The Russo-Ukrainian War: Insights from Systemism in a Pedagogical Setting

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Abstract
This article is intended to facilitate, via the systemist method, more effective communication about the Russo-Ukrainian War for individuals both familiar and unfamiliar with the subject. Diagrams based on systemism, a graphic approach toward the exchange of views with origins in the philosophy of inquiry, will demonstrate how analysis of the Russo-Ukraine War can be carried out in an accessible way for scholars and students alike. This capacity, in turn, should promote constructive dialogue about an intense subject. Work will be carried out in seven stages. Stage one provides an overview of the article. The second stage will focus on the meaning and value of systemism. Stage three will introduce the concept of a flipped classroom – an innovative approach toward learning that is compatible with brainstorming and holds implications beyond campus life. The fourth stage provides an example of a flipped classroom in International Relations, with student groups in January and February of 2022 producing systemist diagrams that depict events that eventually developed into the Russo-Ukrainian War. Section five shows how the diagrams became more sophisticated across iterations and combine to set an example for how area work can implement active learning. The sixth section focuses on how systemist graphics can contribute to New Area Studies in a more encompassing way. Seventh and last is a section that sums up what has been accomplished and provides an outlook to the future.

Acknowledgments
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MacEwan produced an essential diagram on short notice for this article and we thank her for superb work there.

Introduction

Unexpected and generally unwelcome around the world, the Russo-Ukraine War grinds on at this time of writing. Scholars and citizens alike are struggling to understand the origins, processes and the still unknown consequences of this conflict. Via the systemist method, this contribution to the special issue of *New Area Studies* is intended to facilitate more effective communication about the Russian invasion of the Ukraine. With origins in the philosophy of inquiry, systemism is a graphic approach toward the exchange of views.¹ Diagrams based on systemism will demonstrate how analysis of the Russo-Ukraine War can be carried out in a rigorous yet accessible way to help a broader audience understand the intricacies, complexity and interconnected nature of the conflict’s origin, development, and escalation. This capacity, in turn, should promote constructive dialogue about an intense subject. The above-noted systemist graphics originated in a classroom setting that coincided with the lead-up to the war. The resulting contribution to New Area Studies (NAS) in an overall sense is primarily with regard to *method* – specifically, a combination of systemist graphics with brainstorming. In sum, this article will use systemist graphics to analyze an essential matter of public policy as it unfolds in real time within Eastern Europe.

Work will be carried out in six additional stages. The second stage will focus on the meaning and value of systemism. Stage three will introduce the concept of a flipped classroom – an innovative approach toward learning that is compatible with brainstorming and holds implications beyond campus life. The fourth stage provides

¹ The classic exposition on systemism, with an emphasis on its potential for application in a wide range of disciplines, appears in Bunge (1996).
an example of a flipped classroom, with student groups producing a series of systemist diagrams that depict events eventually known as the Russo-Ukrainian War. Section five shows how the diagrams became more sophisticated across iterations and combine to set an example for how area work can implement active learning. The sixth section focuses on how systemist graphics can contribute to NAS in a more encompassing way. Seventh and last is a section that sums up what has been accomplished and provides an outlook to the future.

Systemism
Conveyance of theories in a way that facilitates and elevates the potential for comparison and criticism by means of a visual approach is the primary goal of systemism.² As such, implementation of systemism can help the discipline of International Relations (IR)³ (and other fields) grapple with longstanding challenges in research and teaching and promote both knowledge acquisition and retention. The systemist approach has its roots in the philosophy of inquiry, with its essence best conveyed by the most longstanding exponent, Bunge (1996): a commitment to building theories that are both comprehensive and logically consistent. In doing so, systemism renounces theorizing that occurs exclusively at the level of the system (holism) or its components (reductionism) alone. Systemism transcends both approaches by allowing for linkages operating at macro- and micro-levels as well as


³ As is conventional within the field, ‘International Relations’ refers to the academic discipline while ‘international relations’ concerns its subject matter.
interactions between and among them. Designation of a system on the basis of an expected level of content relative to its environment is an essential aspect as well.

Systemism thereby facilitates comparison of alternative visions regarding cause and effect through an emphasis on clear and comprehensive presentation. Consequently, systemism is both an approach and a method aimed at diagrammatic exposition of cause and effect to promote clarity and completeness that will benefit any discipline as a whole. As opposed to what one may believe at first glance, the idea of ‘more box and arrow diagrams’ is not banal but serves to promote intellectual rigor and lucidity. Proposed causal linkages are put forward explicitly through a diagram which makes the explanation more falsifiable than otherwise. Accordingly, the display of arguments through visualization allows for targeted criticism and more productive debate, which, in turn, could produce greater relevance to policy.

Table 1 illustrates the notation used in the process of creating systemist figures. Before any connections are introduced in a diagram, the starting point is the designation of a diagram’s system, recognizable visually as its ‘inner box’, and the corresponding environment being the diagram’s ‘outer box’, in which the system is embedded. For example, the discipline of ‘International Relations’ can serve as the system, with the ‘World Beyond’ as its environment. Within ‘International Relations’, the macro level (the upper part of the system with variables in all upper-case characters) would be the discipline as a whole, while the micro level (with variables in all lower-case characters found in the lower part of the system) consists of the activities of individual scholars.

