

A STORY

“Is Systems Thinking Critical in the Engineering Community in the U.S. Shipbuilding Industry and if yes, in What Category of Employees”

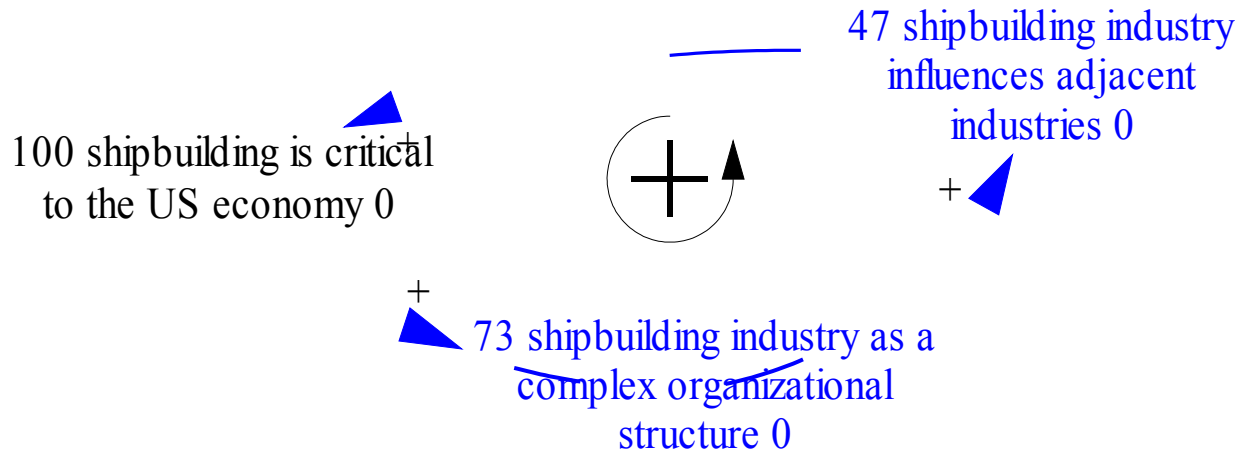
by Tatyana Ishutkina

January 4, 2011

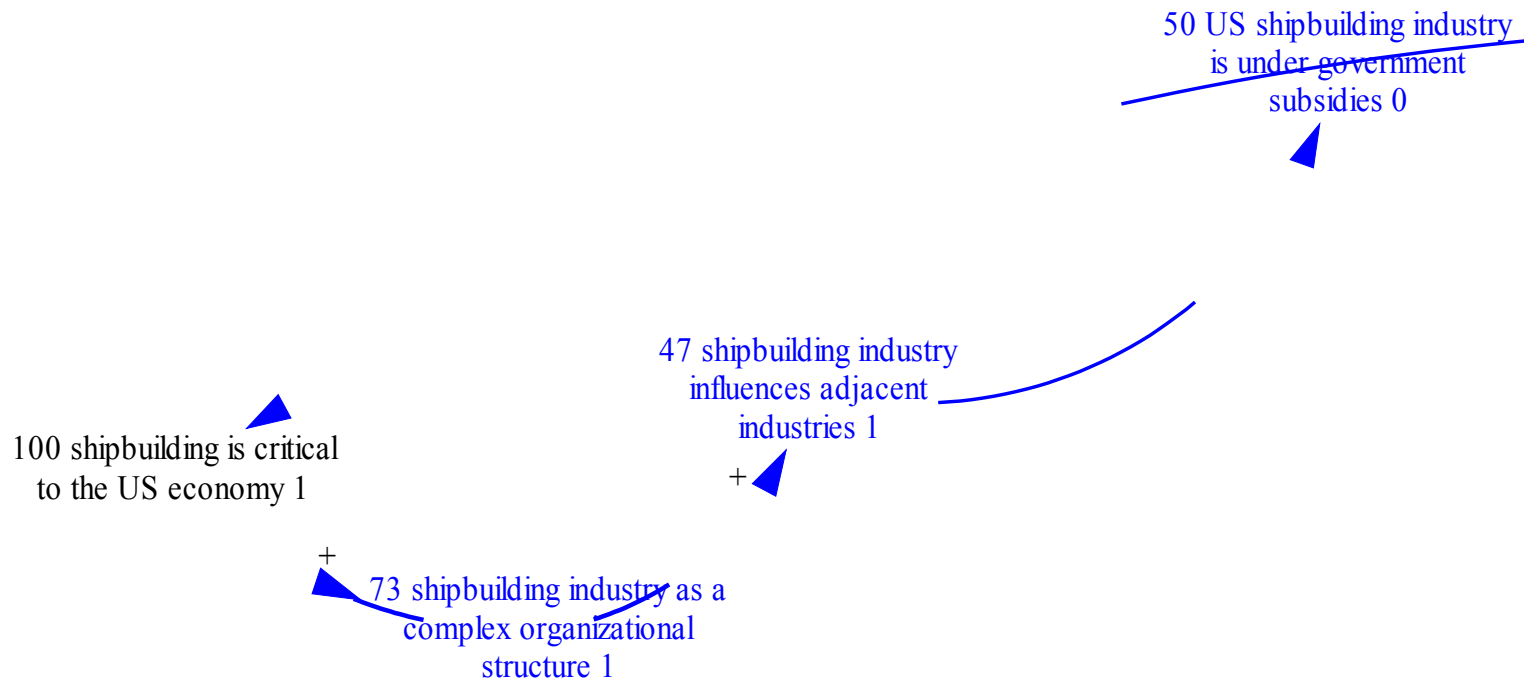
Map Legend

Goal	(black)
<i>Strategies</i>	<i>(purple Italic)</i>
Issues	(purple)
Options	(light blue)
Additional Argument	(blue)

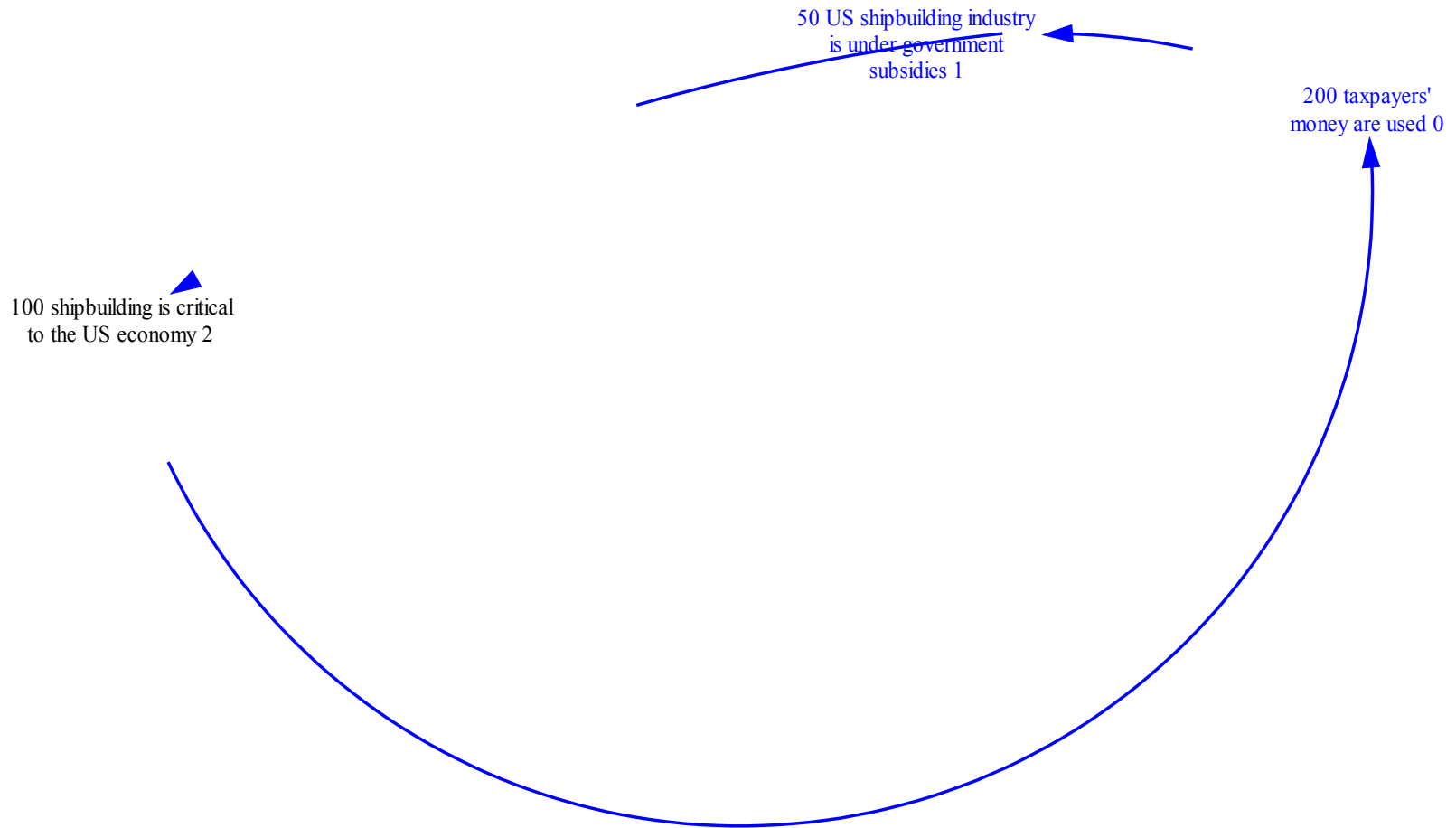
U.S. Shipbuilding Industry: Complexity and Influence to the Other Industries



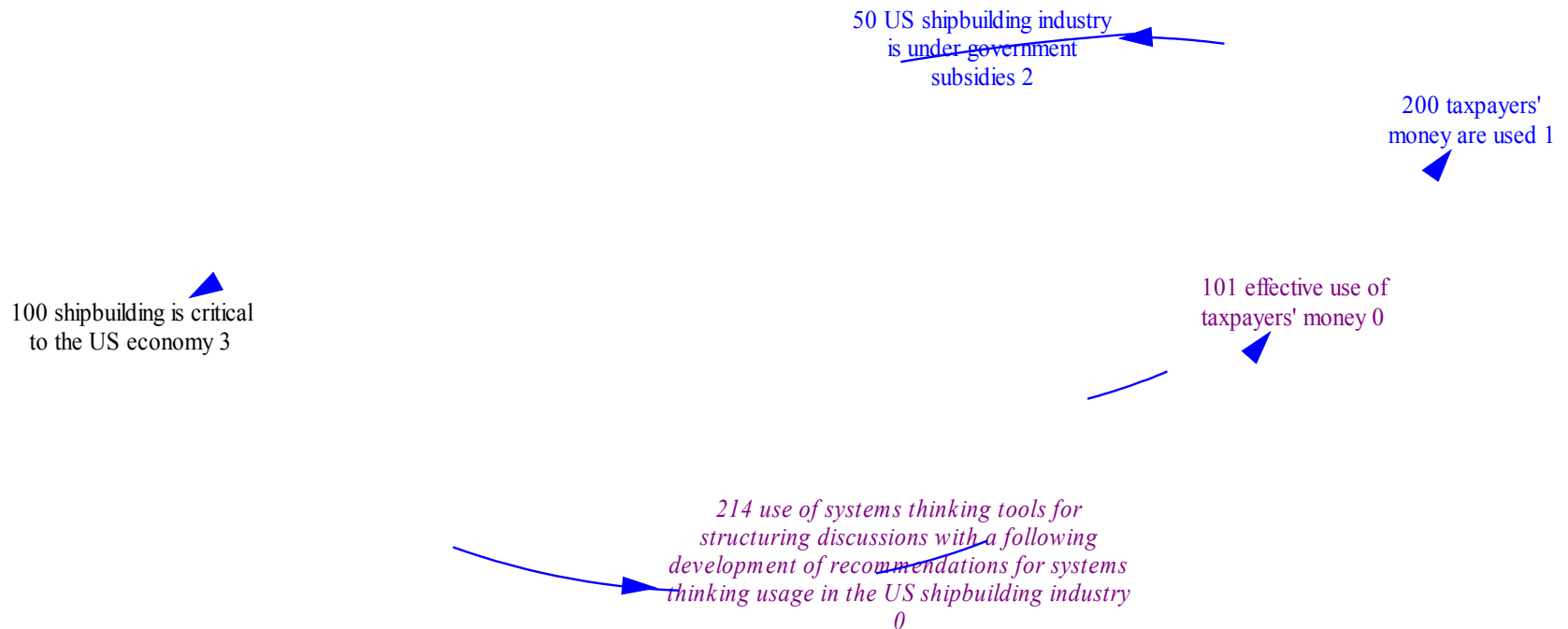
U.S. Shipbuilding Industry: Government Assistance



