Appendix A

*Pseudocode for Core Agent-Based Model*

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| *Stage 1: Initial Interaction Based on Leadership Schemas* | |
| Step | Description |
| 1 | Interaction clock is set to 0; each agent is assigned all entity variables. |
| 2 | Two agents (*i* and *j)* are randomly selected for dyadic interaction. |
| 3 | Each agent compares its ILT (ILTi) to Individual Attributes (Ci). The closer that ILTi is to Ci, the more likely the agent claims leadership within that interaction. |
| 4 | If agent *j* claimed leadership, agent *i* evaluates agent *j* to determine if they will grant agent *j* ‘s claim. agent *i* then proceeds to step 6. If agent *j* did not claim, agent *i* does not grant. |
| 5 | Agent *i* compares her ILT to agent *j*’s leadership characteristics. The closer they are, the more likely agent *i* moves to step 7. Alternatively, agent *i* does not grant leadership. |
| 6 | Agent *i* uses her follower self-schema to determine if she will grant leadership. The higher the probability, the more likely she will grant leadership. |
| 7 | Steps 5 -7 repeats once for the Agent *j* evaluating agent *i.* |
| 8 | Agent *i and Agent j* each change their leader identity score (LI) from the previous iteration. They add .5 if they granted leadership, subtract .5 if they were not granted leadership, and nothing changes if they did not claim. |
| 9 | Agent *i and Agent j* each change their follower identity score (FI) from the previous iteration. They add .5 if they granted leadership, subtracts .5 of they did not grant leadership, and nothing changes if the other agent did not claim. |
| 10 | Agent *i and Agent j* each change their leadership perception (LP) score for each other from the previous iteration. If the agent granted leadership, they add 1 to their LP score for the other agent. |

Appendix B

*Parameter Sensitivity Testing Plan*

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| Model | Unique Element at Stage 1 |
| **Base Model** | ILT-Self Comparison |
| **Social Interactionist** | Leadership Structure Schemas |
| **Social Cognitive** | Leader/Follower Self-Schemas |
| *Mode of Assessment* | *Variance Accounted for in Outcomes* |

Appendix C

Simplifying Assumptions for Social Interactionist ABM

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| **Assumption Type** | **Simplifying Assumption** | **Conceptual Support** | **Citation(s)** |
| General | Dyadic interactions represent the core of leadership emergence | Double interacts are the core unit of interactions across multiple works | DeRue & Ashford, 2010; DeRue, 2011 |
| General | Individuals first determine self-decisions (i.e. should I claim) before evaluating others | Original works discuss self-decisions as foundational to the leadership process | Acton et al., 2019; DeRue, Ashford, & Cotton, 2009 |
| Unique to Perspective | Leader identity starts somewhere close to equal likelihood of claiming leadership, adjusted by how close the ILT-self characteristics comparison is | Individuals discussed as having past experiences as a leader and so this should affect their tendency to enact leadership | DeRue & Ashford, 2010; DeRue, Ashford, & Cotton, 2009 |
| Unique to Perspective | Follower identity starts at the point where a person is equally likely to grant leadership and is socially constructed over time | Focus at the follower level, prior to identity being developed, is on leadership structure schemas as well as ILT, not a follower self-schema | DeRue & Ashford, 2010; Marchiondo, Myers, & Kopelman, 2015 |
| Unique to Perspective | Those with a hierarchical LSS do not allow two people to serve as a leader within an interaction | Original examples used to represent LSS, describe it as clear standard for dyadic interactions early on | DeRue & Ashford, 2010 |
| Unique to Perspective | Individuals strengthen their leader/follower identity when a claim is reciprocated with a grant | The development of a contextualized identity is a truly dyadic process in that it requires socially reinforced claims | DeRue & Ashford, 2010; DeRue, Ashford, & Cotton, 2009 |
| Unique to Perspective | Individuals weaken their leader/follower identity when their non-claim/grant is reciprocated with a non-grant/claim | The opposite of the identity formation process is equally dyadic, in that a series of non-claims and grants results in a decline in identity | DeRue & Ashford, 2010; DeRue, Ashford, & Cotton, 2009 |
| Unique to Perspective | Individuals leadership perception of others is increased both from when the grant leadership to others, as well as when the other person claims. However, if both occur then this will have most impact on leadership perception | Past cases are presented where individuals claiming leadership repeatedly can develop leadership roles independent of initial reinforcement of claims | DeRue & Ashford, 2010; DeRue, Ashford, & Cotton, 2009 |

Appendix D

Simplifying Assumptions for Social Cognitive ABM

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| *Primary Simplifying Assumptions for Social Cognitive ABM* **Assumption Type** | **Simplifying Assumption** | **Conceptual Support** | **Citation(s)** |
| General | Dyadic interactions represent the core of leadership emergence | Double interacts are the clear unit of interactions across multiple works | DeRue & Ashford, 2010; DeRue, 2011 |
| General | Individuals first determine self-decisions (i.e. should I claim) before evaluating others | Original works discuss self-decisions as foundational to the leadership process | Acton et al., 2019; DeRue, Ashford, & Cotton, 2009 |
| Unique to Perspective | Leader/Follower identity starts at leader/follower self-schema | In its core conceptualization, self-schemas represent the foundation of identity | Lord & Chui, 2018; Lord, Gatti, & Chiu, 2016 |
| Unique to Perspective | Both self-schema comparison and overall leader self-schema drive identity | The self-schema comparison is the driver of claiming behavior, but the extent to which the person is schematic on leadership also matters | Acton et al., 2019; Lord, Gatti, & Chiu, 2016; Markus & Wurf, 1987 |
| Unique to Perspective | Both ILT other characteristic comparisons, as well as the follower self-schema, drive granting behavior | For grants, individuals primarily compare their dyadic partners characteristics to their ILT but the extent to which the person is schematic on followership also matters | Epitropaki et al., 2017; Lord & Brown, 2003 |
| Unique to Perspective | Individuals adjust both their leader and follower identities based upon the role of followers in dyadic interactions. If a person does not attempt leadership, identities do not change | The social cognitive perspective argues that the leadership identity process is driven by the *follower* perception of a leader action | Lord & Chui, 2018; Lord & Maher, 2002 |
| Unique to Perspective | Individuals leadership perception of others is increased from the other persons congruence with their implicit leadership theory | The social cognitive perspective argues that changes in perception are fully attributed to the ILT comparison process | Shondrick, Dinh, & Lord (2010); Dinh & Lord (2012) |