RESEARCH IN THE HISTORY OF ECONOMIC THOUGHT AND METHODOLOGY

Including a Symposium on Mary Morgan: Curiosity, Imagination, and Surprise

RESEARCH IN THE HISTORY OF ECONOMIC THOUGHT AND METHODOLOGY

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Including a Symposium on Mary Morgan: Curiosity, Imagination, and Surprise

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VOLUME INTRODUCTION

In our second 2018 volume of *Research in the History of Economic Thought and Methodology*, we feature a symposium on Mary Morgan's career as historian and philosopher of economics. Guest edited by Marcel Boumans and Hsiang-Ke Chao, the symposium includes contributions from several well-known scholars who have been uniquely influenced by Professor Morgan's work, either as former students, colleagues, or as mentees. In addition to contributions from the guest editors, the array of participants features several renowned historians of economic thought, including Harro Maas, Tiago Mata, Andrej Svorenčík, and Gerardo Serra, among others. Professor Morgan offers a reflection essay.

The volume also includes an essay by Charles McCann, Jr. and Vibha Kapuria-Foreman, another contribution to their coauthored project on Robert Franklin Hoxie. McCann and Kapuria-Foreman's *Robert Franklin Hoxie: The Contributions of a Neglected Chicago Economist* appeared two years ago in *RHETM* Volume 34B. We are delighted to present their latest work on Hoxie's inquiries into trade union politics and the American socialist party.

Luca Fiorito
Scott Scheall
Carlos Eduardo Suprinyak
Editors

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PART I
INCLUDING A SYMPOSIUM ON MARY MORGAN: CURIOSITY, IMAGINATION, AND SURPRISE

Guest edited by Marcel Boumans and Hsiang-Ke Chao

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INTRODUCTION TO THE SYMPOSIUM "CURIOSITY, IMAGINATION, AND SURPRISE"

Marcel Boumans

ABSTRACT

This introduction to the Symposium "Curiosity, Imagination, and Surprise" discusses some of the characteristics of Mary Morgan's approach to study science, which she labels as "naturalized philosophy of science." One of these characteristics is the usage of a carefully chosen vocabulary. These concepts are usually unconventional and open-ended with the aim of illuminating the practice under study. Another characteristic of her approach is that it is curiosity-driven, which becomes clear by the kind of typical questions she asks. A third characteristic is that her approach is case-study based, with its typical features, such as the investigation of a bounded "real-life" whole, its attitude of open-endedness, the usage of multiple research methods and its complex, often-narrated outcome.

Keywords: Case-study approach; concepts; curiosity; imagination; naturalized philosophy of science; surprise

"Science is messy" is the opening statement of Mary Morgan's[1] most recent monograph *The World in the Model* (2012a). It is precisely this feature of science which makes the study of science so exciting. But how to do this without "paper [ing] over the knots and holes in scientific life" or "avoid[ing] the many awkward rubs of detail" (p. xv)? Offering a "continuous historical narrative" or a "fortified philosophy" (p. xv) would be a deceptive simplification of what science is and hence would lead to an underappreciation of the solutions scientists have come up with to deal with this messiness. There are no "bottom-lines."

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How do we study science without falling into these traps of too much smoothing and without confusing appreciation with uncritical appraisal? In a discussion we had many years ago about this issue, Mary Morgan suggested that the study of science should aim at *understanding*. The goals should not be normative, nor should they take the more neutral position of being descriptive. Both, in fact, are outsiders' positions. The aim should be to stay as close to practice and its practitioners as possible by attempting to see science practice from the perspective of the practitioners as far as possible. Understanding means to see the problems as the practitioners face them and try to comprehend the choices they make to solve them. The aim is a combined philosophy of science-in-practice with philosophy-of-science in practice, or as she would put it, a "naturalized philosophy of science" (Morgan, 2012a, p. xv).[2]

Highly relevant for such a "naturalized philosophy of science," to do justice to science practice without the aim of justification, is a carefully chosen vocabulary. The understanding of a certain research practice or reasoning style is highly sensitive to not only the choice of concepts used for that purpose, but also to the way these concepts are used. They can restrict or even simplify the analysis too much, particularly when they themselves are restricted by a definition. Since Mary Morgan's first project on models when she had just started her appointment as Professor in History and Methodology of Economics in Amsterdam, in the early 1990s, up to her latest project on narratives, it has always struck me that the main struggle was finding the most appropriate concepts that would help in gaining this kind of understanding. These concepts could only do so when they have some kind of open-endedness.