Table 1

<table>
<thead>
<tr>
<th>Level</th>
<th>Character Case</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Macro</td>
<td>Upper case</td>
<td>Discipline as a whole</td>
</tr>
<tr>
<td>Micro</td>
<td>Lower case</td>
<td>Activities of individual scholars</td>
</tr>
</tbody>
</table>

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4 Designation of a system and its environment applies basic set theory. The system is a set and the environment is its complement.

5 For example, a study of Portugal likely would designate that state as the system and the rest of the world as its environment. Likewise, a focus on an academic discipline would make that field, such as NAS, the system, with the world beyond designated as its environment.
## Table 1: Systemist Notation

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Variable</td>
<td>The starting point of a series of relationships.</td>
</tr>
<tr>
<td>Generic Variable</td>
<td>A step in the process being depicted.</td>
</tr>
<tr>
<td>Divergent Variable</td>
<td>Multiple pathways are created from a single linkage.</td>
</tr>
<tr>
<td>Convergent Variable</td>
<td>A single pathway is created from multiple linkages.</td>
</tr>
<tr>
<td>Nodal Variable</td>
<td>Multiple pathways are created from multiple linkages.</td>
</tr>
<tr>
<td>Co-constitutive Variable</td>
<td>Two variables that are mutually contingent upon each other.</td>
</tr>
<tr>
<td>Terminal Variable</td>
<td>The end point of a series of relationships.</td>
</tr>
<tr>
<td>Connection Stated in Study</td>
<td>A linkage explicitly made by the author.</td>
</tr>
<tr>
<td>Connection Crossing Over</td>
<td>Two separate linkages that do not interact.</td>
</tr>
<tr>
<td>Connection Inferred from Study</td>
<td>A linkage inferred by the reader but is not made explicit by the author.</td>
</tr>
<tr>
<td>Interaction Effect</td>
<td>Two variables that depend upon the effect of each other.</td>
</tr>
</tbody>
</table>
Over 650 systemist diagrams now appear in the archive of the Visual International Relations Project (VIRP) (www.visualinternationalrelationsproject.com). These graphics cover a wide range of publications in terms of subject matter, theoretical perspective, and methods. The VIRP archive is intended to serve multiple purposes in scholarship and teaching. Note also that while IR has been the starting point for application of systemist graphics, work from any and all academic disciplines can be represented via this approach. And multiple items with a connection to NAS already appear in the VIRP archive.

One systemist method, to be applied in the present study, is “systematic synthesis” (James 2022a, 2023). This technique refers to comparative analysis, through use of graphics, of studies within a common area of research. The goal is to produce a diagram that sums up what is known on the basis of the studies included.

The Flipped Classroom: A Systematic Synthesis

While the operational form can vary in its specifics, a flipped classroom refers to one that reverses activities normally occurring inside and outside of the scheduled meeting times for a course. A basic version includes partially or even fully recorded lectures that students see prior to class. Within class time itself, discussions and various forms of active learning take place instead of a structured presentation from the instructor.

Based on eight studies of the flipped classroom, a systematic synthesis has been conducted. The result is Figure 1, which combines insights from the studies listed in note 7. Within the figure, the system is the ‘Experimental Flipped Classroom’ and the

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6 A detailed treatment of applications appears in Gansen and James (2022).
7 These studies include Jenkins (2015), Cobb (2016), Lambach, Kärrger and Goerres (2017), McNally et al. (2017), Bowers (2019), Cheng, Rizhaupt, and Antonenko (2019), Lambach and Kärrger (2021) and Betti, Biderbost and Domonte (2021). No claim is made about representativeness but this set of studies is deemed sufficient to identify basic properties of the flipped classroom.
environment therefore is the ‘World Beyond’. The macro and micro levels of this system, respectively, are the classroom as a whole and the activities of individuals within it.

Note the relatively streamlined appearance of this diagram, which is appropriate because it is intended as an introduction to the flipped classroom rather than a definitive summing up of the rapidly building literature on that subject. Table 2 conveys the number of variables in Figure 1, along with their distribution by type and
The variables include one initial, two generic, three divergent, and two terminal. There are six variables in the classroom as a system – three macro and three micro – plus two at the macro level of the ‘World Beyond’. The pathway begins and ends in the world beyond, with a point of termination at the macro level of the classroom as well. All basic connections that can appear in a systemist diagram – macro-macro, micro-micro, macro-micro, micro-macro, and back and forth between system and environment – are represented in Figure 1. Thus, the diagram may be regarded, from a systemist point of view, as complete in the most fundamental way.

Figure 1 begins with a connection from the ‘World Beyond’ to the system at the macro level: ‘RISING INTEREST IN ACTIVE LEARNING TECHNIQUES’ \(\rightarrow\) ‘FLIPPED CLASSROOM: (I) PREPARATORY PHASE – CONTENT COVERAGE OUTSIDE OF CLASS; (II) ATTENDANCE PHASE – DISCUSSION, DEBATE, AND GROUP ACTIVITIES; AND (III) FOLLOW-UP PHASE – EVALUATION’. As an initial variable, the former is designated with a green oval. The preceding connection is a result of increasing consciousness, in the digital era, of inadequacies embedded in the traditional classroom lecture format. As a result, student preparation involves reviewing content such as assigned readings and pre-recorded lectures, while activities like discussion or simulation take place during attendance in the class. Evaluation focuses on both objective performance indicators, such as grades obtained, and subjective elements related to student satisfaction with the course.