U.S. Government Use of Taxpayers' Money to Support U.S. Shipbuilding Industry



Effectiveness of Use of Taxpayers' Money in the U.S. Shipbuilding Industry



Research Direction: Characterization of the U.S. Shipbuilding Industry Potential

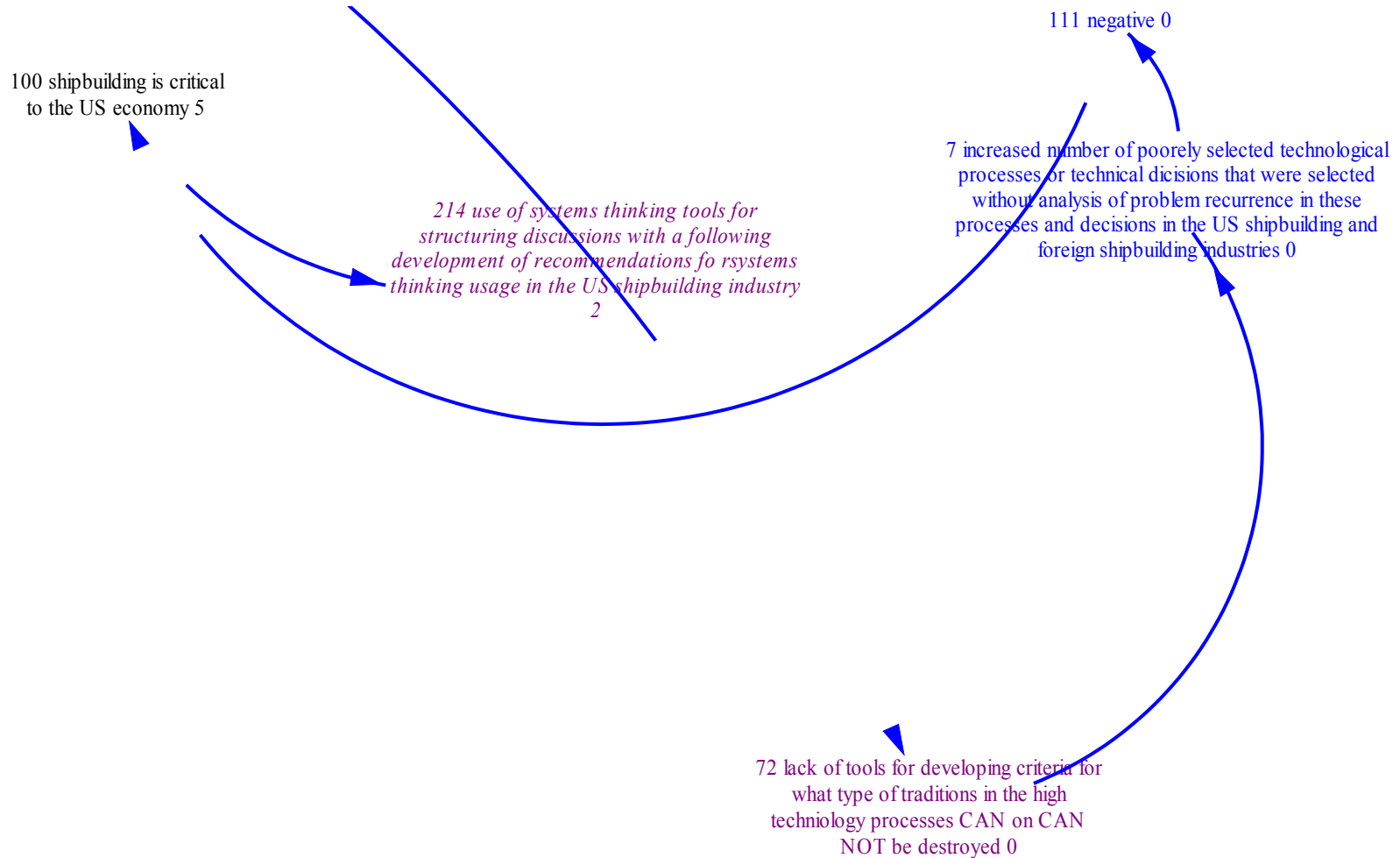
100 shipbuilding is critical
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214 use of systems thinking tools for
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development of recommendations for systems
thinking usage in the US shipbuilding industry
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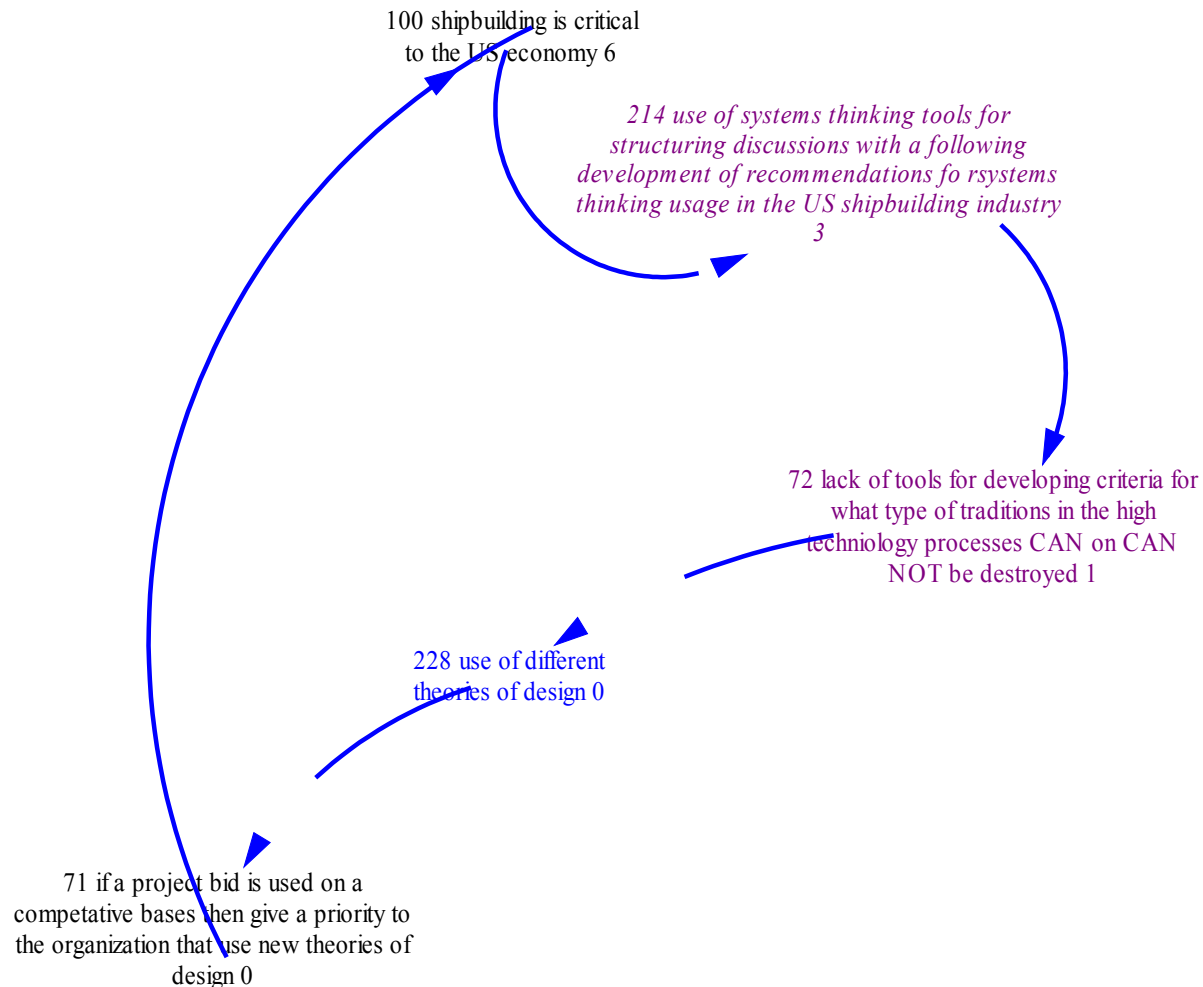
201 What factors characterize a
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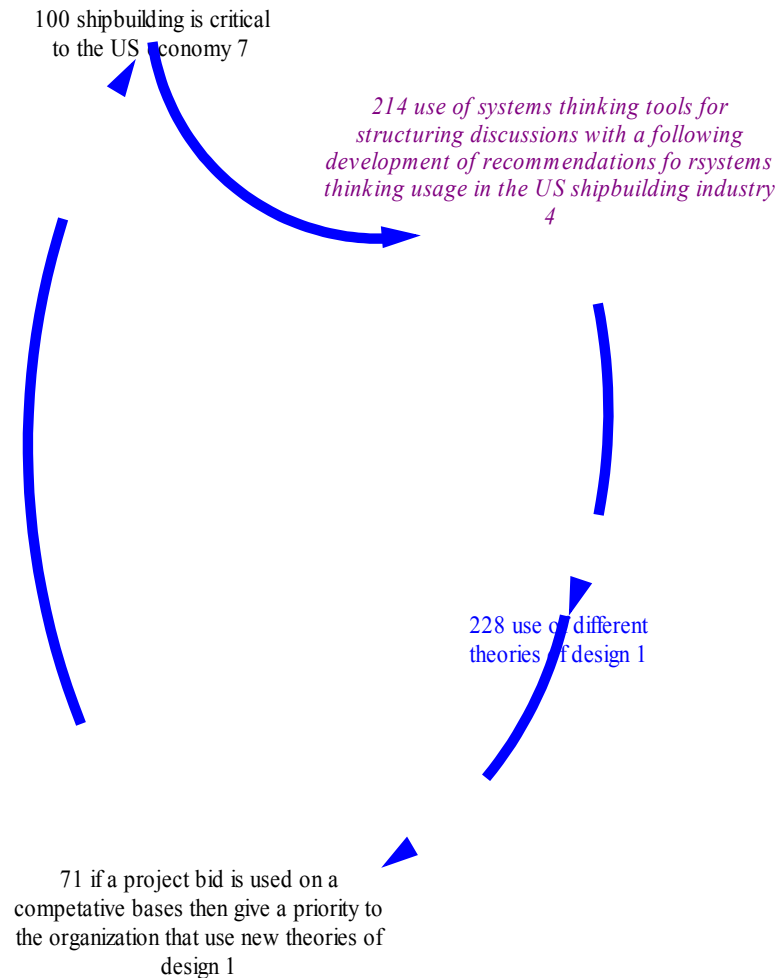
Criticality of Shipbuilding to the U.S. Economy: Traditionalism



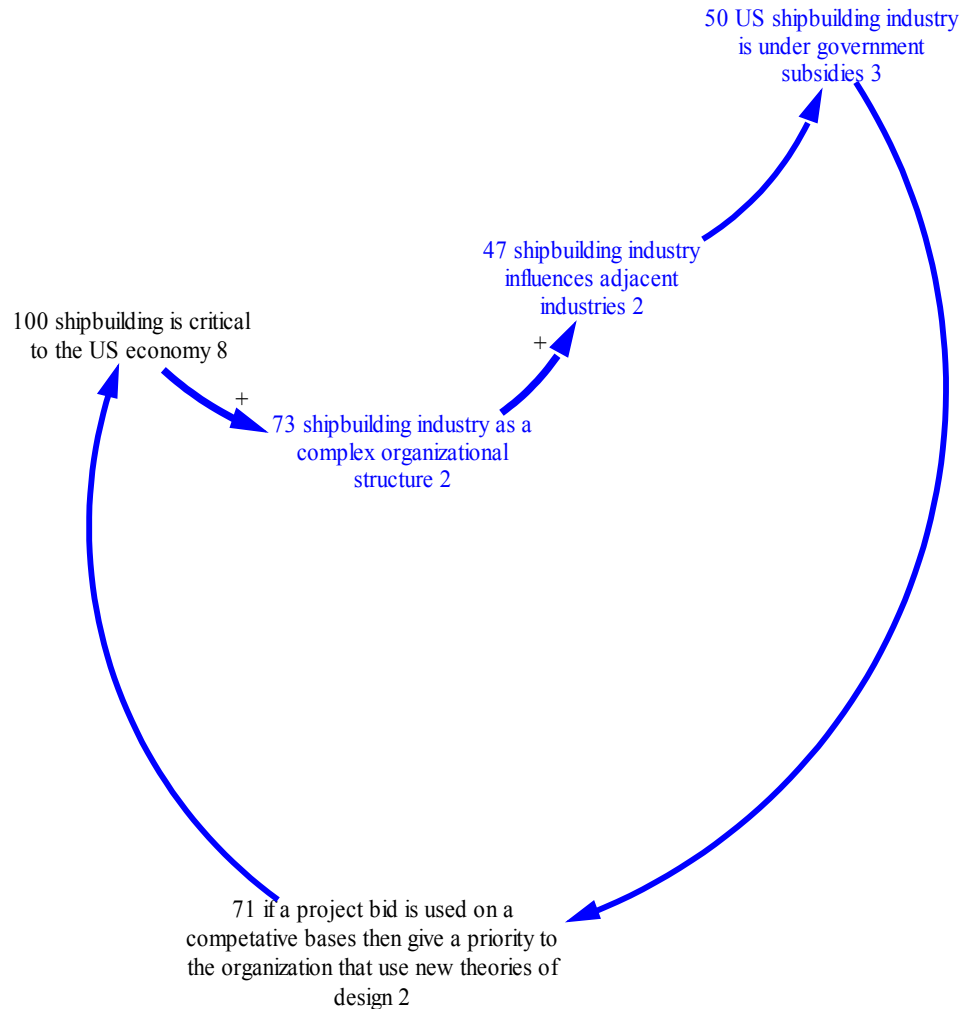
Criticality of Shipbuilding to the U.S. Economy: Use of Different Theories of Design for Competitiveness



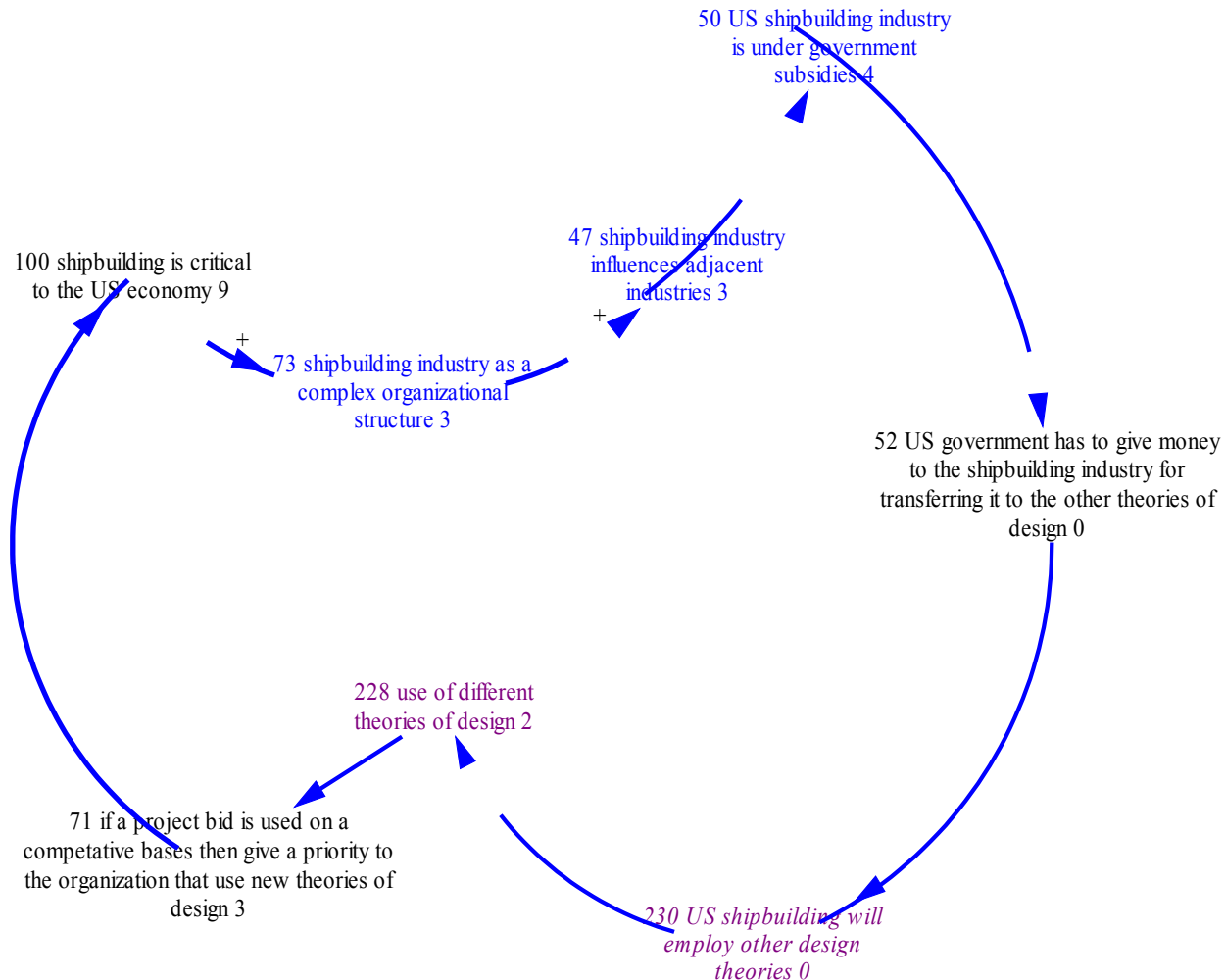
Use of Different Theories of Design without Use of High Technologies



