Arts & Humanities | Stephan Krämer

## The Relevance Project

Explanations, beliefs, truth

The Relevance Project aims to explore the observation that many philosophically important concepts imply a form of 'relevance'. Existing accounts of these concepts fail to adequately capture their connection to relevance. They also provide an incomplete understanding of how these concepts are connected. The Relevance Project team, based at the University of Hamburg, consists of Dr Stephan Krämer, Dr Stefan Roski, Dr Martin Glazier, Singa Behrens and Giuliano Rosella. They aim to remedy the failures of existing accounts of relevance by focusing on three areas where the phenomenon plays a central role: logic, explanation, and epistemology.

team of philosophers (Dr Stephan Krämer, Dr Stefan Roski, Dr Martin Glazier, Singa Behrens and Giuliano Rosella) at the University of Hamburg make up the Relevance Project, a research group within the German Research Foundation's Emmy Noether programme. The project's starting point is the observation that many important concepts imply a relation of relevance, ie, that things that stand in these relations must be relevant to each other. Existing accounts of this observation fail to properly capture the relevance implied in such concepts, as well as failing to properly understand the way in which relevance unifies these concepts. The Relevance Project team aim to remedy the failures of the existing accounts of relevance by focusing their attention on three areas in which a unified phenomenon of relevance seems especially plausible: logic, explanation, and epistemology.

Relevance plays an important role in

philosophy, particularly in its central relations – eq, confirmation, explanation, causation, grounding, etc - and this

relevant adjective Related to or as ble, apposite, a

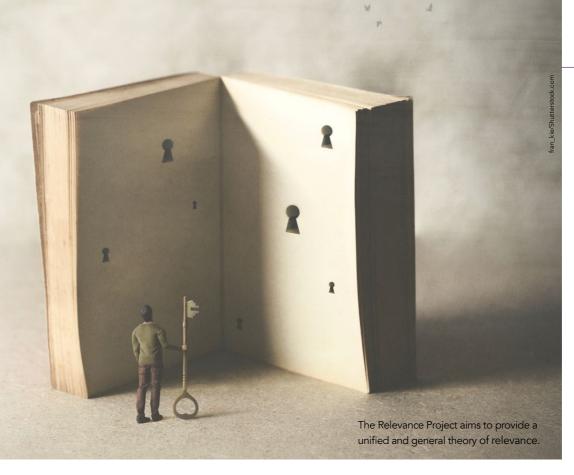
appears to be a unifying feature of these relations that the project is trying to illuminate.

Past theories have approached the various relevance-implying relations in piece-meal fashion, and thus failed to offer any account of a general sense of relevance. They have also assumed that relevance is 'intensional', which means that it does not distinguish between necessarily equivalent statements, and therefore used formal frameworks that treat such statements as identical.

The Relevance Project team, in contrast, aim to provide a unified and general theory of relevance. Moreover, they see relevance as hyperintensional so that even necessarily equivalent statements can differ with respect to relevance, and therefore use a novel approach of truthmaker semantics as their formal background framework. The central assumptions of the project are:

- that relevance is a unified phenomenon
- that relevance is hyperintensional
- that relevance is a matter of providing reasons; eq, to be relevant to a hypothesis is to provide reasons for accepting or rejecting it
- that the recently developed hyperintensional theory of truthmaker semantics is an ideal framework for the study of reason and relevance relationships.

Adhering to these assumptions helps to develop a strategy of formulating hyperintensional accounts of several relevance-implying concepts and then studying their similarities and interrelations.



#### **REVISING BELIEFS**

Stephan Krämer's work concerns logical and epistemic relevance. In his paper 'The Whole Truth', he argues for implications

of relevance in the notion of a complete truth. Oftentimes it is important not just whether a particular account of the subject matter is true, but whether

it is the whole and complete truth about the subject matter. Krämer argues that a complete truth must not only entail, but entail with relevance every truth about the given subject matter. He concludes that a truth concerning a specific subject matter is complete only if every fact pertaining to the subject matter has relevance in making the truth true.

In his paper 'Mighty Belief Revision', Krämer criticises intensional accounts of belief revision. He argues that the proper rational response to new information will depend on which of our beliefs the new information is relevant to. The paper provides a hyperintensional account of information and belief revision in which Krämer argues against the intensionalist principle that, when receiving pieces of information that appear equivalent in terms of classical logic, one should

they may differ in what they say about what might be the case.

#### **RELEVANT EXPLANATIONS**

Stefan Roski's research focuses mainly on the concept of explanation as he attempts to answer the question: what makes information relevant in explaining a given phenomenon? Roski's view is a form of realism. In such a view, explanations tell us something about the world. They situate phenomena in complex networks of causal influences. A theory of explanation has to provide a means to reduce this complexity. This includes criteria that help answer the question: which of the myriad causal influences on any given phenomenon made an actual difference to its occurrence?