The pathway continues at the macro level of the classroom with ‘FLIPPED CLASSROOM: (I) PREPARATORY PHASE – CONTENT COVERAGE OUTSIDE OF CLASS; (II) ATTENDANCE PHASE – DISCUSSION, DEBATE, AND GROUP ACTIVITIES; AND (III) FOLLOW-UP PHASE – EVALUATION’ \(\rightarrow\) ‘SAMPLE

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8 Not too much should be read into use of the word ‘variable’ in this context and onward. It is a term of convenience. Systemist graphics, in the most inclusive sense, are intended to convey arguments and thus are not confined to representation of positivist expositions.
STRUCTURE FOR CLASS OVER TWO DAYS: (A) DAY 1 – DISCUSS READING AND LECTURES; AND (B) DAY 2 – GROUP WORK’. It also is possible to implement the flipped structure in a partial way on an in-class basis. For example, 1/3 of the time could be spent on discussion of readings, plus quizzes and activities that draw out key concepts, with the other 2/3 devoted to active learning such as brainstorming sessions.

Movement from the macro to the micro level occurs with ‘SAMPLE STRUCTURE FOR CLASS OVER TWO DAYS: (A) DAY 1 – DISCUSS READING AND LECTURES; AND (B) DAY 2 – GROUP WORK’ → ‘student-centered active learning: (a) autonomy; (b) multiple means of participation, action and expression, and engagement; and (c) deeper knowledge’. As a divergent variable, the latter appears as an orange diamond. The active learning format offers several advantages. For instance, students have more control over the process of learning and acquisition of knowledge is promoted through practical exercises. Class time thereby becomes more engaging, which, in turn, creates the potential for acquisition of deeper knowledge.

The pathway continues at the micro level with ‘student-centered active learning: (a) autonomy; (b) multiple means of participation, action and expression, and engagement; and (c) deeper knowledge’ → ‘performance indicators tend to be on par with traditional classroom’; and ‘response to flipped format: (i) overall positive – higher course rating, favorable reactions to use of technology and peer learning; and (ii) some categories of students are more favorable than others’. As a divergent variable (i.e., a variable that has one input and more than one output to open up multiple pathways), the latter appears as an orange diamond. At least so far, no difference emerges between traditional and flipped classrooms with regard to objective indicators of learning. It is interesting to note that students who are more collaborative than competitive in orientation tend to give a higher rating to the flipped classroom.
Two points of conclusion are reached through extension from the micro level to, respectively, the macro levels of the flipped classroom and world beyond: ‘performance indicators tend to be on par with traditional classroom’; ‘response to flipped format: (i) overall positive – higher course ratings, favorable reactions to use of technology and peer learning; and (ii) some categories of students are more favorable than others’ → ‘SEEK IMPROVED IMPLEMENTATION BASED ON EXPERIENCE WITH FLIPPED CLASSROOM’; and ‘USE ACTIVE LEARNING TECHNIQUES TO FACILITATE CONSTRUCTIVE DIALOGUE’. As terminal variables at the macro level of the system and in the environment, respectively, the latter two are designated with red octagons. Among the insights obtained from prior experience is that an incremental approach – starting with a partially flipped classroom – is a more promising pathway to success in teaching. Instructors also are more likely to succeed if attempting this with a class that they previously have taught. Given the wide range of potential reactions, the instructor should be prepared psychologically for at least some student resistance to the new format. With regard to the world beyond the flipped classroom, consider the possibility that implementation of systemist graphic analysis could also improve the quality of public discourse.

**Systemist International Relations in the Classroom**

IR 307, ‘Systemist International Relations’, took place in the Spring 2022 semester at the University of Southern California in Los Angeles. The class had an enrollment of 48 undergraduate students – mostly majors in IR. With just a small number of exceptions, the roster consisted of juniors and seniors (i.e., third- and fourth-year Bachelor’s students). Students experienced a flipped classroom that emerged under

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9 The co-authors of this article formed the team of instructors for IR 307.
pandemic conditions. Prior to each class, a preparatory phase focused on reading assignments and pre-recorded lectures. The reading assignments included *Systemist International Relations* (James 2023), to which students had access in its pre-publication format. The textbook conveyed the basics of the systemist approach, notably an example of diagram creation from the outset of engagement with a text through to inclusion in the VIRP archive.

During the attendance phase, students engaged in policy analysis via creation of systemist diagrams. The process would begin with a brainstorming session, led by the professor, which created an initial diagram on the whiteboard at the front of the classroom. A graphic would be posted soon after on the Blackboard site for students to examine prior to the next session. In the following class, students worked in sub-groups, each one suggesting improvements in the diagram. A rapporteur for each sub-group then summarized its ideas for the class as a whole. A revised version of the diagram, in turn, would be placed on Blackboard and reviewed by students before the next session. In the final class focusing on the issue, students once again would be placed in sub-groups that deliberately mixed together membership from the previous class. This took place in order to counteract any ‘tunnel vision’ or ego identification that might result from sub-groups with exactly the same membership on each round.