Criticality of Shipbuilding to the U.S. Economy: Competitiveness



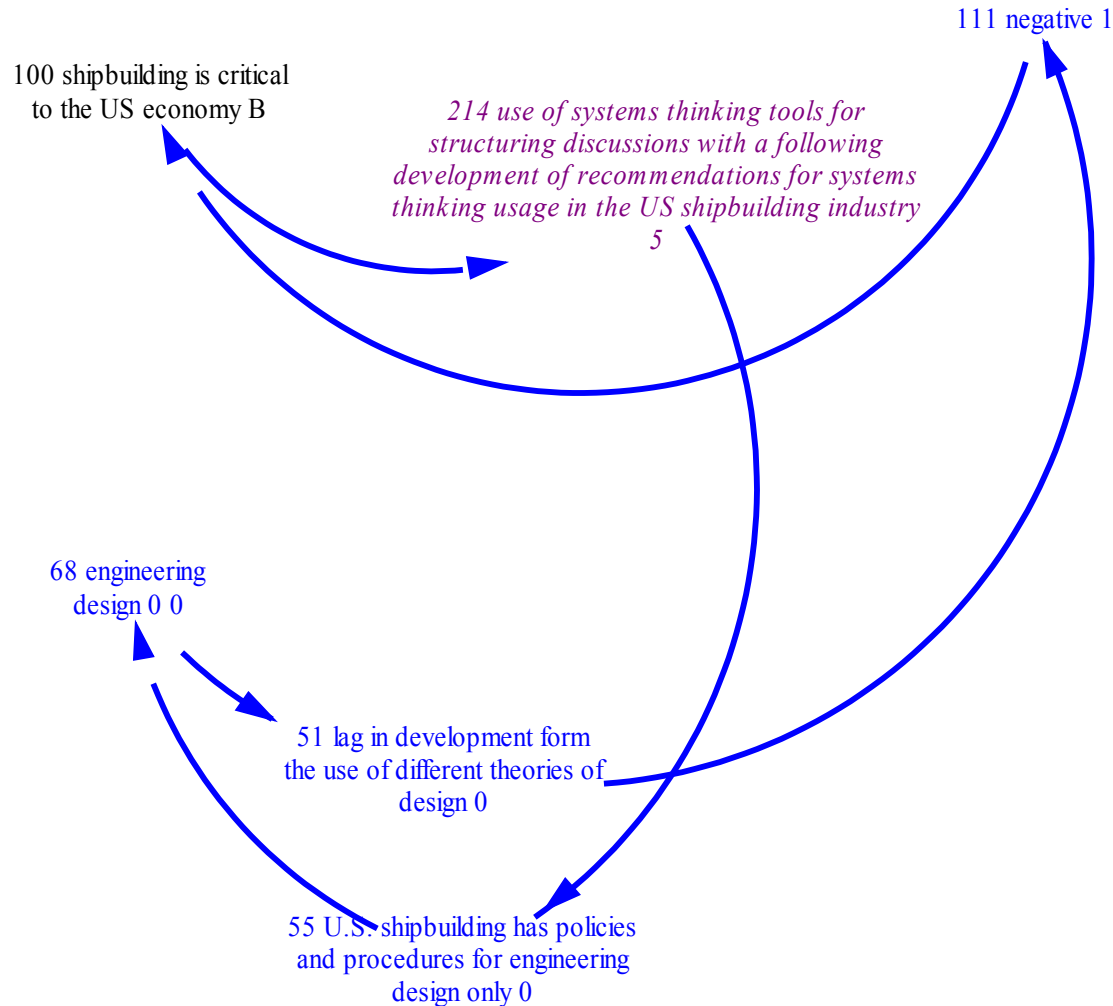
Criticality of Shipbuilding to the U.S. Economy: Use of Engineering Theory of Design for 100 + years



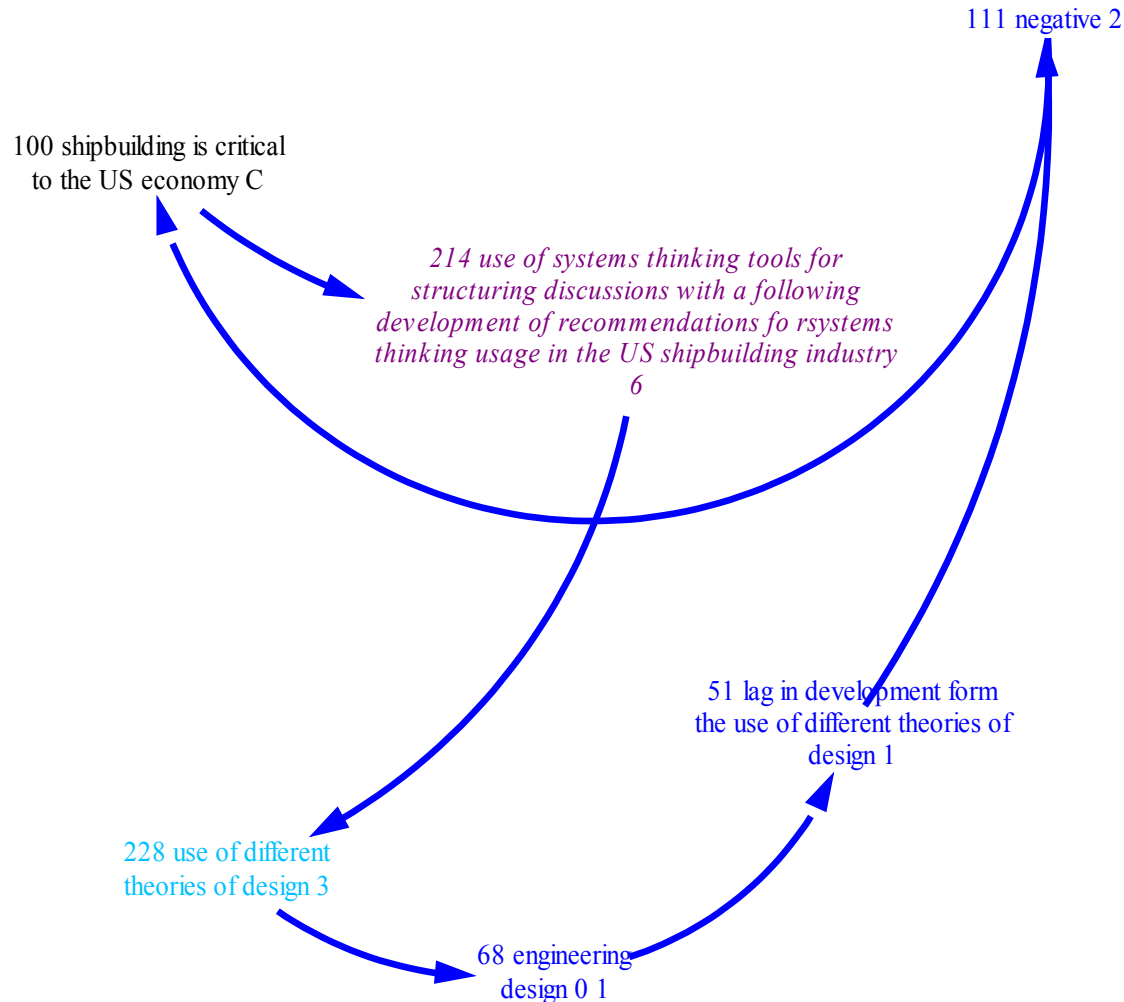
Criticality of Shipbuilding to the U.S. Economy: Who will be the Leader?



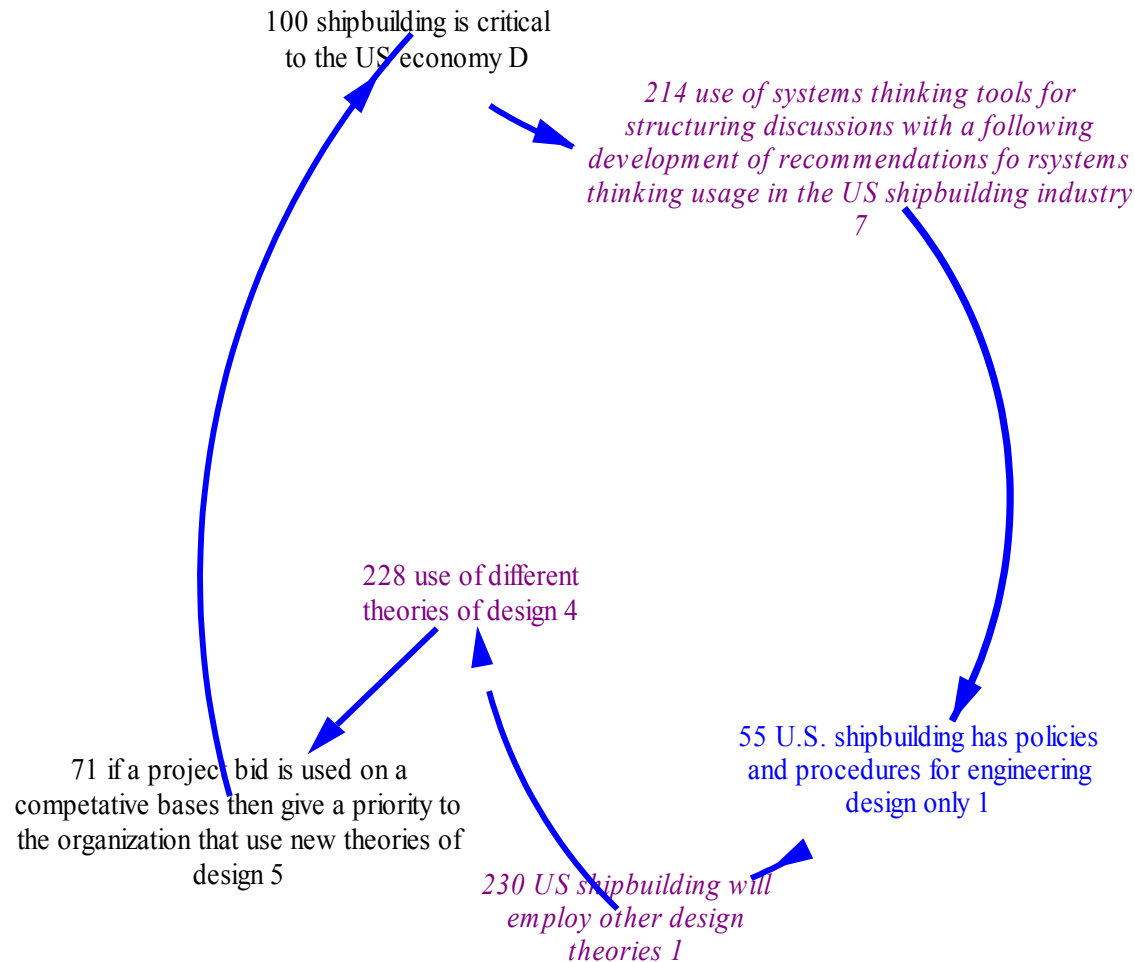
Criticality of Shipbuilding to the U.S. Economy: Use of Systems Thinking Tools



Criticality of Shipbuilding to the U.S. Economy: Who will be the Initiator?



Criticality of Shipbuilding to the U.S. Economy: Theories of Design and History Length



Criticality of Shipbuilding to the U.S. Economy: Opportunity for Competitiveness in the Economy Downturn

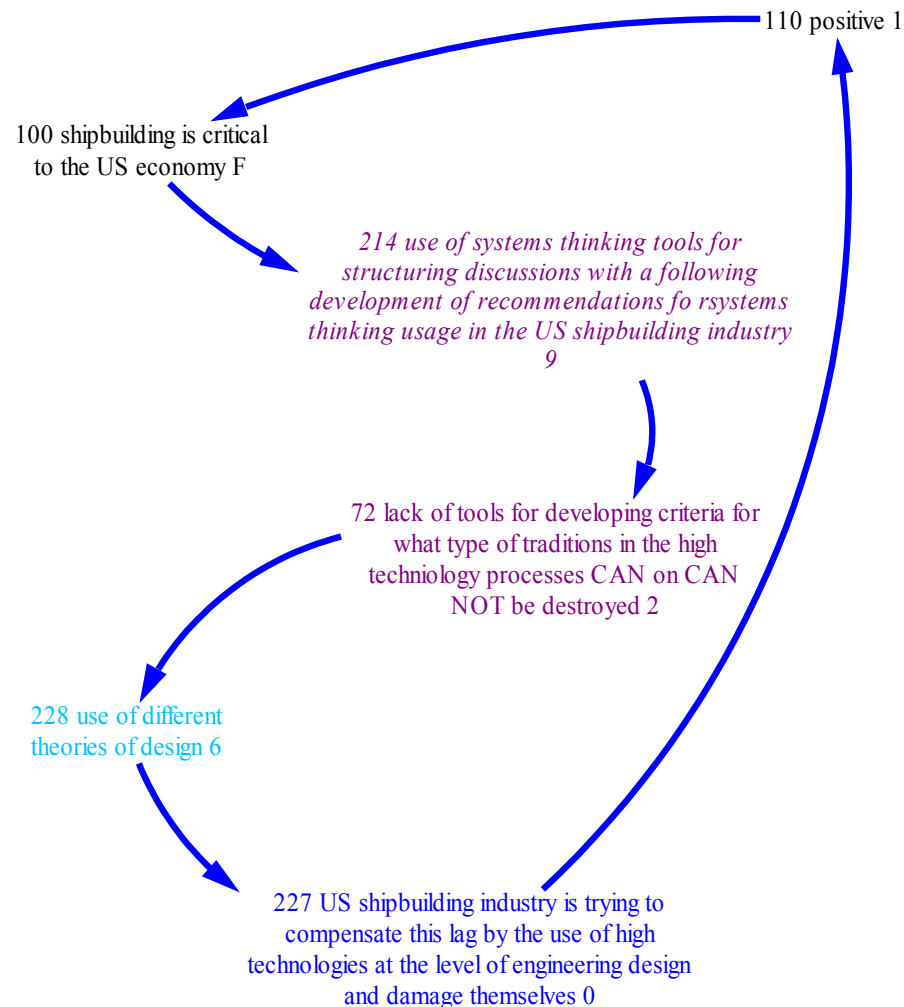
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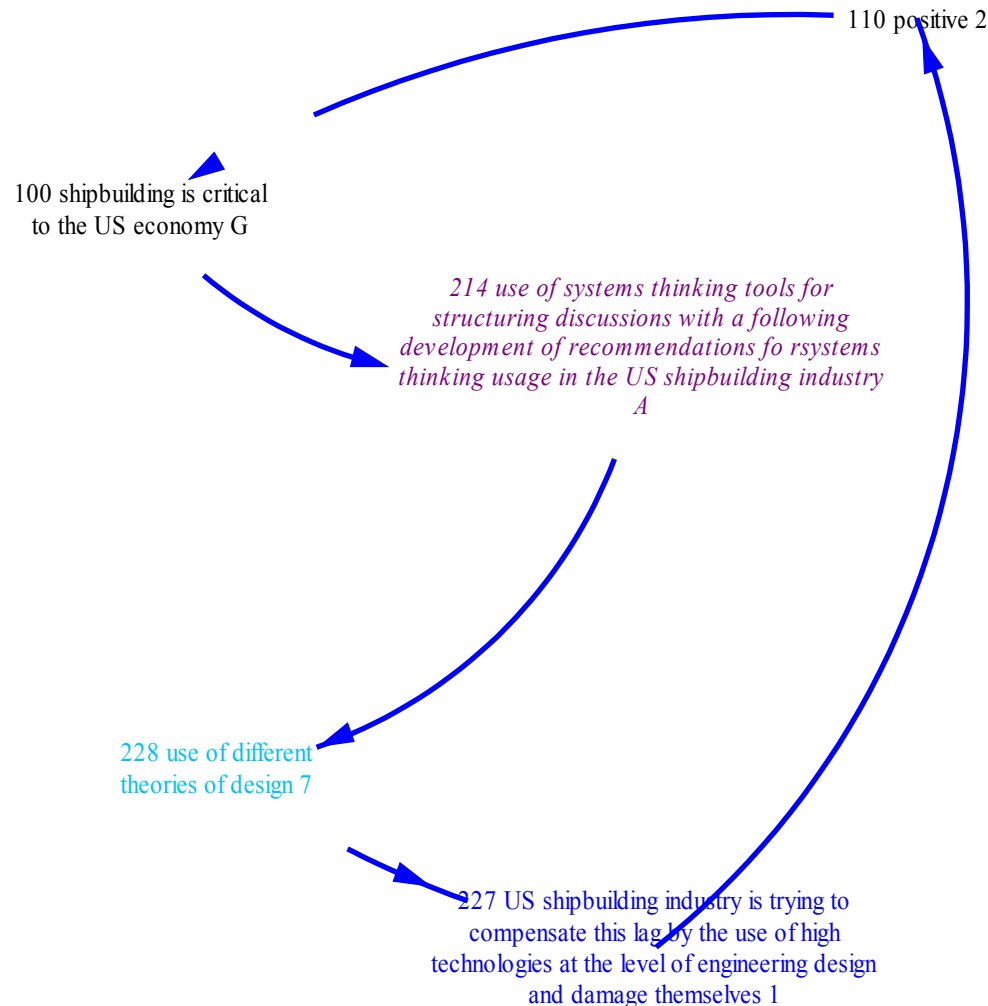
*228 use of different
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71 if a project bid is used on a
competative bases then give a priority to
the organization that use new theories of
design 6