The main tool of philosophy is language, but it is a problematic tool. Clarification can come from clear concepts, often meant in the sense of being clearly defined. However, when it comes to this kind of analysis, definitions can limit the understanding of a practice unnecessarily. One reason is that practitioners often use concepts in a much looser way than philosophers have defined them, and even if they accepted the philosophers' definitions, these more strictly defined concepts do not easily translate to another practice. Therefore, I assume, you will not find any commitment to a definition in Mary Morgan's work, not even for the subject she became most well-known for: models. In both her books on models, *Models as Mediators* (with Morgan & Morrison, 1999) and *The World in the Model* (2012), Mary Morgan discusses the ways in which models *function* in science and the *qualities* that make them useful in science. This is not an easy position in a field where conceptual analysis usually means that one should provide clear definitions.

Even though concepts should not be closed down by a definition and should instead remain open-ended, the analysis of each practice requires a working vocabulary to gain the desired insights. In many, if not all, of Mary Morgan's projects it involved the development of a specific vocabulary appropriate for that project. I was lucky to witness the first phases of several of her projects and each time found the struggle among the project's participants to find a common terminology which could be used to share findings and insights fascinating.

Although the topics could be quite conventional, such as models, measurements and facts, to study them an unconventional vocabulary was usually needed.

A nice illustration of this search for vocabulary can be found in the final report of "How Well Do Facts Travel?" in which Mary Morgan gives the following account of the findings and conclusions of this project:

> Our main conceptual challenge was to explicate what it means for facts, understood as "pieces of reliable knowledge", to travel well. We focussed on two senses: i) facts travel well when they travel with sufficient "integrity" to be acted upon as facts; and ii) facts travel well when their travels prove "fruitful", as evidenced by their being used again in other times, places, and domains, or for other purposes. Such travels depend on various kinds of "good company": labels, packages (such as cases), vehicles (such as the internet or scientific models) and chaperones (such as the name of a famous producing scientist). More surprisingly, our research found evidence of the importance of "character": those facts that travel well exhibit particular features that get them noticed in the first place or that are developed during their process of travel. Though conventional wisdom might suggest that facts are, like gossip, likely to be corrupted in their re-use, our research suggested the opposite, namely, that with the appropriate good company and character, facts will often travel remarkably well to serve as foundational objects beyond the place and community of their original field of production. (Morgan, 2010, p. 1)

To my knowledge, the first example of such a concept is "satisfactoriness" in one of her earliest publications (Morgan, 1988) which appeared in a volume on Popperian methodology. In a volume addressed to the role of Popper's falsificationism in economics, that is to say the binary methodology of either accepting a theory or rejecting it, Mary Morgan, after having studied several econometric practices, introduced this new term to the methodological discussion.

> [My] viewpoint suggests that although econometricians have described their activity as that of testing economic theories, this testing should not be understood in quite the same terms as methodological discussions about falsification and verification. In my view, econometricians have been primarily concerned with finding satisfactory empirical models, not with trying to prove fundamental theories true or untrue. (Morgan, 1988, p. 199)

Testing should be understood as "quality control," "a sort of qualitative assessment with questions centered on the issue: 'How well does the empirical model work with reference to the data?'" (p. 199).

Although Mary Morgan does not aim at a "philosophy of all," rereading this early publication shows some features that characterize or better look rather familiar in most of her works over many years: firstly, the kind of research questions she finds most interesting, such as the "how well" questions,[3] secondly, her focus on practice, that is, not on theories, but in this case, the modeling attempts of econometricians, and thirdly, the comparison with other kinds of practice, often outside science. In this study, it is production, but in other works, one can find references to practices such as art, and, finally, closely related to the previous feature, the introduction of unconventional terms to better account for the practice in question.

Many unconventional terms follow. To give an impression, I will mention the most prominent and therefore – I assume – familiar concepts (in brackets are the related projects for which she introduced these terms):

- autonomy (~model);
- wholes/parts (~measurement and observations);
- travel (~facts);
- confounding (~experiments);
- infirming (~case studies); and
- colligation (~narratives).

When Mary Morgan and I discussed what the overall theme or themes could be for this symposium based on the conference about her work and ideas that would aptly characterize her interests and topics under discussion, she suggested the following three terms: *curiosity*, *imagination* and *surprise*. These terms describe the scientists she has studied doing their fascinating empirical research, and who she – I guess – admires. They are driven by curiosity, have imagination, and are always prepared to be surprised. Though she did not mean to imply this, these qualities can also clearly be seen to describe her research aims and characterize her attitude as empirical scientist with the case-study approach as her main methodology.