All sub-groups had the same goal: to seek improvement in the diagram from the previous round through *streamlining* of contents. A rapporteur from each sub-group once again would summarize ideas for the class – this time with an emphasis on how to make the diagram more succinct, if possible, while preserving its intended meaning. The revised version of the diagram, which once again brought together

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10 The flipped classroom experiment emerged in response to the pandemic conditions – a target of opportunity created by the ongoing challenge to public health and attendant efforts to adapt in ways that would preserve or possibly even enhance student learning.

11 Blackboard Learn is a web-based virtual learning environment and learning management system developed by Blackboard Inc.
insights from the respective sub-groups, then went back up on Blackboard. Issues over
the course of the semester ranged from cyber security and digitization to the long-
term effects of the Covid-19 pandemic.\textsuperscript{12} Topics emerged from informally soliciting
student interests on an ongoing basis.

With regard to the evaluation phase, two anonymous surveys took place during the
semester. Given the combination of a flipped classroom and systemism, multiple
consultations were initiated in order to prevent a potentially disastrous scenario in
which students felt ‘lost at sea’ because of too many new things at once. Appendix A
shows a summary, compiled by the instructors and discussed in class, of the last
survey conducted during the semester. Final evaluations reflected improvement upon
what appeared in the interim assessments.\textsuperscript{13}

**Systemist Graphics for the Russo-Ukrainian War**

One of the key focal areas of the class – due to the political situation at the beginning
of the semester – became the conflict between Russia and Ukraine. Over the course
of the Spring Term 2022 during which IR 307 was taught, the conflict escalated into
the Russo-Ukrainian War. Discussion of the intensifying conflict fully occupied three
classes in a pre-planned way, resulting in Figures 2-4.\textsuperscript{14} In each instance, the class
designated ‘Russia’ as the system, with the “International System’ as its environment.
Within the Russian system, government and society constitute the macro and micro
levels. Thus Figures 2-4 exhibit consistency in terms of basic structure, which
facilitates their comparison to each other.

\textsuperscript{12} The Russo-Ukraine conflict came first among issues that received systemist graphic-based attention
over the course of the semester. The process evolved for later issues; most notably, each sub-group
created its own diagram after the initial stage of brainstorming that included the class as a whole.
\textsuperscript{13} The contents of the final and formal evaluation of the course are available upon request and at the
discretion of the authors of this article.
\textsuperscript{14} The Russo-Ukrainian War continued to play a significant role in discussions throughout the semester,
notably in comparison with ongoing and historical cases of international strife around the world.
Table 2 profiles the characteristics of Figures 2-4 in terms of variable configurations.

The table conveys the number of variables, along with distribution across types and levels, for each figure. A review of the data in Table 2 will show how student-based analysis of the Russo-Ukraine case persisted in some ways and evolved in others over the course of several weeks.
Table 2: Properties of Systemist Figures

<table>
<thead>
<tr>
<th>Figure and Date of Inclusion on Blackboard (Figure 2-4) or Date of Creation (Figures 1, 5)</th>
<th>Total number of Variables (Macro, Micro and Environment)</th>
<th>Missing Types of Connection (M = Macro; m = micro; E = Environment)</th>
<th>Initial Variables</th>
<th>Generic Variables</th>
<th>Divergent Variables</th>
<th>Convergent Variables</th>
<th>Nodal Variables</th>
<th>Terminal Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 1, 21 June 2022</td>
<td>8 (5, 3, 2)</td>
<td>M → E; E → m</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Figure 2, 25 January 2022</td>
<td>12 (8, 4, 8)</td>
<td>M → m; E → m</td>
<td>3</td>
<td>7</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Figure 3, 28 January 2022</td>
<td>16 (12, 4, 12)</td>
<td>M → m; M → M; m → m; E → M E → m</td>
<td>3</td>
<td>8</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Figure 4, 2 February 2022</td>
<td>19 (15, 4, 15)</td>
<td>M → M; M → m; m → m; E → M E → m</td>
<td>3</td>
<td>10</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Figure 5, 5 October 2022</td>
<td>22 (15, 7, 14)</td>
<td>E → m</td>
<td>2</td>
<td>14</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>
Most obvious is the expansion from 12, through 16, to 19 in the number of variables. This increase across the set of diagrams responded to accumulating events, along with greater student reflection on what took place in real time.

Some aspects stay in place throughout the series of diagrams. The three initial variables – two at the level of Russian society and one in macro level of the international system – persist. The two societal variables focus on the low standard of living and a desire to return to the past glory of the Russian Empire and USSR. These stand out as pre-existing conditions that might enable an irredentist leader, such as Vladimir Putin, to mobilize support while simultaneously deflecting attention away from problems at home. Another point of origin appears in the international system, with the removal of restrictions by President Joe Biden on a key Russian pipeline – sanctions on a company building the controversial gas pipeline between Russia and Germany were waived.