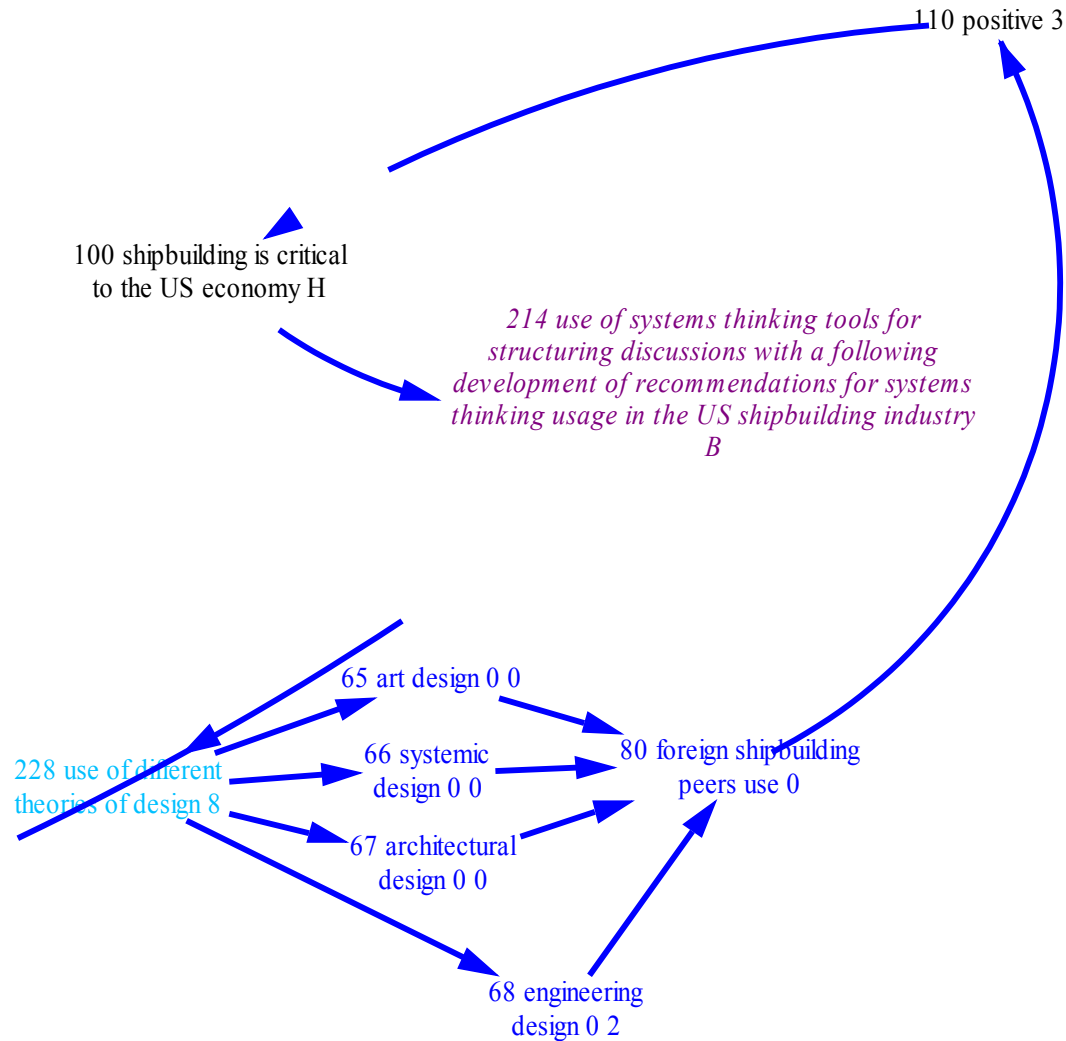
Criticality of Shipbuilding to the U.S. Economy: Knowing what CAN and CAN NOT be Destroyed



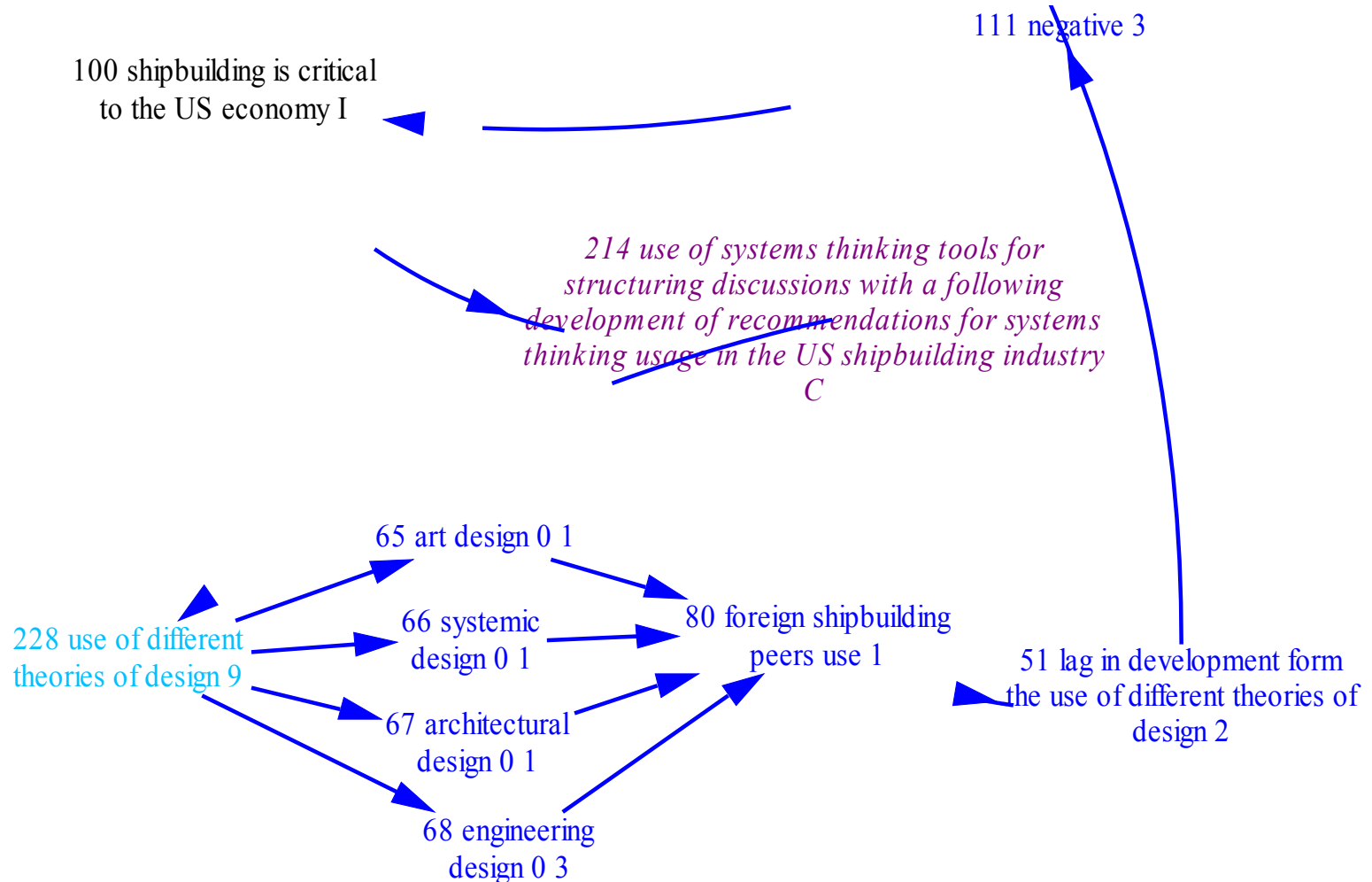
Criticality of Shipbuilding to the U.S. Economy: Solving Issues by Other, Unknown yet, Methods



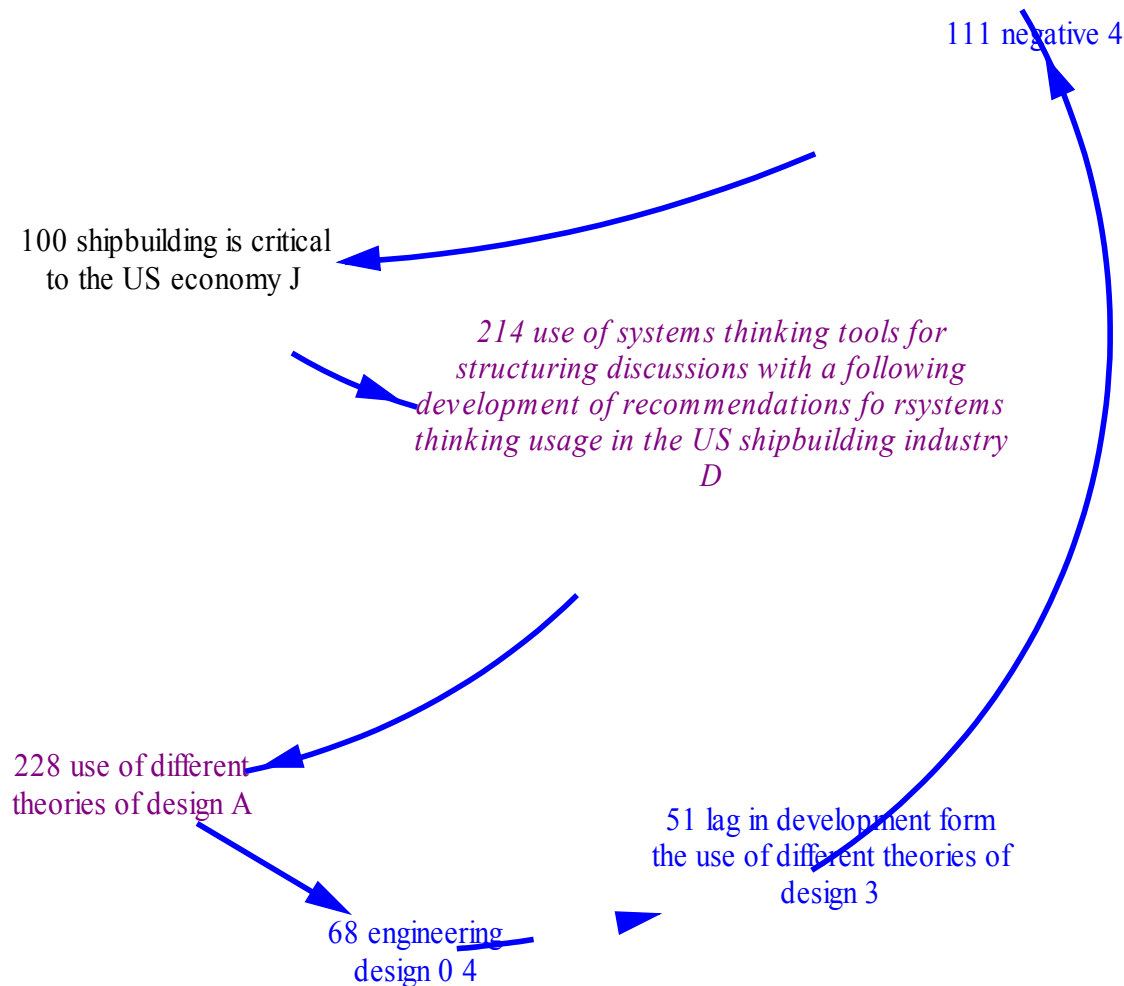
Criticality of Shipbuilding to the U.S. Economy: Lessons Learned from European History of Shipbuilding



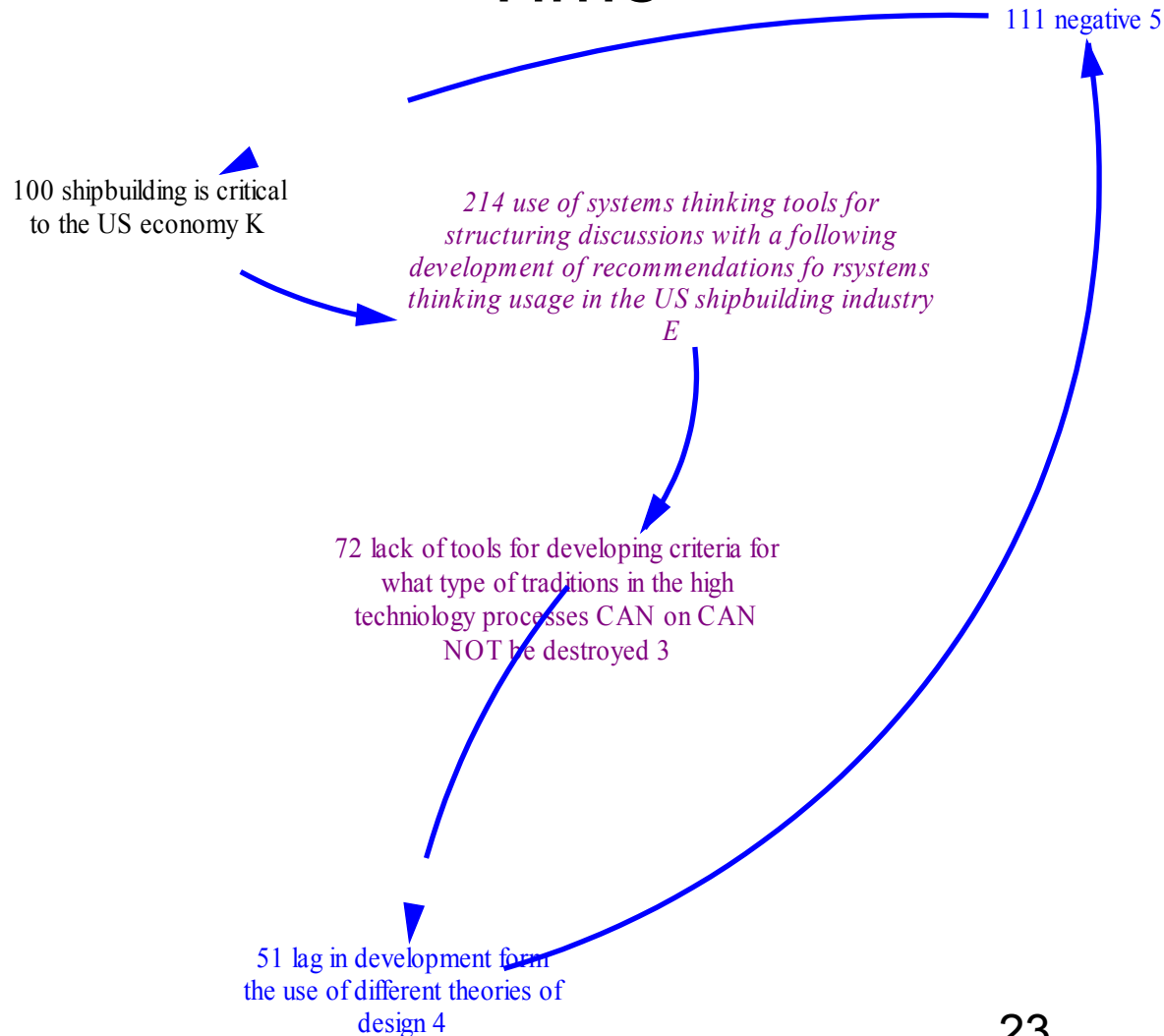
Criticality of Shipbuilding to the U.S. Economy: Struggle for a Change