Prior approaches to this question have been along the lines of difference-making in terms of counterfactual scenarios. This is when an event is considered relevant to an explanation of a fact only if, had the event not occurred, the fact would not have obtained. Again, these approaches have mostly used intensional models, something the Relevance Project seeks to depart from. Roski's paper 'Metaphysical

> Explanations and the Counterfactual Theory of Explanation' shows that counterfactual approaches are not feasible in general. In future work, he aims to provide a

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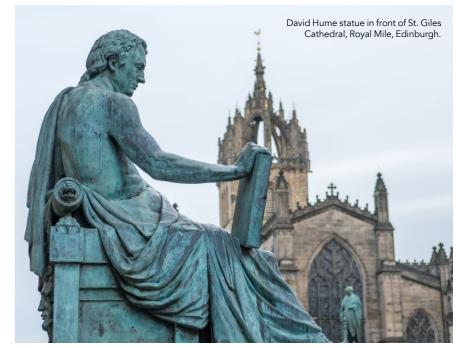
Relevance appears to be a unifying feature of many philosophically central relations, like explanation, confirmation, causation, and grounding.

respond to them in the same way. The

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reason the principle fails is that while such



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LOGICAL

in her PhD

**AUTONOMY** 

Singa Behrens,

project, focuses

her attention on logical

and metaphysically

explanatory relevance

hyperintensional theory of differencemaking in explanation instead, ie, one in which the differences in relevance show up even in facts that obtain in exactly the same counterfactual scenarios.

#### **GROUNDING EXPLANATIONS**

Martin Glazier's work focuses on how relevance is connected to so-called 'grounding explanations'. A grounding explanation of a fact is given when we describe what that fact consists of, eg, when we explain that being immune to COVID-19 consists of having specific antibodies that are capable of destroying and neutralising the SARS-CoV-2 virus. Philosophers increasingly view these grounding explanations as central to their project of giving a concise yet comprehensive account of reality.

But what precisely is the role of grounding explanation in giving such an account? Glazier's paper 'Relevance and the Aim of Fundamental Metaphysics' proposes an answer. He argues that the kind of account of reality philosophers seek requires uncovering what is relevant to explaining everything we should want to explain, or everything that is worth knowing in the first place. Glazier's proposal offers a way of understanding Kit Fine's claim that the task of 'realist  $metaphysics \dots is complete once it \\$ becomes clear how what is apparent, or not real, is to be rendered intelligible in terms of what is real'. Glazier's work also draws on and improves on Krämer and Roski's previous work on differencemaking and explanatory relevance.

normative and non-normative claims are held in two separate logical domains.

Behrens' notion of metaphysical autonomy however, concerns whether normative facts are ultimately reduced to, or explained by, merely descriptive ones. In her paper 'No Normative Free Lunch', Behrens argues that prior attempts to explain the metaphysical autonomy thesis do not adequately capture the way in which the descriptive domain may still be relevant to the normative domain, and thus fail.

Behrens' research instead provides an answer to this problem using a hyperintensional proposal and by employing truthmaker semantics (ie, by modelling statements on the set of situations making them true), an approach favoured by the Relevance Project as a whole.

#### THE PROJECT

Under the stewardship of principal researcher Stephan Krämer, the Relevance

## A complete truth must not only entail, but actually entail with relevance every truth about the given subject matter.

relations between the descriptive and the normative domains. She explores the extent to which the normative domain is allowed an autonomy of sorts in relation to the descriptive domain. A notion of logical autonomy is related to the 'isought problem' of the British Empiricist philosopher David Hume. Hume holds that we cannot infer a normative statement (ie, what ought to be) from purely descriptive statements (ie, on what is). In essence this means that the

Project is divided into three phases. The first is to show that relevance is a unifying feature of the relevance-implying relations in logic, explanation and epistemology. The second is to develop a general theory of relevance; to provide a new account of its nature and a unified framework for the study of relevance relations. The third phase will be to then apply the novel theory to further areas of research, including the practical forms of relevance.



# Behind the Research Dr Stephan Krämer

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### Research Objectives

The Relevance Project, based at the University of Hamburg, seeks to gain a more nuanced understanding of the concept of 'relevance'.

#### Detail

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#### Bio

Dr Stephan Krämer is a lecturer in

philosophy at the University of Hamburg, having previously held two postdoctoral positions in Hamburg and a lectureship at the University of Glasgow. He has won two major research grants, including his current project on Relevance. Krämer specialises in logic, metaphysics, and formal epistemology.

#### **Funding**

Deutsche Forschungsgemeinschaft, University of Hamburg

#### Collaborators

Team members: Dr Stefan Roski, Dr Martin Glazier, Singa Behrens. Affiliated member: Giuliano Rosella.

#### References

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## Personal Response

## How could the theory of relevance be applied to practical considerations in the real, lived world?

The likeliest practical applications of our work concern computer science, broadly construed. Krämer's work on belief revision is connected to problems in updating, especially in cases of inconsistent databases, and to the frame problem in AI. We are also interested in connections to concepts of relevance in machine learning. The concept of grounding sheds light on questions about the application of blockchain technology; see <a href="https://www.coindesk.com/enterprise-blockchain-doesnt-work-because-its-about-the-real-world">https://www.coindesk.com/enterprise-blockchain-doesnt-work-because-its-about-the-real-world</a> for more information.