Seven generic variables appear in all three diagrams. These steps toward the outcome appear at the governmental level within Russia and at both the micro and macro levels of the 'International System', indicated by their placement on the upper and lower tier of the environment. An example of each type will be offered here. The Russian government disseminated anti-Ukrainian policies and rhetoric along the pathway to war. At the micro level of the international system, subversive groups operated on behalf of Russian interests in Ukraine. Finally, enhanced unity in Western Europe stands out as a macro-level feature of the 'International System'.

One terminal variable is present in the ‘International System’ for each of the three figures: ‘escalation of Russo-Ukrainian conflict’. Even by late January 2022, students could see a progression toward much higher levels of conflict and the possibility of full-scale war.
One point of convergence, at the macro level of the international system, also is in place throughout the series of figures: ‘NATO firmness in face of Russian pressure on Ukraine’.

Three variables from the international system appear in Figures 3-4. The first is nodal: ‘bargaining and negotiation between Russia and the Western coalition’. Second is a generic variable: ‘anticipatory action from Western coalition against Russia (e.g., use of SWIFT)’. The third variable is terminal: ‘diplomatic solution to Russo-Ukrainian conflict’.

Finally, three variables in the ‘International System ‘are unique to Figure 4. Two are generic (i.e., ‘Russo-US conflict in the UNSC’ (United Nations Security Council); and ‘additional cyber and material support from US to Ukraine’) and one is divergent (i.e., ‘scheduled meeting of foreign ministers of Russia and US’).

As the semester went on and with the Russian invasion of parts of Ukraine starting on February 24, 2022, and the conflict escalating into war, students occasionally revisited the subject in their discussions. One member of the class, Natalia MacEwan, eventually produced a further refined diagram at the request of the authors for inclusion in this article. This additional figure serves at least two purposes. Most obviously, it enables updating of events to cover the period since the Russo-Ukrainian War got underway. The diagram also serves as an example of a ‘finished product’ from a student in IR 307 – created after experiencing the full curriculum of this introduction to the systemist approach.

With Figure 4 as the reference point, MacEwan created Figure 5 over the course of a few days in early October 2022. This intricate figure will be unpacked via subfigures, a standard approach within systemism that is intended to facilitate understanding of the contents (James 2023).

Figure 5.a is the first of the subfigures in which ‘Russia’ serves as system and the ‘International System’ as its environment. The macro and micro level of the system correspond, respectively, to government and society. All of these features coincide with the classroom versions in Figures 2-4. There are two green ovals (i.e., initial variables (see Table 1)), namely, ‘low standard of living among non-elite’ and ‘Putin describes the collapse of the USSR as the biggest geopolitical catastrophe and intends to return to Russia’s past glory’. These initial variables mark the starting points of two separate chains of linkages. Both of these variables are located at the micro level of the system as they describe processes that occur at the societal and individual level, respectively.
Figure 5.b shows connections from both initial variables that start a causal process. While ‘low standard of living among non-elite’ results in the generic variable ‘low levels of nationalism, small unmotivated military’, the other one first generates the generic variable ‘anti-Ukrainian policies and rhetoric’, also still located within Russia. In a second step, the latter generic variable connects to another generic variable, ‘subversive groups operating in Ukraine’, and that one to the third one ‘heightened fear in Ukraine of Russian takeover’. Both of these are still micro level processes but now placed in the ‘International System’ as they occur at the societal level of Ukraine.
From there, the next subfigure, Figure 5.c, introduces the first macro level variables. As a micro-macro level connection, the most recently mentioned generic variable connects to another generic variable ‘UKRAINE SEEKS PROTECTION AGAINST RUSSIA FROM US AND NATO’, which in turn leads into a second macro level generic variable, ‘US/NATO ADOPTS RHETORIC DESCRIBING PUTIN AS A DANGEROUS AND A SERIOUS MILITARY THREAT’, and then a third one ‘US/NATO POLICIES TO SUPPORT UKRAINE AND (1) INTEGRATE UKRAINE INTO EU; (2) IMPLEMENT WESTERN DEMOCRACY; AND (3) ADD UKRAINE TO NATO’. All of these are macro level variables in the environment as they capture processes outside of Russia that occur in the aggregate. From the last generic variable ensues a macro-macro level connection to the generic variable ‘UKRAINE JOINING NATO POSES EXISTENTIAL THREAT TO RUSSIA’. It is placed in the system because it describes the impact of the developments the Russian government.
From Figure 5.d, it becomes obvious that the so-far linear development of the conflict now reached a new and much more elevated level of escalation that also is reflected in the increased visual complexity of the diagram in comparison to earlier iterations. The previous generic variable, depicting a step in the process, connects to the first divergent variable of the diagram, ‘RUSSIA DEPLOYS TROOPS BUILDING UP MILITARY ALONG UKRAINE’S BORDER, DEMANDS UKRAINE NOT JOIN NATO’. In its function as a divergent variable, it appears as an orange diamond and creates multiple pathways from a single linkage, visually illustrating the larger range of complications. The first one is another macro-macro connection up to the generic variable ‘US/NATO REFUSE PUTIN’S DEMANDS, PROVIDE KYIV WITH DEFENSE WEAPONS AND ECONOMIC SUPPORT’ in the environment that then leads into another generic variable ‘RUSSIA INVADES UKRAINE ON FEBRUARY 24, 2022’. The second pathway created from the orange diamond is a macro-micro level one which, together with a connection from the generic variable ‘low levels of nationalism, small unmotivated military’, merges into the convergent variable ‘Russian force posture is
poor due to (i) lack of supplies; (ii) little preparation; (iii) sparse communication; (iv) troops’ poor living conditions; (v) low morale; and (vi) no faith in Russian leaders’.