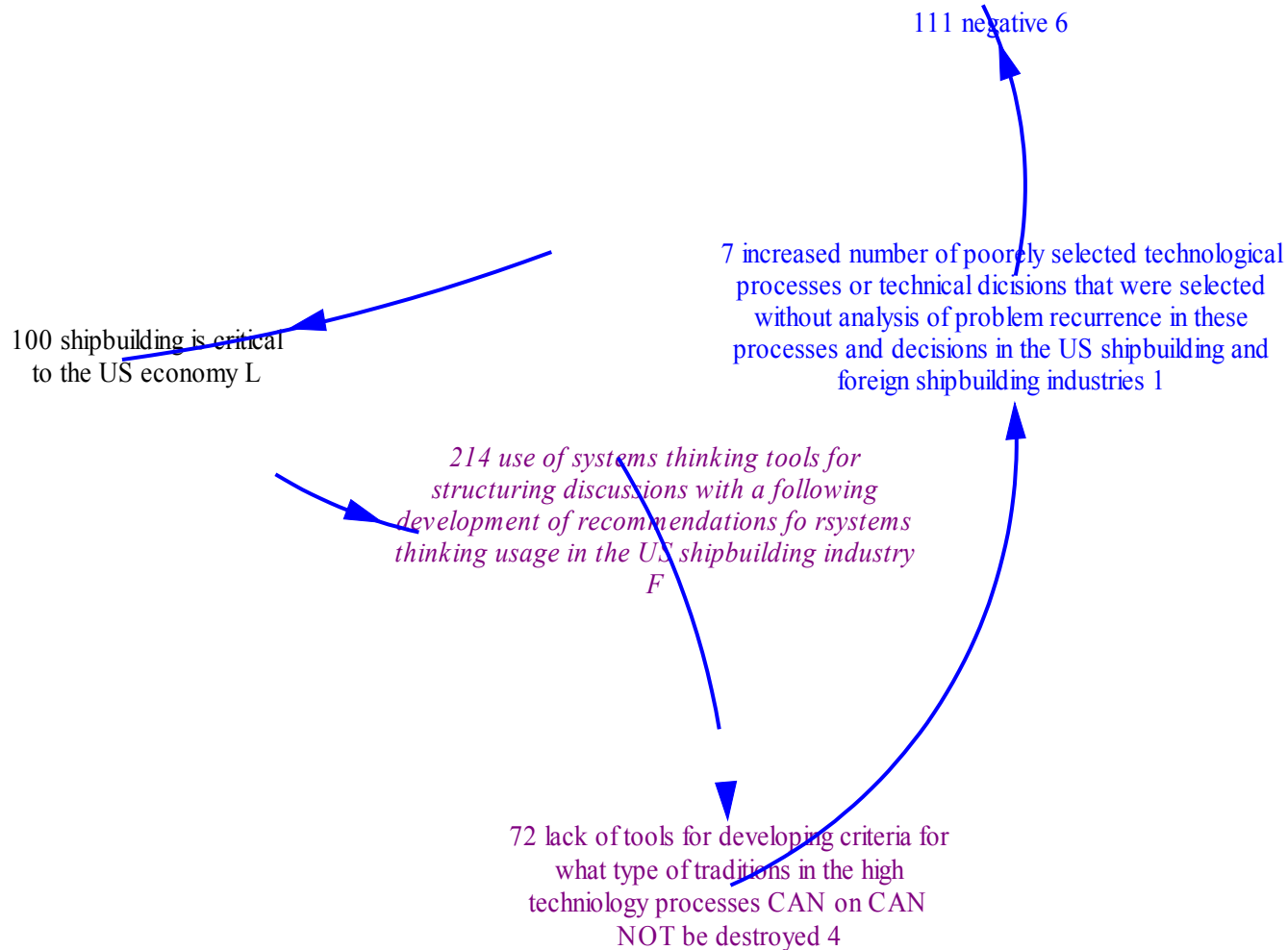
“Engineering Design Only” and Defining its Negativity in the U.S. Shipbuilding Industry



Criticality of Shipbuilding to the U.S. Economy: How Design Theories are Connected with Time



Criticality of Shipbuilding to the U.S. Economy: High Technologies Cause Accidents before Deployment to the Missions



Effectiveness and Exclusion of “Quick Money”

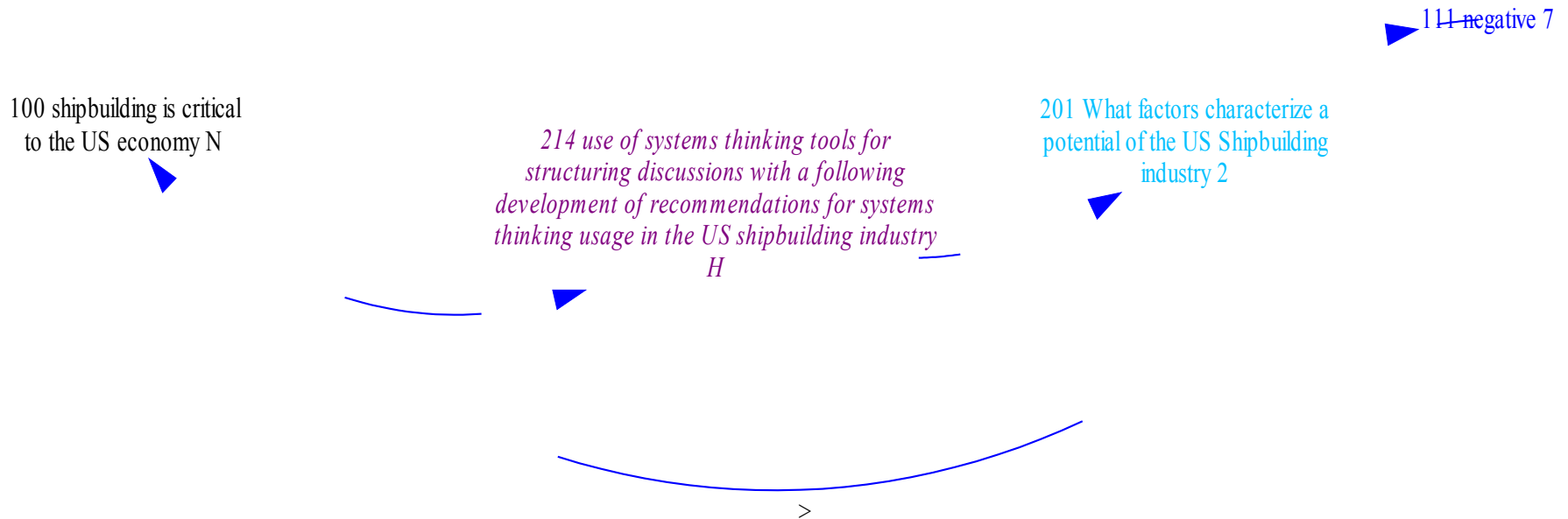
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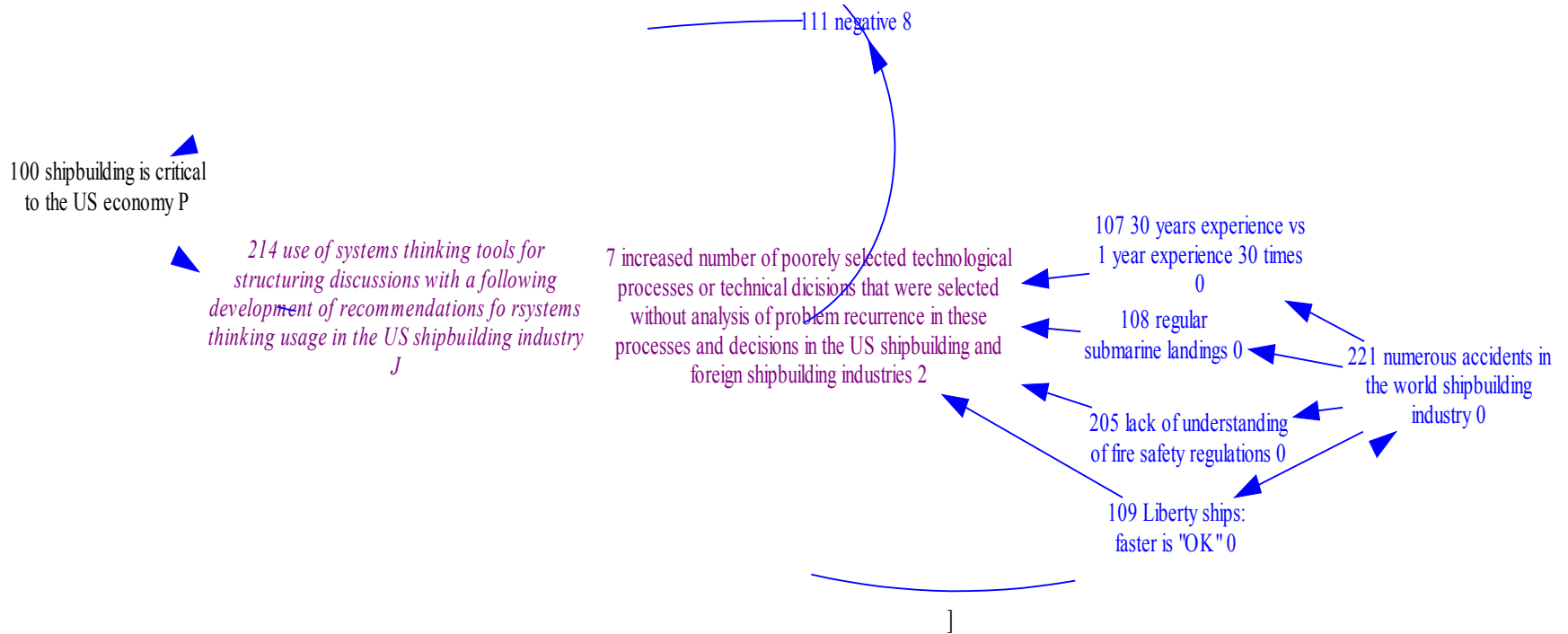
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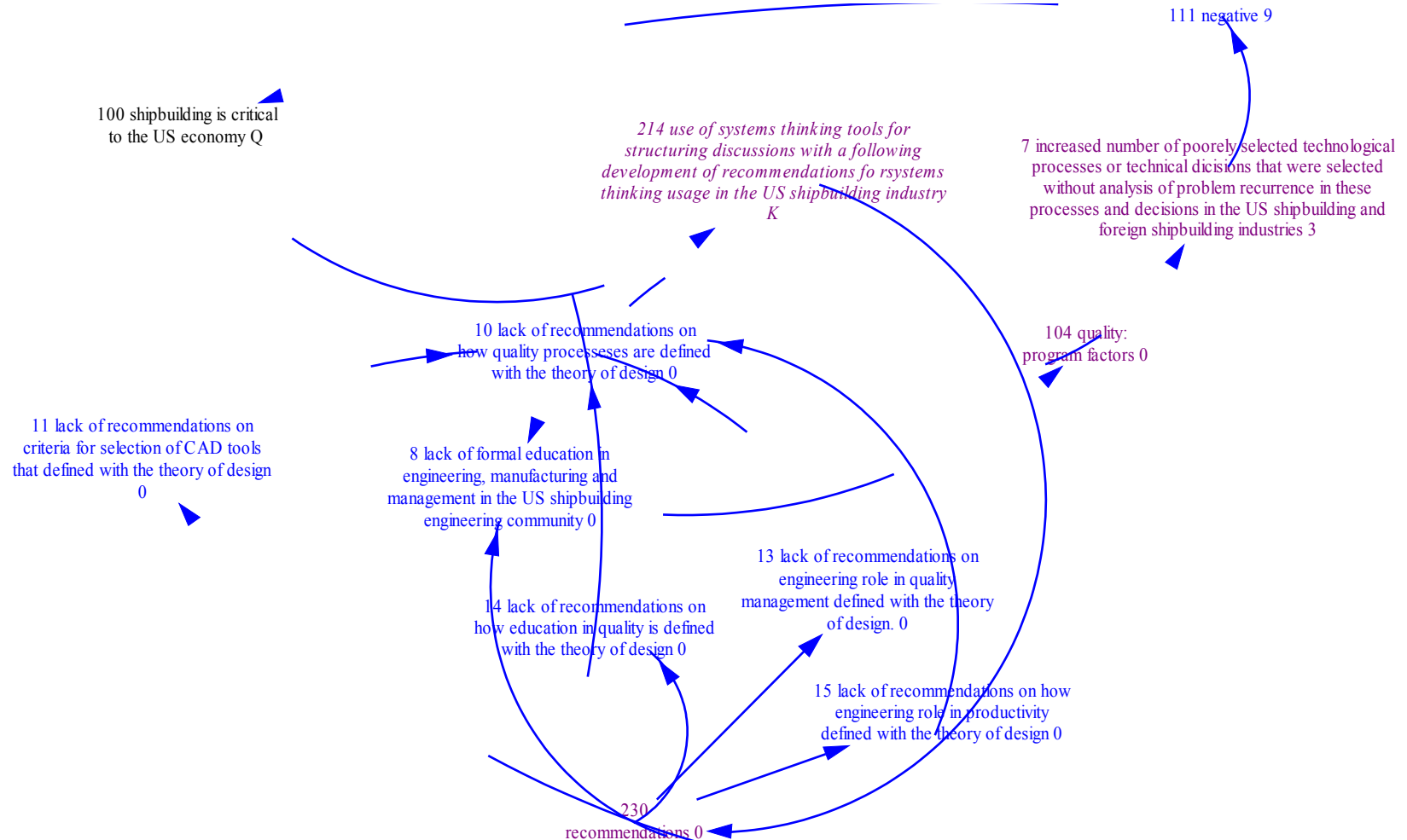
Systems Thinking Tools: Second Side of the Medal