Although, the case-study approach is a well-known and broadly used methodology in the social sciences, it is rarely applied in philosophy. One of the most important contributions of Mary Morgan's work is to show the fruitfulness of this epistemic genre for the philosophical analysis of science, not as an exemplary or illustrative narrative but as a respectable and valuable mode of philosophical reasoning. Her (2012) article explains what this methodology entails by listing the following characteristics:

- A case study investigates a bounded whole object of analysis.
- Case-study research maintains a considerable degree of open-endedness, and the boundary between subject of analysis and context is not clear at the start of the research and may remain fluid during the study.
- A case study involves researching directly a "real-life" whole, which creates a considerable depth of engagement with the subject and dense evidential materials across a range of aspects of the topic.
- Many potential research methods may be used within the case study.
- The outcome is a complex, often narrated, account that typically contains some of the raw evidence as well as its analysis and that ties together the many different bits of evidence in the study (Morgan, 2012b, p. 668).

Readers of Mary Morgan's work will recognize these characteristics as the characteristics of her own work, including the fifth, which states that her accounts are never simple stories, but detailed narratives in which evidence, analysis, theory, tools, and techniques together form a complex account to stay as "true" to the case as possible.

This symposium is based on the papers presented at the Curiosity, Imagination and Surprise Conference held at the Descartes Centre for the History and Philosophy of the Sciences and the Humanities of Utrecht University of September 1–2, 2017. This conference aimed to discuss the works and ideas of Mary Morgan by what we called her "students." These "students"

were all her former PhD students and postdocs with whom she has collaborated closely in one of her projects.[4] The contributors were invited to connect their work in some way to Mary Morgan's. It appeared that the conference's title functioned as a fruitful inspiration to design the presentations at the conference and the papers in this symposium.

For her selection of potential fruitful and rewarding case studies, Mary Morgan has never been retained by any disciplinary boundary. This also applies to the people she has worked with; they have a broad range of different backgrounds, in- and outside academia. This was also striking at the conference. Unfortunately, some of the participants, most of them now working outside academia, were unable for various reasons to contribute to this symposium. I would like to thank them for their valuable contributions to the conference: Simona Valeriani (*F*: Facts and Artefacts: What Travels in Material Objects),[5] Peter Cirenza (*Melting Pot or Salad Bowl? Assessing Irish Immigrant Assimilation in Late Nineteenth Century America*, 2011),[6] Jon Adams (*F*: The Fact/Fiction Ratio in Science Writing), Julian Reiss (*Epistemic Virtues and Concept Formation in Economics*, 2002), Marcia Balisciano (*American Economic Planning, 1930–1950: The Rise and Fall of Ideology*, 1999), Adrienne van den Bogaard (*Configuring the Economy: The Emergence of a Modelling Practice in the Netherlands, 1920–1955*, 1998), and Makiko Ito Harrison (*The Human Development Index: A Search for a Measure of Human Values*, 2001).

Although not specified in advance, it appeared that the subjects of the contributions to this Symposium reflect the topics Mary Morgan was working on in the period the author in question was either her PhD student or a postdoc she collaborated with. The first paper, "Health Economic Modeling: Fact or Fiction? Useful to Policymakers in Spite of Untruths" is written by Mary Morgan's first PhD student at the University of Amsterdam, Joshua Cohen (*Utility: A Real Thing – A Study of Utility's Ontological Status*, 1997). The thesis was written when the "Models as Mediators" project was running, and one of the main questions was to understand how models gain their representative power.

The authors of the next three chapters, Harro Maas (*Mechanical Reasoning: Jevons and the Making of Modern Economics*, 2001), Peter Rodenburg (*The Construction of Instruments for Measuring Unemployment*, 2006), and Hsiang-Ke Chao (*Representation and Structure: The Methodology of Econometric Models of Consumption*, 2002) are also Amsterdam PhD students of Mary Morgan and were participating in a joint project on Measurement in Physics and Economics (1993–2002) between the research groups at LSE (Measurement in Physics and Economics) and at the University of Amsterdam (History and Methodology of Economics). Maas's "Calculators and Quacks. Feeling the Economy's Pulse in Times of Crisis" relates nicely to Mary Morgan's early work on the relation between models and policy making, particularly in the Dutch context which for a long period was dominated by Jan Tinbergen's legacy. Also Rodenburg's "Rationalisation and the 'Engineer-Economists' in the Netherlands, 1920–1940" concerns the same relation, but while Maas discusses

the post-Tinbergen Dutch economic policy landscape, Rodenburg explores the pre-Tinbergen era.

The study of models as representations should not be limited to formal models alone. Therefore, Mary Morgan also maintained a strong interest in less formal representations such as graphs and diagrams and other visual representations – even a 3D visualization, the Phillips-Newlyn machine. Chao's "Shaping Space through Diagrams: The Case of the History of Location Theory" built nicely upon this research trajectory.