As a blue parallelogram, only a single pathway ensues from the latter variable. Just like the single pathway from the most recently introduced generic variable, it leads into the nodal variable ‘RUSSIA IS ILL-PREPARED AND FORCED TO PURSUE A LIMITED AIMS MILITARY STRATEGY’ in Figure 5.e. This purple hexagon is placed at the macro level of the system as it describes an aggregate process that affects Russia as a whole. Two pathways emerge from this variable, each of which leads into a divergent variable at the macro level of the international system. The two orange diamonds ‘IMPACT ON UKRAINE IS DEVASTATING: 20% OF TERRITORY CONQUERED BY RUSSIA AND MANY CITIES ARE DESTROYED’ and ‘WESTERN ALLIES EMPLOY COMPREHENSIVE SANCTIONS TO WEAKEN RUSSIAN POWER’ describe the consequences for, and events occurring in, the ‘International System’ resulting from developments in Russia. One of the biggest aims of Western retaliation
is to cut Russia off from state-of-the-art technologies over the long term, particularly in target markets such as the automobile industry and with regard to the military.¹⁵

The sixth and final of the subfigures, Figure 5.f, first sees two connections resulting from each of the two divergent variables. The first one produces the two generic variables ‘GLOBAL FOOD SHORTAGE: UKRAINE IS UNABLE TO PRODUCE AND EXPORT CROPS’ and ‘GLOBAL HUMANITARIAN CRISIS: MILLIONS OF UKRAINIANS ARE DISPLACED, THOUSANDS KILLED, AND MAJORITY LEFT UNEMPLOYED’. Pathways from the other orange diamond lead into two more generic variables: ‘GLOBAL COST OF LIVING CRISIS: SANCTIONS HAMPERED CRITICAL TRADE ROUTE OPTIONS EXACERBATING THE COST OF LIVING’ and ‘ENERGY PRICE SURGE: EMBARGOS ON RUSSIAN OIL/GAS LEADS TO A SHORTAGE AND

¹⁵ For more details and in-depth analysis of the sanctions, see e.g., Bidder and Becker 2022. https://www.spiegel.de/international/world/the-ukraine-war-russia-is-becoming-poorer-and-morebackward-a-8ba48998-bd7b-4167-a892-4b00b09e7743 [11/04/2022]
ULTIMATELY PRICE SURGE’. Each of these four generic variables connects to the final variable of the diagram – the red octagon ‘GLOBALIZED WORLD FACES FAR REACHING CONSEQUENCES AS A RESULT OF THE ONGOING RUSSIAN AND UKRAINIAN CONFLICT’ that concludes the causal chain of linkages.

Return to the summary from Table 2 for a comparison that now includes Figure 5. Once again, the overall number of variables has increased – up to 22. Note that expansion from Figures 4 to 5 is concentrated into the Russian system: from a total of four variables (two macro and two micro) to eight variables (three macro and five micro). While the contents of the international system have changed significantly, as described below, the sheer number of variables and their distribution – two micro ones in each figure and a shift in macro variables from 13 to 12 – are approximately the same in each diagram. Several specific features also stand out with regard to distribution of variables by type in a comparative analysis of Figures 4 and 5.
First, only four variables persist in exactly the same form and all are in the generic category. One is at the level of Russian society: ‘low standard of living among non-elite’. Two variables are at the micro level of the ‘International System’ – ‘subversive groups operating in Ukraine’ and ‘heightened fear in Ukraine of Russian takeover’. The other variable – ‘Ukraine seeks protection against Russia from NATO and US’ – is at the macro level of the environment.

Second, two variables that had been at the governmental (i.e., macro) level for Russia in Figure 4 are included in Figure 5, but have somewhat different content and, in one instance, a new location. ‘RUSSIAN PERCEPTION OF US/NATO LACK OF COMMITMENT TO UKRAINE’ from Figure 4 takes a more intense form in Figure 5: ‘UKRAINE JOINING NATO POSES EXISTENTIAL THREAT TO RUSSIA’. In Figure 4, ‘ANTI-UKRAINIAN POLICIES AND THREATS’ had appeared at the macro level of Russia; however, this variable has migrated to the micro level in Figure 5. This shift from government to society signals greater pervasiveness – not just leaders and elites, but people in general, expressed hostility to Ukraine. Government control over the media is a likely explanation; negative messaging about Ukraine over time might be expected to have a virtually uniform impact under such conditions. In addition, one variable at the level of society is more elaborate from one diagram to the next: ‘desire to return to past glory of Russian Empire and USSR’ (Figure 4) and ‘Putin describes the collapse of the USSR as the biggest political catastrophe and intends to return to Russia’s past glory’ (Figure 5).