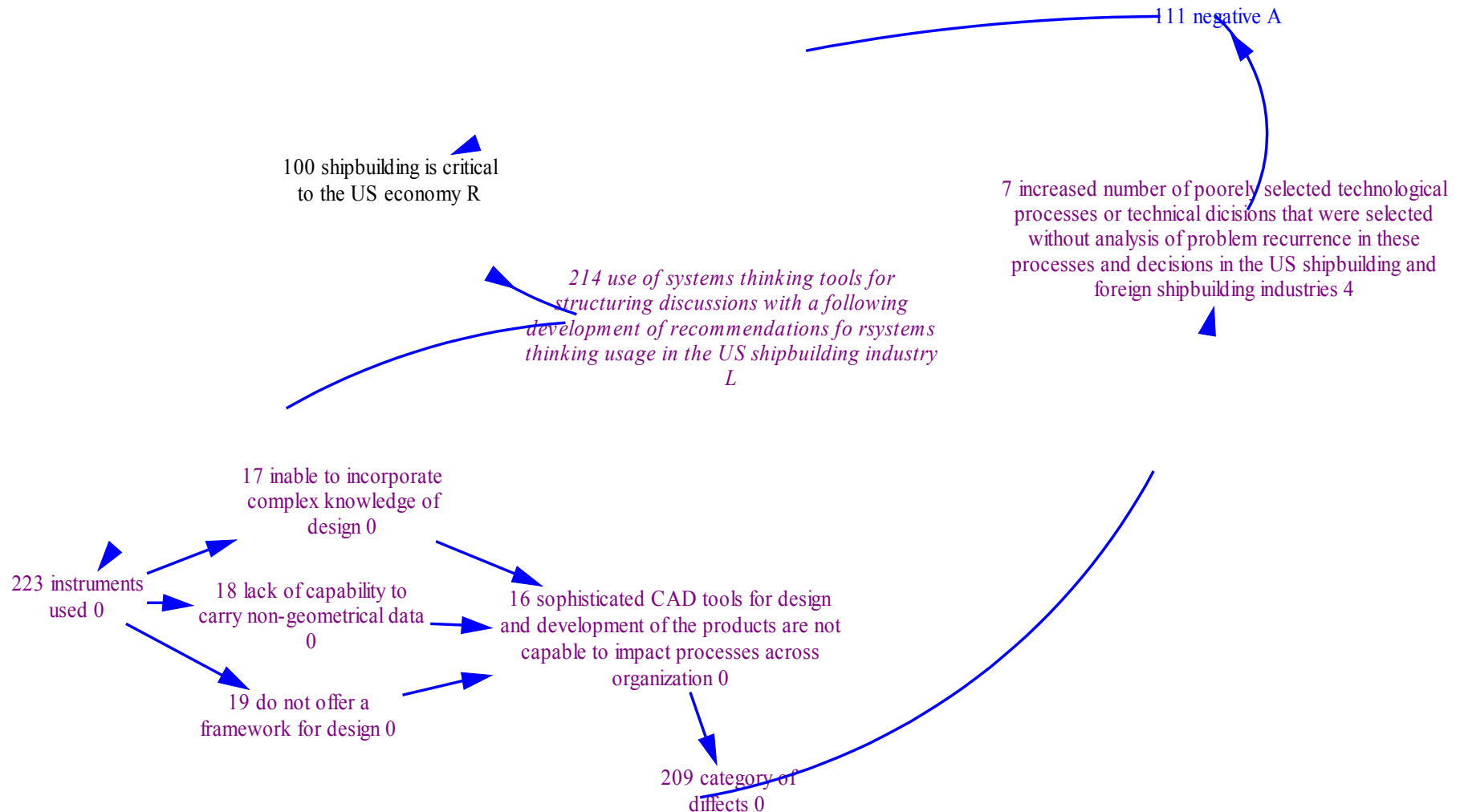
There are NO Perfect Tools



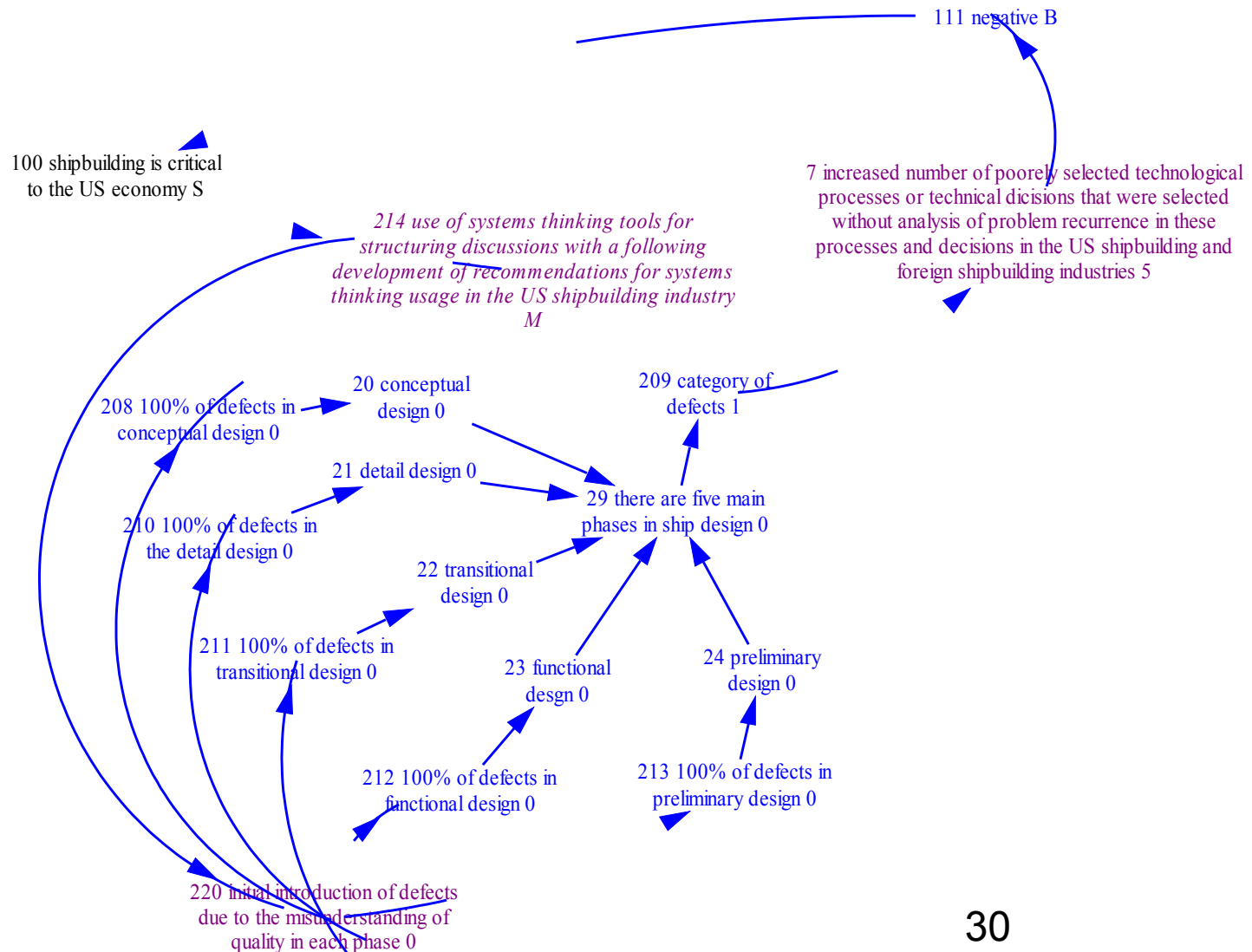
Attachment to Old-established Practices and Traditionalism in the U.S. Shipbuilding Industry



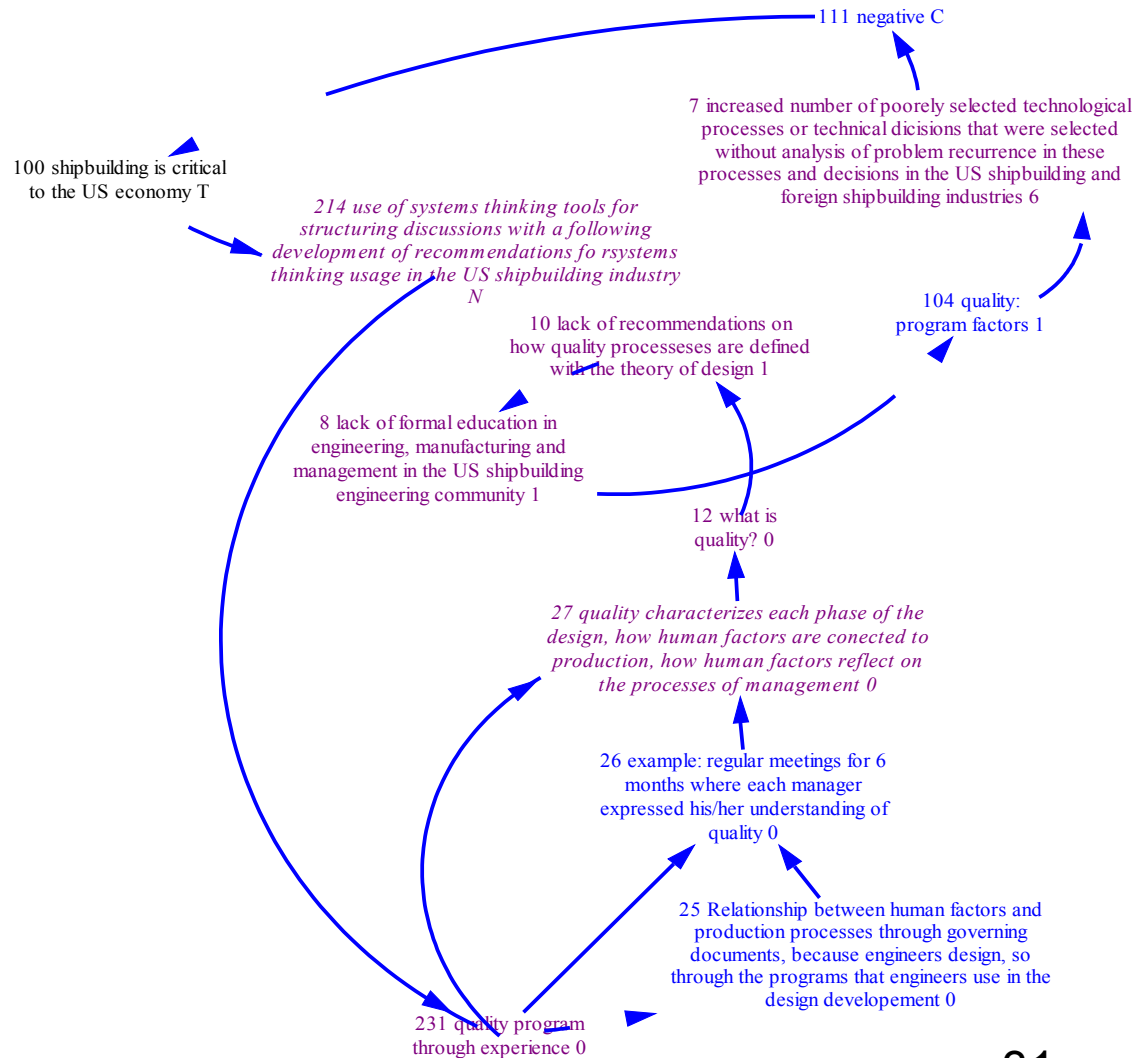
Problem Structuring and Decision Making Process in the U.S. Shipbuilding Industry



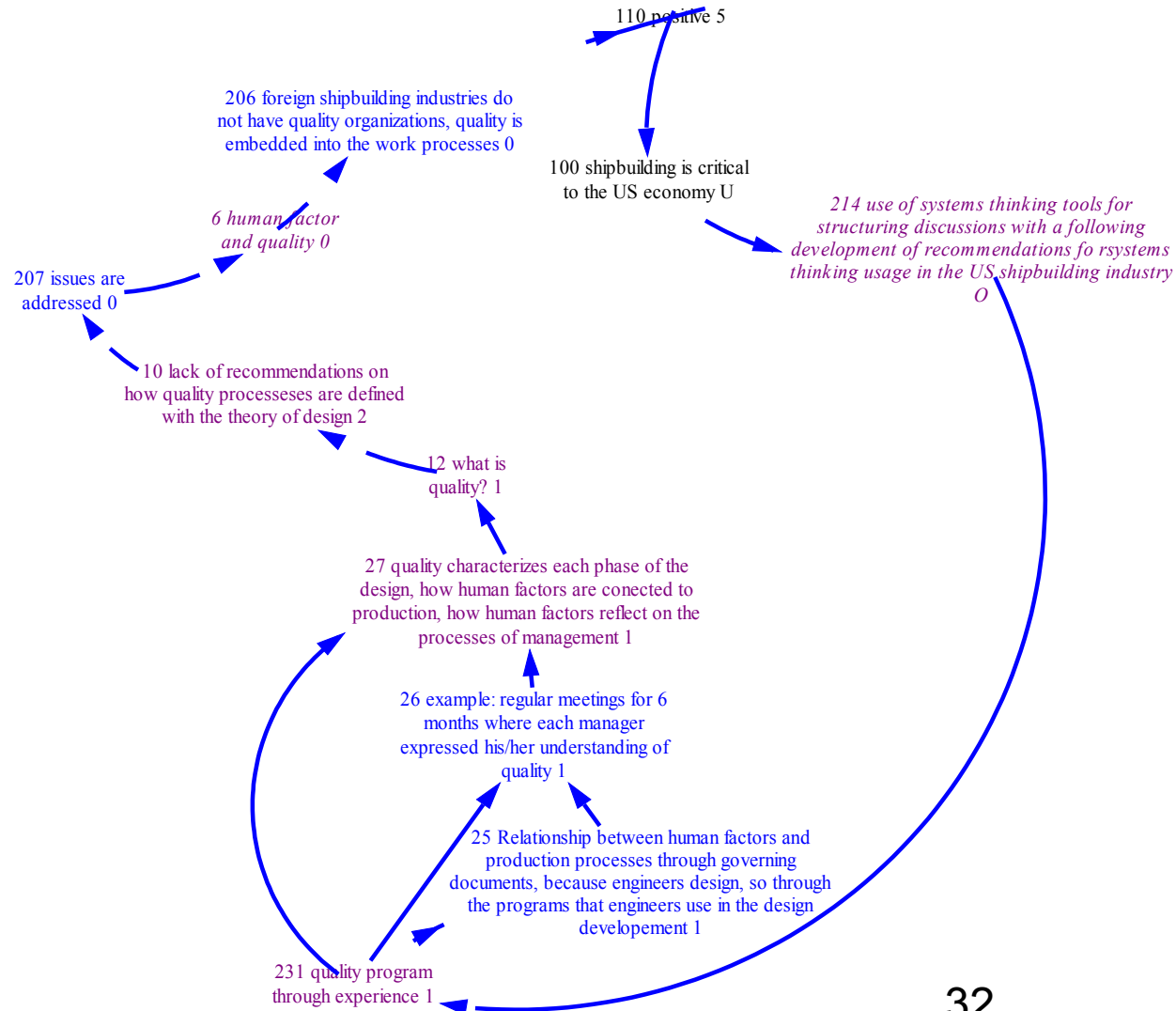
A Need for Quality Foundations in Each Phase of Design in the U.S. Shipbuilding Industry