Although Mary Morgan's main affiliation is the LSE Department of Economic History, her work was and is not restricted to any disciplinary boundary and includes fields such as the history and philosophy of science and science studies. This inclusiveness makes her attractive to LSE students with similar attitudes and interests. Tiago Mata (*Dissent in Economics: Making Radical Political Economics and Post Keynesian Economics, 1960–1980*, 2006) is such a student. His "'Influence' in Historical Explanation: Mary Morgan's Traveling Facts and the Context of Influence" reflects on the role of Mary Morgan as supervisor and whether this can be expressed in terms of "influence" – again a typical struggle of finding the right terminology.

While Mata is the earliest LSE PhD student in this Symposium, Gerardo Serra (*From Scattered Data to Ideological Education: Economics, Statistics and the State in Ghana, 1948–1966*, 2015) is the most recent student of Mary Morgan in this volume. His contribution to this Symposium, "Pleas for Fieldwork: Polly Hill on Observation and Induction, 1966–1982," is nicely connected with Mary Morgan's project on measurement and observations, particularly on cases where measurement and observations were made in contexts where they originally were not designed for, or were supposed to be context-free.

The next three contributors, Aashish Velkar (*Markets, Standards and Transactions: Measurements in Nineteenth-century British Economy*, 2008), Sabina Leonelli (*F*: Making Small Facts Travel: Labels, Vehicles and Packages), and Edmund Ramsden (*F*: Facts at the Frontier: Crossing Boundaries between Natural and Social, Animal and Human) participated in the "How Well Do Facts Travel?" project (2004–2009). Velkar's "Imagining Economic Space in Colonial India" connects the problem of context-free measurement to visualization, nicely "colligating" these topics into one narrative on imagination.

Leonelli's "Rethinking Reproducibility as a Criterion for Research Quality" provides a useful reflection on the scientific quality of case-study research: if direct reproducibility is not the standard for this kind of approach, but reproducible expertise or reproducible observation, which means that *any* skilled researcher would produce or pick out similar results, the role of Mary Morgan might be reduced to one of only being an "agency" or "mediator." But the practice of science is not only about "justification," it is also about asking the right questions, the reasons for conducting a particular kind of research, which also determines not only the focus and scope, but also the research methodology.

Ramsden's "Tales of the Unexpected: The Use of Narrative in Studies of Experimental Neurosis" built explicitly upon Mary Morgan's most recent

project on narratives. The last project is closely connected to her work on models and experiments in which she emphasizes that "stories" are an essential part of model-based and experimental reasoning.

The last "student's" contribution "Creating Economics in the Lab: From Physical Place to Laboratory Space", by Andrej Svorenčík (*The Experimental Turn: A History of Experimental Economics*, 2015), addresses the relevant point of location. Universality of knowledge often implies globalization, which assumes that location is irrelevant and context can be ignored. Many contributions of this Symposium, if not all, show that this is a misconception of what scientific knowledge is.

At the conference, Hsiang-Ke and I became rather curious about Mary Morgan's reflections after having listened to the several presentations of her "students." Therefore, we invited her to note them down, which she happily accepted, and we made sure that the subsequent versions of the contributions were also available to her. The nice result of this process is that we gained some insight into the kind of responses she gives to the ideas from her "students," rather similar – as we assume – to those she has given while working with them in the several projects mentioned above. And I agree with her research aims: these reflections do not only show attempts at understanding, but moreover (successful as I would say) attempts at illumination, that is to say, they bring new light onto their works.

NOTES

1. Whenever I refer to Mary Morgan, I will do so in this way. The usual last name reference pretends a kind of distance that does not reflect the relationship I have to her and a first-name reference would suggest a less than objective approach in my reflection of her work. I believe, therefore, that the reference Mary Morgan is a sound middle way.
2. In a personal correspondence, Mary Morgan emphasized that science should not be reduced to a set of "practices," and that "ideas" are important as well. Without ideas some of the practices would never have developed. In this context it should be noted that her thesis book was called *The History of Economic Ideas* (Morgan, 1990).
3. At the conference, many participants acknowledged and appreciated this Socratic role she had and still has in their personal developments: questions that are always challenging. In 1992, Mary Morgan was a member of my dissertation committee, and in the acknowledgments of my PhD thesis I thanked her "for asking the right questions."
4. Although I am not a "student" of Mary Morgan in this sense, I have enjoyed being in the position of having collaborated with her on several occasions, and having been – to a more or lesser extent – involved with some of her projects. This was the reason that Hsiang-Ke Chao approached me three years ago to organize the conference jointly, and to coedit this symposium. My status as being not a "student" of Mary Morgan enables me to write this editorial introduction to the symposium in a different relationship to her works than that of her "students."
5. Titles between brackets with *F* in front refer to the related subprojects of the "How Well Do Facts Travel?" project.
6. Titles and dates between brackets refer to the related dissertation written under supervision of Mary Morgan.

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