Third, note that 12 variables from Figure 4 are left out of Figure 5. The latter diagram streamlines some parts of the story in order to create space to add others that became relevant with the passing of time. In the ‘International System’, a point of origin – ‘PRESIDENT BIDEN REMOVES RESTRICTIONS ON RUSSIAN PIPELINE’ – is eliminated. This deleted action effectively merges into the latent background conditions for war. The visual method can thus also help students develop their skills
to prioritize efficiently as with increasing conflict escalation; ongoing developments become progressively more important and replace others so as not to clutter the visualization and take away from its lucidity.

Five generic variables, in the form of white rectangles in the ‘International System’ from the previous figure, no longer appear; one example is ‘ENHANCED UNITY IN WESTERN EUROPE’. One convergent, one divergent, and one nodal variable from Figure 4 also are not kept on in Figure 5 – for example, the blue parallelogram ‘NATO FIRMNESS IN FACE OF RUSSIAN PRESSURE ON UKRAINE’. Finally, three terminal variables from Figure 4 are left out of Figure 5; one example is ‘DIPLOMATIC SOLUTION TO RUSSO-UKRAINE CONFLICT’. Once more, most variables no longer appear because their relative importance to the overall conflict has declined in light of the rapid escalation and increasing complexity of the chain of events. However, the explanation for the disappearance of the terminal variables, of course, is that the actual progression events turned out to take the course of conflicted escalation into war as one suggested option.

Fourth, Figure 5 includes 14 fully new variables. These appear at the governmental and societal levels of Russia and at the macro level of the international system.

Two of the new variables – respectively, generic and convergent – are at the level of Russian society: ‘low levels of nationalism, small unmotivated military’; and ‘Russian force posture is poor due to (i) lack of supplies; (ii) little preparation; (iii) sparse communication; (iv) troops’ poor living conditions; (v) low morale; and (vi) no faith in Russian leaders’. A new divergent variable appears at the level of the Russian government: ‘RUSSIA DEPLOYS TROOPS BUILDING UP MILITARY ALONG UKRAINE’S BORDER, DEMANDS UKRAINE NOT JOIN NATO’. In addition, there is a new nodal variable at the government level: ‘RUSSIA IS ILL-PREPARED AND FORCED TO PURSUE A LIMITED AIMS MILITARY STRATEGY’.
Eight of the new variables take the generic form (i.e., plain boxes) in the international system. These are introduced most easily in two subsets – four that come before a pair of divergent variables and four that come after. The first set includes the following: (A) ‘US/NATO ADOPTS RHETORIC DESCRIBING PUTIN AS DANGEROUS AND A SERIOUS MILITARY THREAT’; (B) ‘US/NATO ENACTS POLICIES TO SUPPORT UKRAINE AND (1) INTEGRATE NATO INTO EU; (2) IMPLEMENT WESTERN DEMOCRACY; AND (3) ADD UKRAINE TO NATO’; (C) ‘US/NATO REFUSE PUTIN’S DEMANDS, PROVIDE KYIV WITH DEFENSE WEAPONS AND ECONOMIC SUPPORT’; and (D) ‘RUSSIA INVADES UKRAINE ON FEBRUARY 24, 2022’. The second set of variables is as follows: (I) ‘GLOBAL FOOD SHORTAGE: UKRAINE IS UNABLE TO PRODUCE AND EXPORT CROPS’; (II) ‘GLOBAL HUMANITARIAN CRISIS: MILLIONS OF UKRAINIANS ARE DISPLACED, THOUSANDS KILLED, AND MAJORITY LEFT UNEMPLOYED’; (III) ‘GLOBAL COST OF LIVING CRISIS: SANCTIONS HAMPERED CRITICAL TRADE ROUTE OPTIONS EXACERBATING THE COST OF LIVING’; and (IV) ‘ENERGY PRICES SURGE: EMBARGOES ON RUSSIAN OIL/GAS LEADS TO A SHORTAGE AND ULTIMATELY PRICE SURGE’.

Between the two preceding sets of generic variables are two divergent variables: ‘IMPACT ON UKRAINE IS DEVASTATING: 20% OF TERRITORY CONQUERED BY RUSSIA AND MANY CITIES ARE DESTROYED’; and ‘WESTERN ALLIES EMPLOY COMPREHENSIVE SANCTIONS TO WEAKEN RUSSIAN POWER’.

Finally, there is a new point of termination: ‘GLOBALIZED WORLD FACES FAR REACHING CONSEQUENCES AS A RESULT OF THE ONGOING RUSSIAN AND UKRAINIAN CONFLICT’.

One significant form of overall progress becomes obvious when Figures 4 and 5 are compared to each other, namely, theoretical completeness. Missing from Figure 4 are
multiple basic types of connection within Russia – micro-micro is one example. All of these connections, with one exception, appear in Figure 5. Note also the greater range of implications explored from one diagram to the next. A global emphasis is apparent from the last four generic variables and the terminal variable. The diagram thus visually emphasizes the consequences of the elevated level of globalization as the sentiments of one leader and the issues at the national level quickly escalated into an international conflict which, due to cross-national alliances and economic interconnectedness, had tangible consequences for many countries and their citizens around the world.