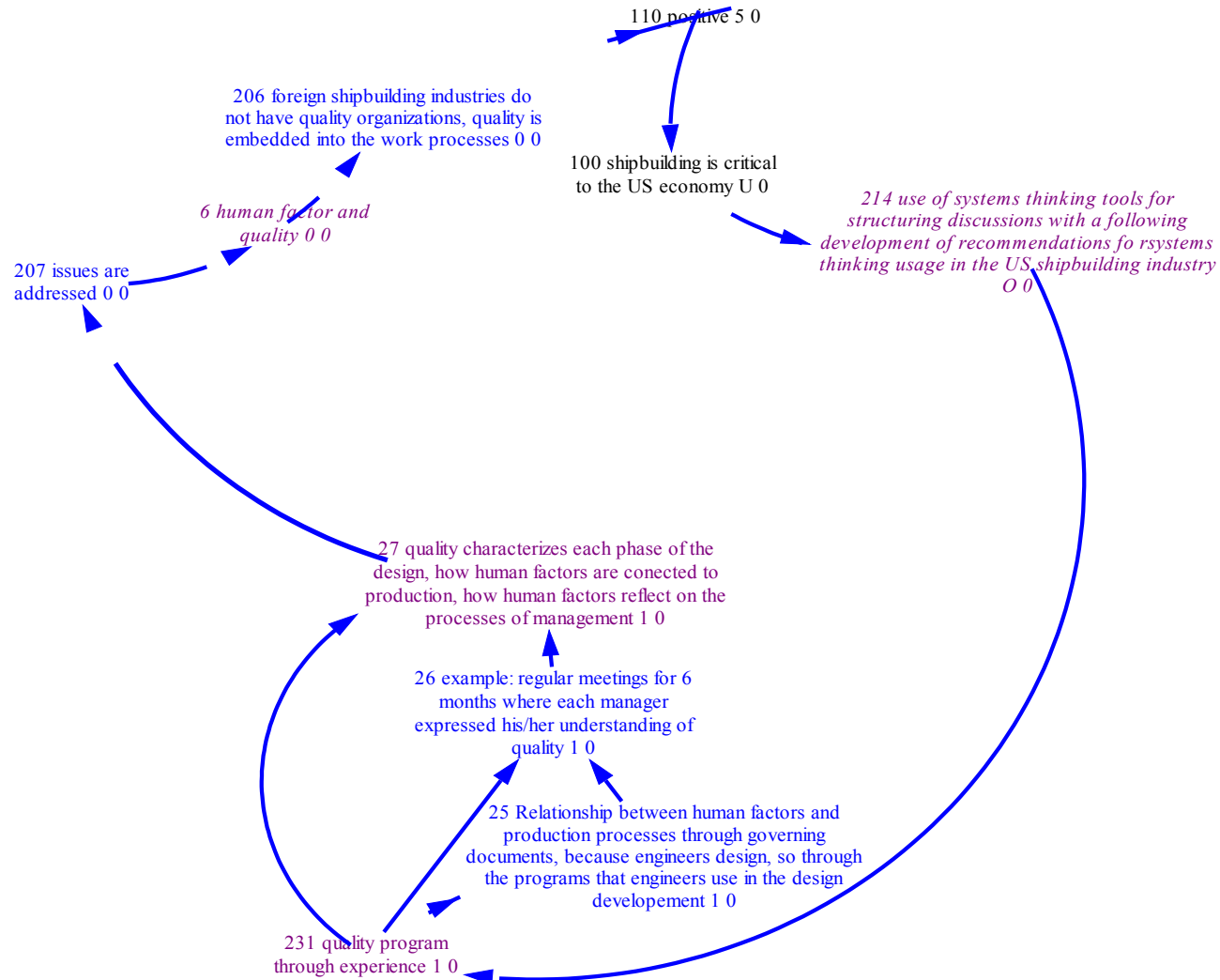
Quality in the U.S. Shipbuilding Industry is a Science, not an Intuition



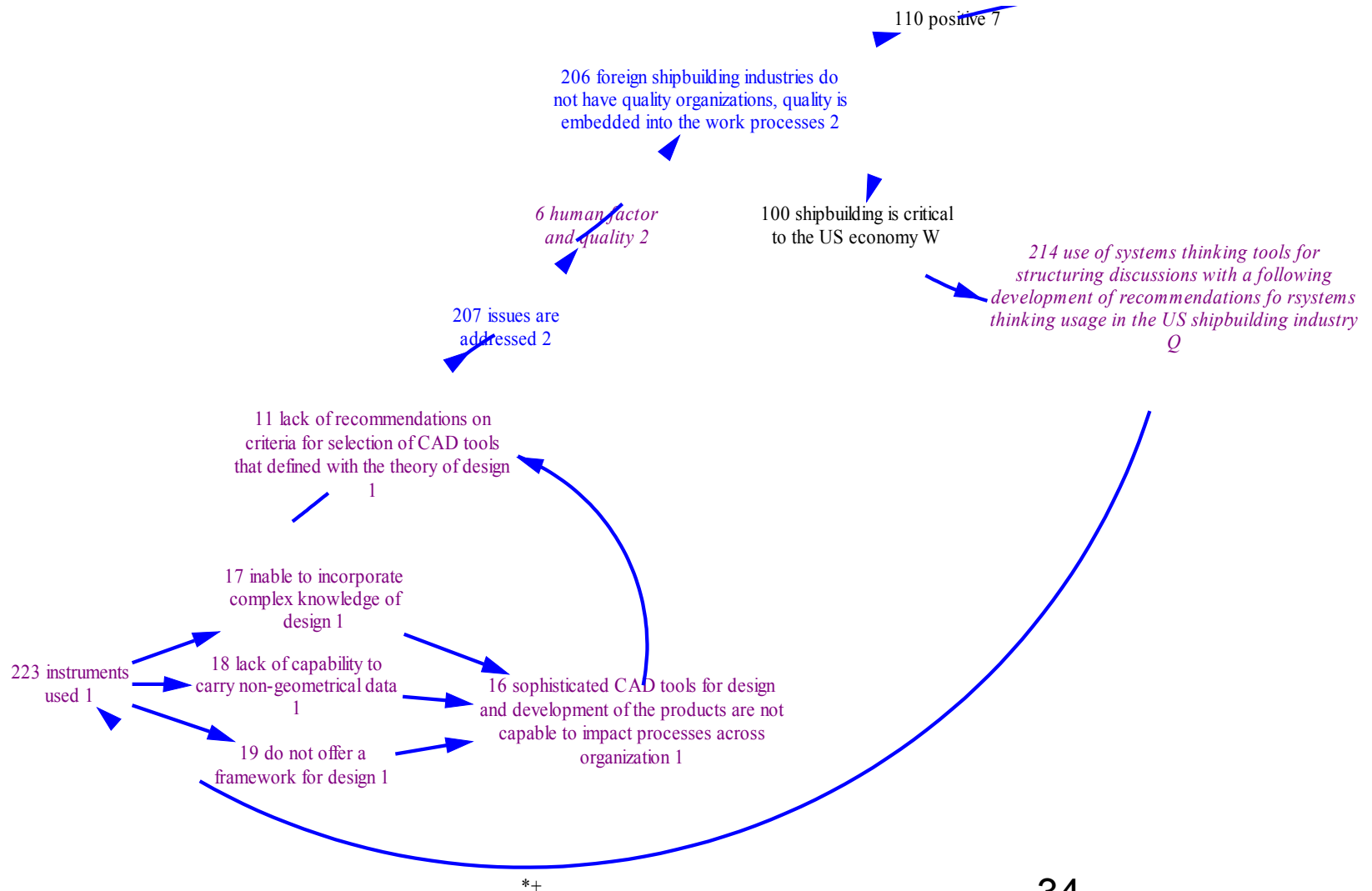
Transformation of Quality in the U.S. Shipbuilding Industry



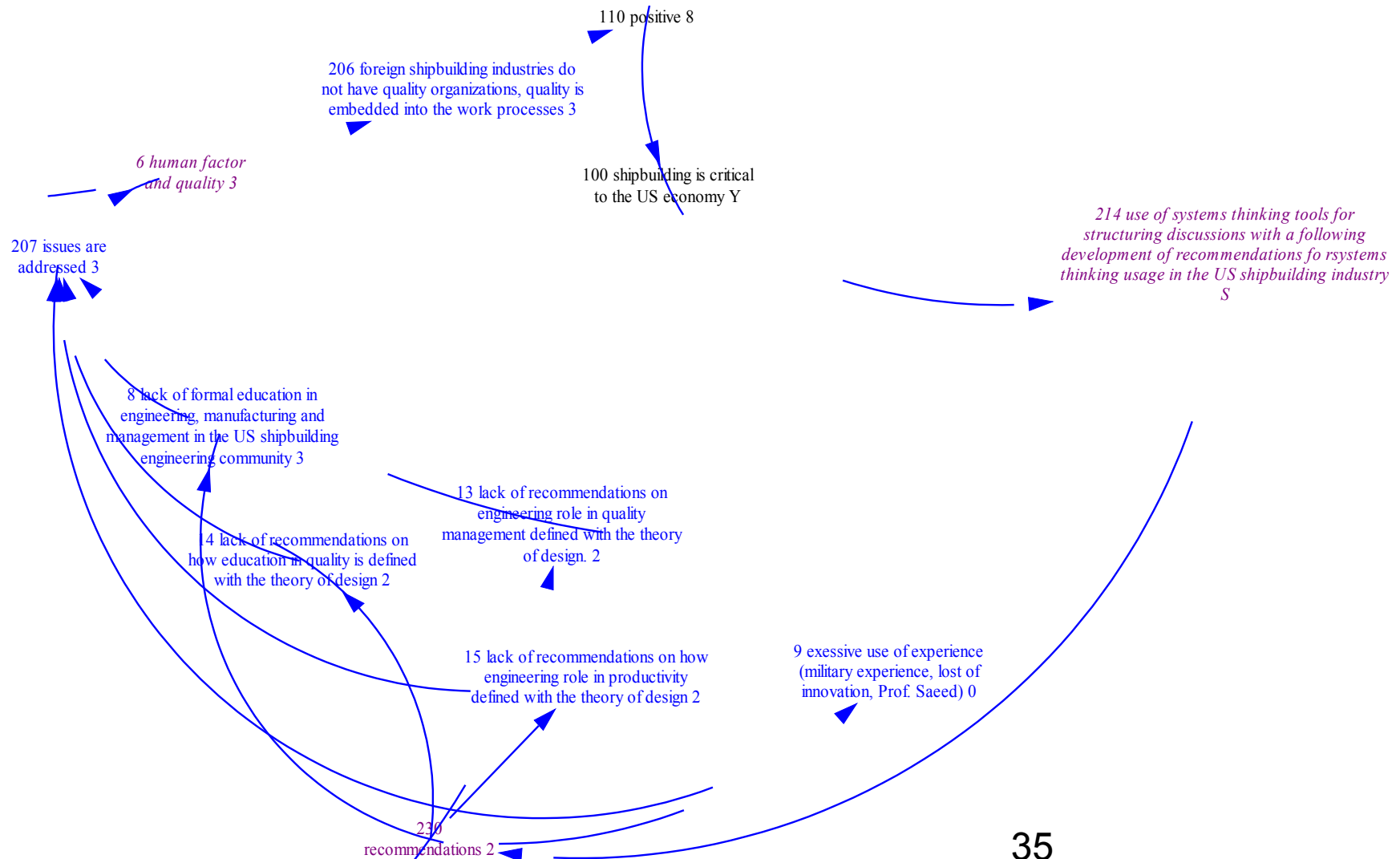
Human Factor as Manager's Experience in the U.S. Shipbuilding Industry



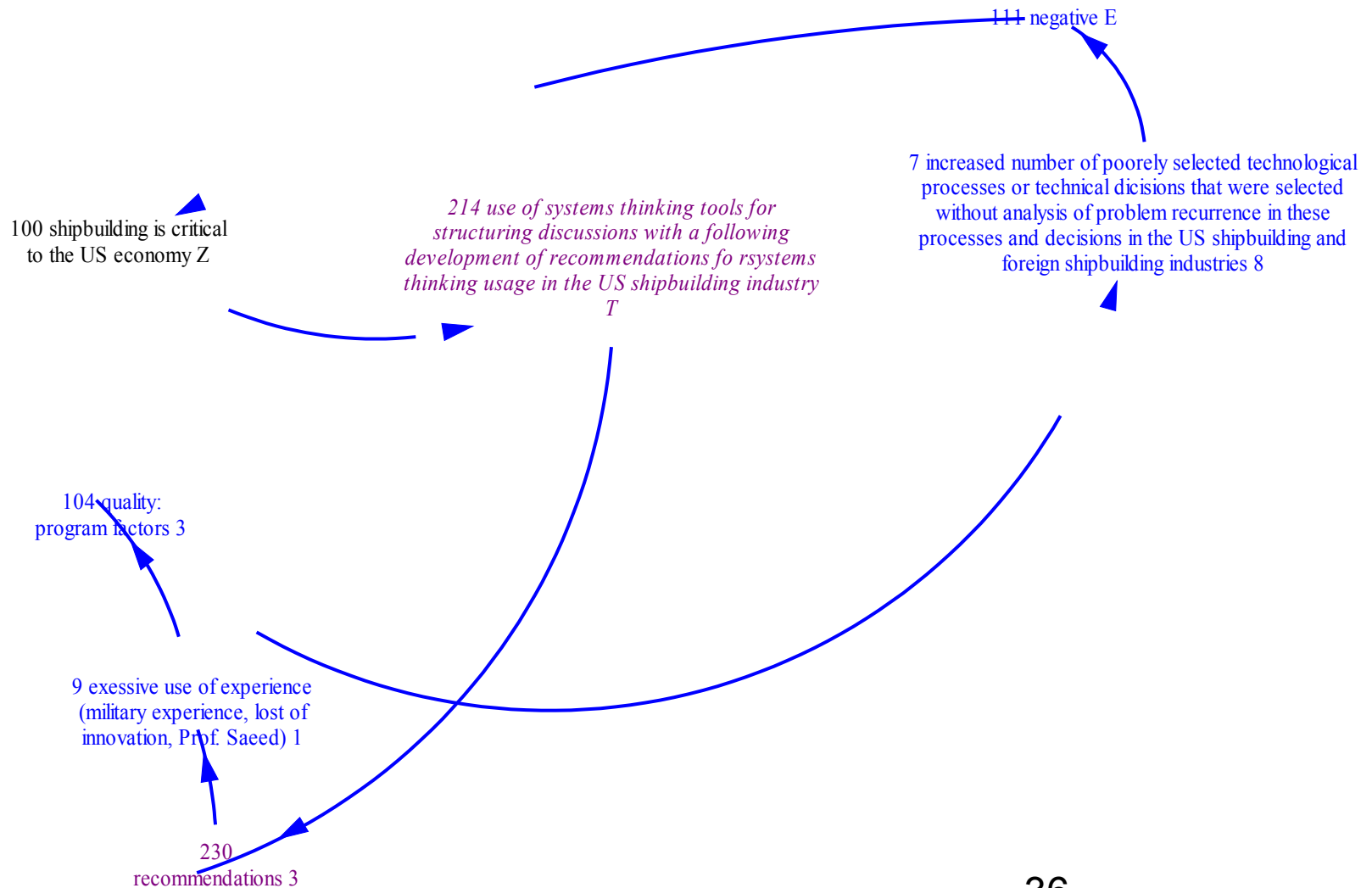
Quality Program vs. Quality Environment in the U.S. Shipbuilding Industry



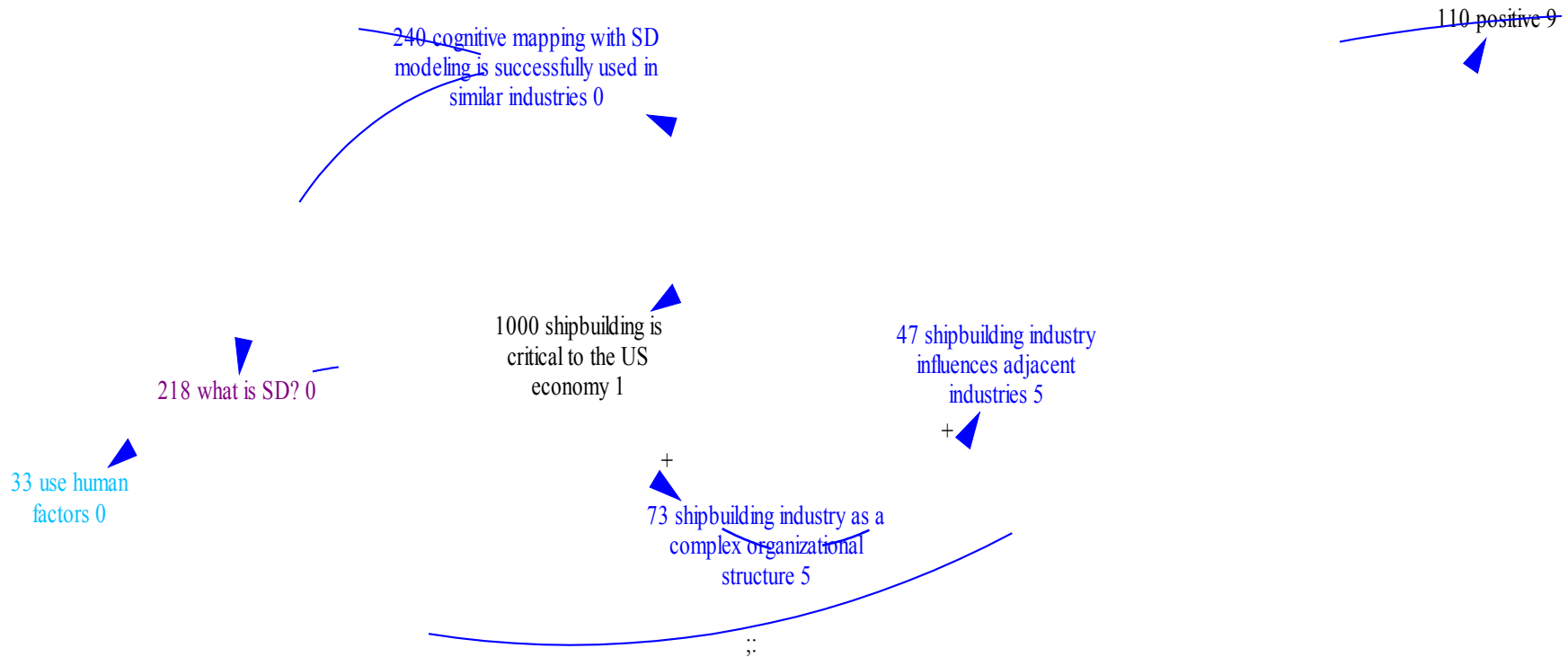
Human Factor and Quality Environment in the U.S. Shipbuilding Industry



