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研究成果の概要(和文):本研究の研究成果は三つに分けられる。(1)概念における曖昧性や段階性がいかにして生 じるのかに関する概念空間説を展開してきた。その結果は非常に実り多いものであり、多くの論文の形で出版された。 (2)曖昧性は普遍的な現象であるという標準見解を徹底して批判してきた。この見解は曖昧性という概念そのものの 整合性を脅かすことになる様々な論理的パラドクスを惹起してきたのである。その成果として、雑誌マインドにて長編 の論文を公開した。(3)2013年度に東京大学にて曖昧性と確率に関する大規模な国際学会を主催した。申請者は雑誌 Syntheseのゲスト編集者であり、その学会から10以上の論文が刊行される予定である。

研究成果の概要(英文): The outcome of my research is threefold: (1) I have developed an conceptual spaces account of how vagueness and gradability in concepts may emerge. This approach turned out to be very fruitful and has led to a number of papers (published in Synthese, Journal of Philosophical Logic, LNAI). (11) I write a long and thorough critique of the received idea that vagueness is a universally pervasive phenomenon; this idea has led to various logical paradoxes which effectively challenge the very idea that our conception of vague is coherent. The outcome of this is a very long paper, which is under review with the international journal of MIND. (111) I organised a large-scale international conference on vagueness and probability (in 2013) at the University of Tokyo. I am guest-ediitor of a special issue with SYNTHESE, in which more than ten papers that emerged from this conference are going to be published.

研究分野: Philosophy of Thought and Language

キーワード: Vagueness Definite Truth Borderline Cases Higher-Order Vagueness Impossibility Results

# 1.研究開始当初の背景

I got interested in the epistemology of vagueness already during my time as a graduate student in Oxford. My PhD thesis was on the epistemology and formal semantics of vague languages, as an outcome of which I published a couple of papers in Philosophical Perspectives and the Notre Dame Journal of Formal Logic. The focus of this published work was on the structure of rational credence for vague languages.

### 2.研究の目的

The aim of my research was two-fold. I wanted to carry out some serious studies on the psychological foundations of vagueness in thought. For another, I aimed to write a thorough critique of the received idea that vagueness can be only theorised about in terms that are themselves vague. In the papers I could complete during my 3 year project, I effectively tackled both goals, with very interesting results that have the potential to be developed further in future studies.

# 3.研究の方法

Methodologically, the most innovative part of my project were my papers on conceptual spaces (some of which were joint projects—see above). This approach has found already various very usefull applications in cognitive science and psychology, but it is entirely novel and (I/we argued) fruitful for the study of vagueness.

# 4 . 研究成果

The Kakenhi research grant was a great help for me in allowing me to travel to departments in Japan (Department of Philosophy, UTokyo, October 2011. December 2011, October 2013; Keio University, February 2012, November 2013; University of Miyazaki, Miyazaki, December 2012; Department of Philosophy, University of Sendai, December 2013; Department of Philosophy. Kvoto University, December 2013; Department of Philosophy, University of Hokkaido, Sapporo, May 2014), South Korea. (Department of Philosophy, Seoul National University, Seoul, January 2013, February 2014; department of Philosophy, Korean Analytic Philosophy Association conference,

Korean University, Seoul, February 2014; Faculty of Arts, Yonsei University, Seoul, February 2014, Yonsei University, Seoul. March 2015), Hong Kong (Department of Philosophy, Lingnan University, January 2015; Department of Philosophy, Hong Kong University, January 2015), Taiwan (Department of Philosophy, Taiwan National University, Taipei, September 2012). Sweden (Department of Philosophy. Stockholm University. Stockholm. September 2013), Poland (Department of Philosophy, University of Warsaw, Warsaw, December 2015), the UK (Institute of Philosophy, London, United Kingdom, September 2012), and Germany (Department of Philosophy. Ludwig Maximilians Universitaet Muenchen. August 2014), where met other Ι researchers. receiving verv valuable feedback on my work on vagueness.

As a result, I could carry out and complete number of research projects ล on vagueness, some of which have meanwhile published in peer-reviewed journal. The first paper in this strand was a joint with Igor Douven (Sorbonne. Paris & UGroningen). Lieven Decock (VU Amsterdam), and Paul Egre (Institut Jean Nicod, Paris). It offers a novel perspective on the topic of vagueness, bringing to bear recent work from cognitive psychology on so-called conceptual spaces to the problem of vague conceptualisation. The core thesis we bring to fore in the paper is the view that vagueness emerges from some indeterminacy in the way we conceptualise typicality (questions about paradigm cases and genericity). In effect, we provide a completely new account on the genealogy of vagueness in concepts, stemming from vague paradigm cases and leading to the vagueness of conceptual boundaries. This paper appeared meanwhile in the Journal of Philosophical Logic.

The second paper in this strand is my paper on comparative concepts. In this paper, I start from the conceptual spaces framework and generalise it in a way that accommodates an aspect that was left out in the first mentioned project. I mean the fact that vagueness in concepts usually comes with gradability. In this project, I was able to prove some very interesting theorems, which shed new light on the question of why gradability usually comes association with vagueness. In in particular, I could provide a new

vindication for Peter Gaerdenfors's recent view that projectible concepts are typically convex. In effect. I provide also a new perspective on the new famous riddle of induction, which is due to Nelson Goodman. This work has been meanwhile published in the journal Synthese.