**Systemist Contributions to New Area Studies**

How does the pedagogical approach based on systemism contribute to NAS in an overall sense? The work carried out here answers, to some degree, significant questions about NAS raised by Asif (2020). Asif (2020) draws attention to the bifurcated nature of NAS at this point in its development. On the one hand, NAS emerged in Europe and the US alongside advanced methods such as data science. On the other hand, scholars in the post-colonized world may lack resources to carry out some expensive forms of research or those requiring sophisticated equipment. Systemism, which can be implemented with minimal infrastructure – a working computer and free software via [www.diagrams.net](http://www.diagrams.net) – is a method with significant potential to help level the playing field. Systemism can assist NAS in meeting the challenge posed by engagements between and among numerous disciplines that entail vastly different methodologies and approaches (James 2020). With its emphasis on depicting arguments in graphic form, systemism can facilitate integration of information into knowledge across the expanding range of disciplines connected with NAS.

Consider the progression from Figures 2-4 to 5 in the overall context of NAS as well. It becomes obvious at first glance that this figure is much more detailed than the
initial Figures 2-4, which has a two-fold benefit: On the one hand, the elements of the conflict, its context and build-up are much more comprehensible, which shows that a more in-depth engagement with the subject matter occurred to produce this diagram and is crucial to the retention of the central aspects of escalation. On the other hand, Figures 2-4 show many of the advantages of systemism as students were quickly able to grasp the method and succeeded in creating more sophisticated diagrams (with Figure 2 having been their first attempt at creating a systemist graphic) in a very short amount of time. Many students expressed later on that the process of creating a diagram, combined with the end product when it became available for review, allowed them to engage with the materials on a much more profound level. Moreover, in-class discussions helped students to think critically about issues in ways that likely would not have happened otherwise.

Synergy, it seems, may exist between the experimental flipped classroom and implementation of brainstorming based upon the systemist graphic approach. The former represents a change in structure, while the latter is an innovation in process. With a combination of these shifts in structure and process, it is submitted here, arises an ideal pedagogical setting for New Area Studies. Along those lines, consider the vast range of subject matter and terminology encompassed within even just a few of the disciplines connected to NAS (Hodgett and James 2018). Systemist graphics are easily intelligible, and it is possible to achieve a basic ability to create them in the matter of a few hours.

Systemist graphics in a brainstorming context could have value for NAS well beyond the example of the Russo-Ukrainian War. Research questions about any subject within the domain of NAS would be amenable to such an approach.

It also would be interesting to deploy systemism as a means toward bridging the most persistent gap in NAS: the chasm between humanities and social sciences. Take, for
example, Canadian Studies. James (2022b) used systemist graphics to pursue an unlikely dialogue: between the career of the Nobel Prize winner for Literature, Alice Munro, and the theory of institutional imbalance from the study of constitutional politics. When brought into contact, the diagrammatic expositions revealed points of commonality (e.g., neither having a lone terminal variable) and suggested new directions for research (e.g., the role of the Writers’ Union of Canada in constitutional politics) (James 2022b: 292-293).

One point of caution should be noted with regard to application of the systemist technique. This concerns the danger of “hyperactive optical clutter”, a term created by Tufte (2006) to describe when a diagram is doing more harm than good. While a systemist diagram can offer value added when it facilitates comprehension of text and communication in words, internal complexity must be kept under control. In that sense, imagine a systemist diagram with a hundred or more variables and many connections between and among them – more than anything else, a likely liability rather than an asset to understanding.

**Summing Up and Moving Forward**
This study has focused on the Russo-Ukrainian War from a pedagogical point of view that emphasizes the value of a systemist graphic approach. The structure of the experimental flipped classroom and systemism as an active learning process have been brought together in an example: IR 307, Systemist International Relations, a recently taught IR course at the University of Southern California. Systemist-based brainstorming occupied significant class time in IR 307, with a priority on student-led creation of diagrams that depicted the Russo-Ukrainian conflict from its origins onward. Other issues received the same treatment over the course of the semester and promoted student learning. It is hoped that the example set by this course – a combination of the systemist graphic-based method and creative group interactions on policy issues – will stimulate further pedagogical applications as NAS moves
forward. In doing so, the subject matter could become more accessible to individuals both familiar and yet to be acquainted with the field of NAS. This should foster more productive debate and a heightened relevance of discussions to policy and application in practice.
References


Appendix A

Commentaries from IR 307

10 March 2022

Thank you once again for your constructive reactions regarding the class! This round has helped me very much and I'll respond in class on March 22 and also take some actions ahead of time that build on various points below.

The observations are listed in each set, positive and negative, in descending order of the frequency with which they were mentioned in the survey.

1. Positive
   a. discussions
   b. overall positive reaction
   c. interesting reading
   d. learning student opinions
   e. encouragement of critical thinking and creative thought; links to current events; effective lectures; study guide for midterm

2. Negative
   f. give more lectures
   g. help with uncertainty about grading and expectations
   h. summarize reading material
   i. what is purpose of class?; want more feedback on discussions; need more direction for discussions; why do diagrams quote directly from chapters?; discuss content of reading more