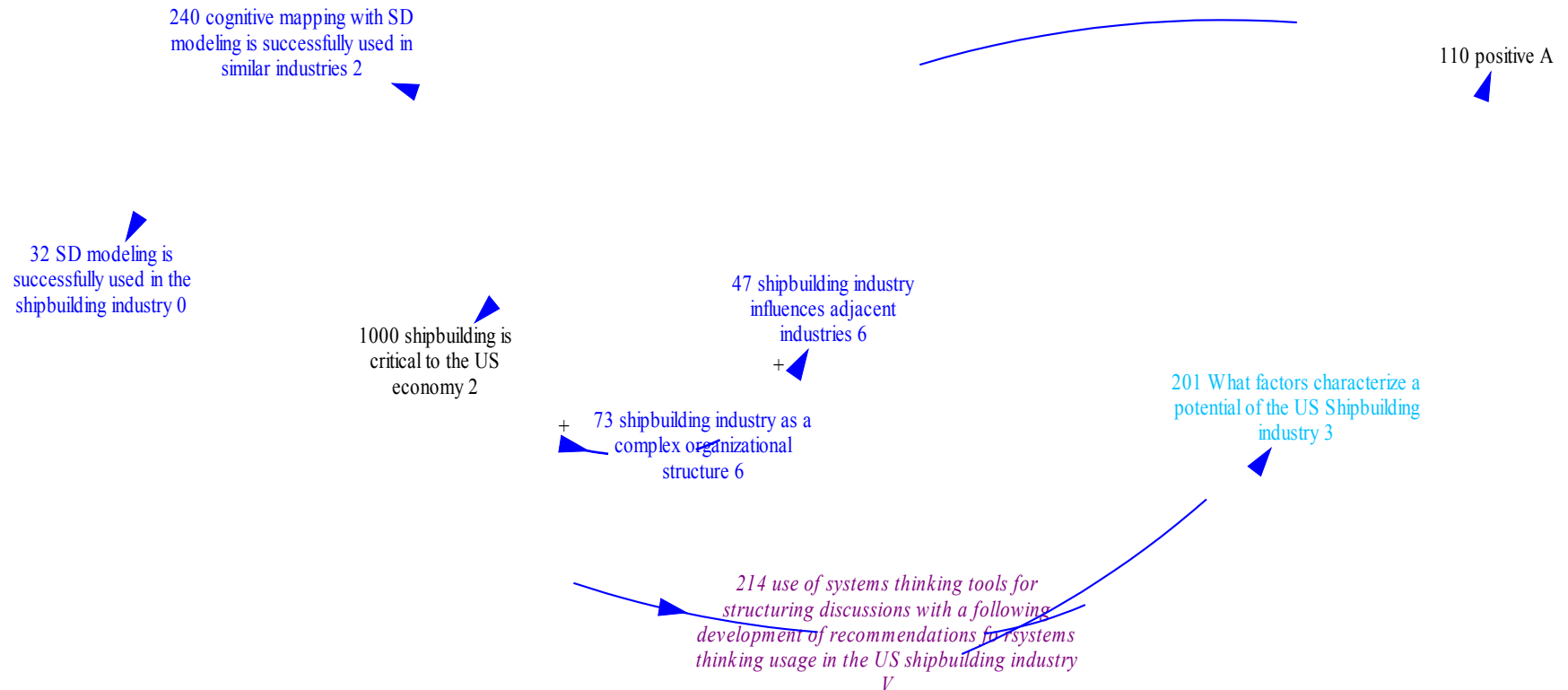
Deficiencies in the U.S. Shipbuilding Industry Addressed through Human Factor



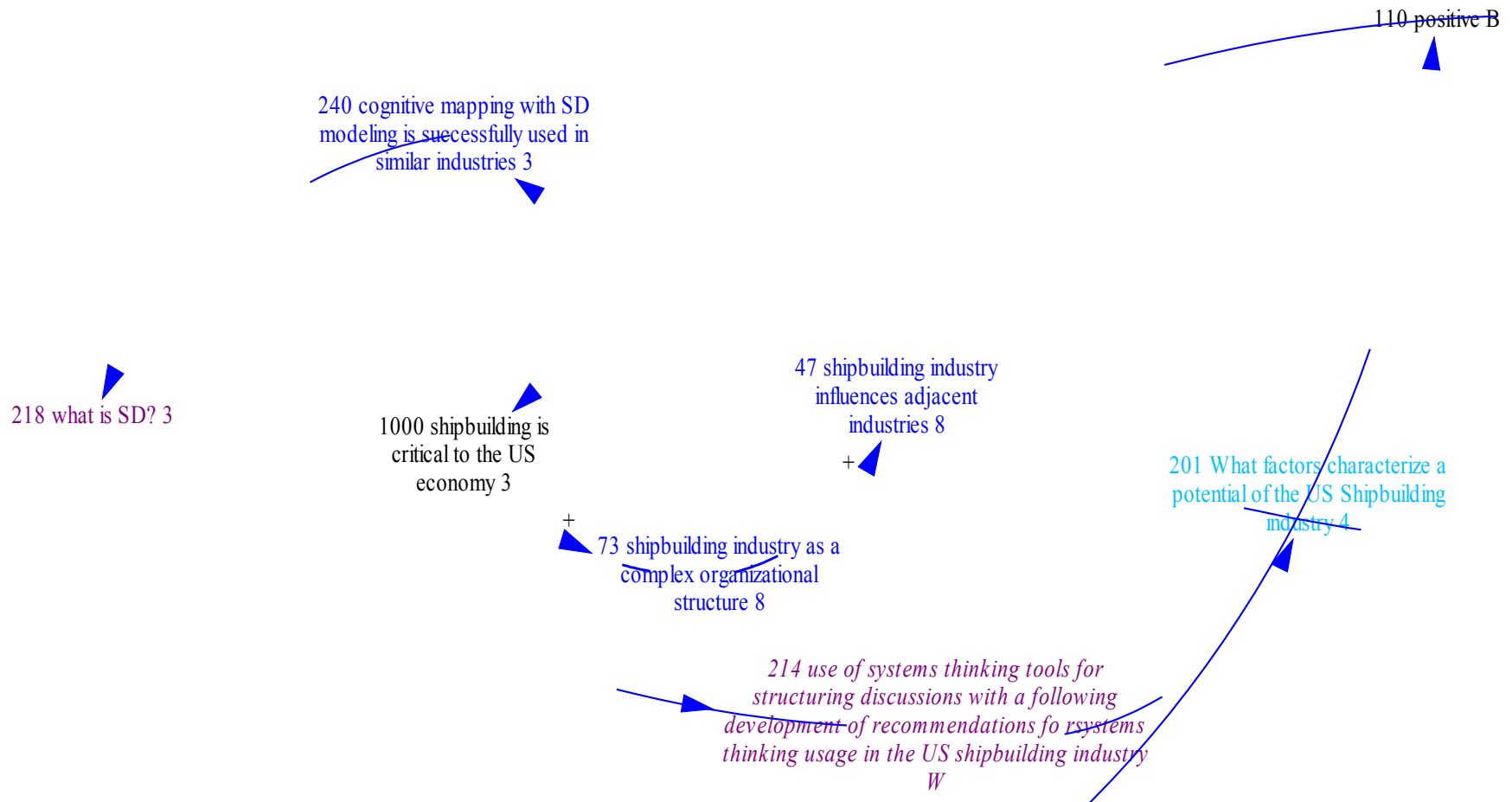
Employment of Systems Thinking Tools as a Foundation for U.S. Shipbuilding Industry Positive Potential



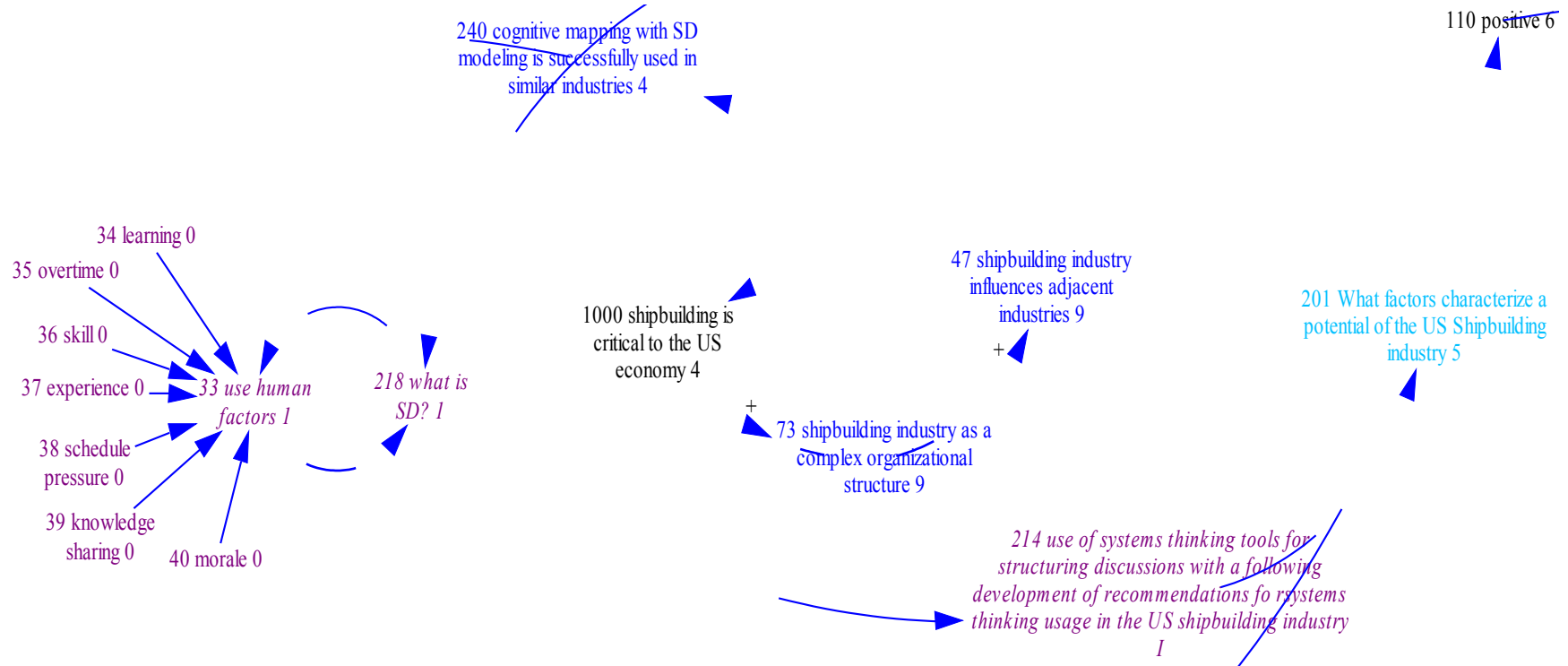
Employment of Systems Thinking Tools as Basis for Transformation to the Multiple Theories of Design in the U.S. Shipbuilding Industry



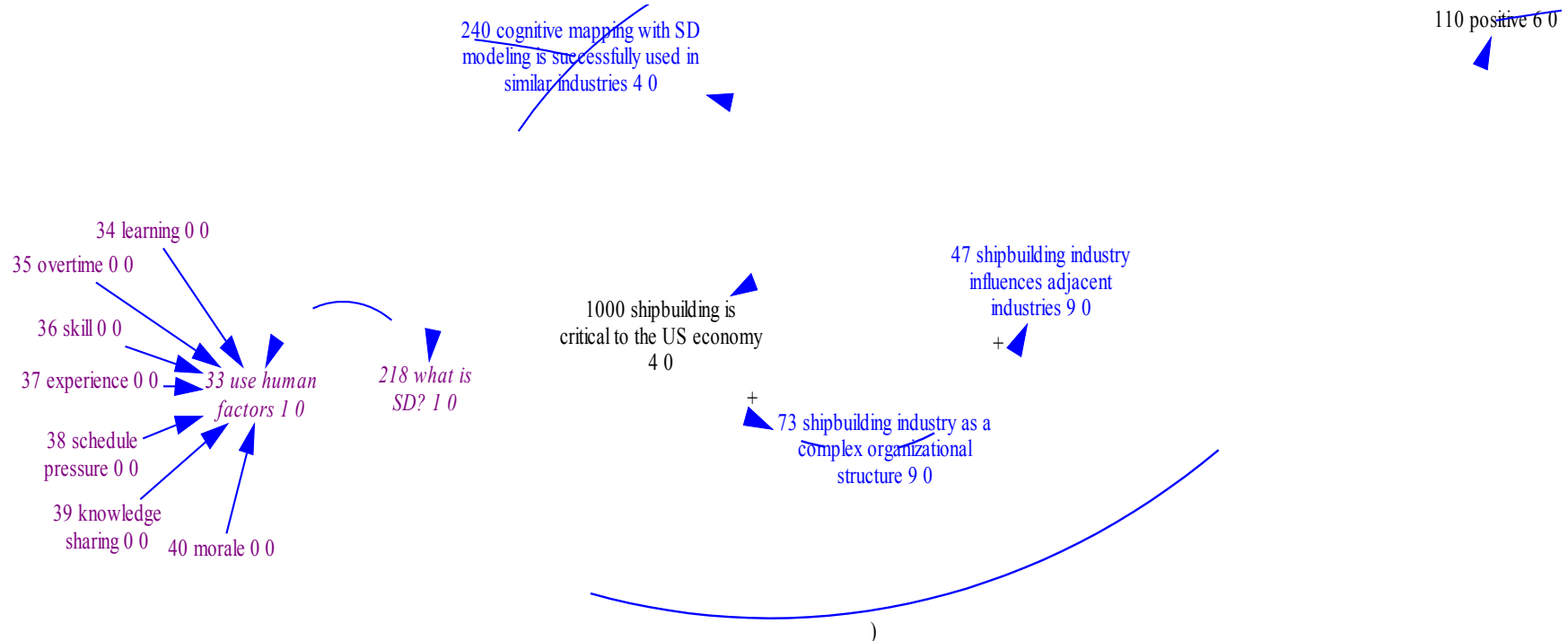
Defining a Scale of Potential through the use of Systems Thinking Tools in the U.S. Shipbuilding Industry



Human Factors as a Critical Part of Each Employee in the U.S. Shipbuilding Industry



Human Factors Influence on Formulating of U.S. Shipbuilding Potential



Back up: A Story

