet
  else if (doOrganizationEvent(t))
    event = createOrganizationEvent
    for (person in event.organization) if person.caresAbout(event)
      person.donate
    endif
  endif
endfor

```