A third paper in this strand was a joint project with Igor Douven (Sorbonne, Paris & UGroningen) and Lieven Decock (VU Amsterdam). In this paper, we compare my account of vagueness and gradability (see 2nd project, as given above) with some alternative account which was recently by Douven and Decock. In our comparative survey, we have found very interesting new results, which shed new light on the potential and the limitations of each account. This paper was meanwhile published in the Lecture Notes of Artificial Intelligence, which appears with Springer.

A fourth paper, with Dr Julien Murzi (then UKent, now University of Salzburg) pertained to the question as to whether judgements on future contingents form a species of vagueness, and whether this bears on the philosophical notion of truth. Some authors (like John MacFarlane) have recently argued that judgements about future contingents ARE vague, and that this vagueness can be only accommodated in terms of a relativistic concept of truth. According to this, the truth-value or utterances or propositions may with the points of time at which we assess such utterances or propositions. In our paper, we could show that this argument for truth-relativism from vagueness with respect to future contingents can be effectively refuted. To wit, as we show, the argument rests essentially on a particular account of the modal notion of actuality, which (as we argue) is inadequate. Once the notion of actually isproperly for characterised vague discourse regarding the future, in fact, there is no need for a relativistic truth concept, and a non-relativistic classical concept of truth is sustainable. The results of this paper were published meanwhile in the journal Synthese.

Some other projects led to papers that have been meanwhile completed and are now under review:

I started an editorial project on vagueness

and probability, which is going to appear soon as a special issue with the peer-reviewed international iournal Synthese. This volume will contain more than ten contributions by leading experts in the field. The editorial project emerged from the conference Vagueness & Probability, which I organised at UTokyo in March 2013. The volume is projected to appear in print by the end of this year.

My own contribution to this conference gave rise to a long-term project, resulting to a very long paper (36.000 words) on the problem of radical higher-order vagueness. One of the most central topics in the contemporary philosophy of vagueness is the question of how to describe in a way that both accommodates central intuitions about vagueness and is coherent. A number of famous results that came out in the last two decades seem to suggest that this is impossible—that is, that vagueness in the intuitive sense is impossible. In my project, I have achieved three things. First, I have developed a more general framework that allows comparing the said different impossibility results in the same terms. which is most illuminating for the interpretation of the overall philosophical significance of these results. Second, I have scrutinised the so-far given philosophical arguments for the view that vagueness is universally pervasive (a view that goes back famously to a paper by Bertrand Russell). The shist of my argument is that this view is ill-motivated, resting on ill-grounded methodological hypotheses on what a theory of vagueness should achieve. This paper is now under review with MIND.

Furthermore, the funding made it me possible to start a number of joint projects on vagueness, with I. Douven, and most recently, with Prof. Tatsuji Takahashi (Tokyo Denki University).

I have furthermore started working on another editorial project, on Vagueness & Practical Interests, which is going to appear in the new Springer monograph series "Language, Cognition & Mind".

I am most grateful to the Japanese Society for the Promotion of Science for having supported my three years project on vagueness, which bore out so many fruits. I am very much indebted to your institution. 5.主な発表論文等

(研究代表者、研究分担者及び連携研究者に は下線)

【雑誌論文】(計 5件) <u>Richard Dietz</u>, Vagueness and the Structure and Content of Appearance, 哲学雑誌、査読なし、799 巻、2012、 190-206.

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Richard Dietz with Julien Murzi, Coming True: A Note on Truth and Actuality. *Philosophical Studies*, 査読 あり、163巻、2013、403-27.

<u>Richard Dietz</u>、Comparative Concepts. Synthese, 査読あり、190 巻、2013、 139-170.

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<u>Richard Dietz</u>, Vagueness, Looking the Same, and Observationality, European Society for Philosophy and Psychology conference, 2015年8月28 日、Institute of Philosophy.

<u>Richard Dietz</u>, Modelling comparative concepts in conceptual spaces、Aspects of Perceptual Experience Symposium, 2012 年 11 月 3 日、東京大学。

<u>Richard Dietz</u>, Actuality in branching time、7<sup>th</sup> Beseto conference, 2013年 1月6日、Seoul National University.

<u>Richard Dietz</u>, The possibility of vagueness, Probability and Vagueness Conference, 2013 年 3 月 21 日、東京大学。

<u>Richard Dietz</u>, Understanding Vagueness, Research Seminar Talk (招 待講演), 2013 年 6 月 11 日, Queen's University Belfast.

<u>Richard Dietz</u>、The possibility of Vagueness、LENLS10(招待講演) 2013 年 10月 26日、Keio University.

<u>Richard Dietz</u>、 The possibility of Vagueness 、 Mind and Language Symposium (招待講演)、 2013 年 10 月 28 日、Annual Meeting of the Japanese Society for Philosophy.

<u>Richard Dietz</u>, Historical Modal Book-keeping, Frontiers in the

Philosophy of Time Conference (招待講 演) 2013年12月1日、Kyoto University. Richard Dietz, Historical Modal Book-keeping, Colloquium of Logic and Philosophy (招待講演) 2013 年 12 月 20日、Sendai University. <u>Richard Dietz</u>, The possibility of Vagueness, Current Trends in Analytic Philosophy (招待講演) 2014年2月7  $\square$ , Yonsei University. Richard Dietz, Actuality as a historical modality, Korean Society for Analytic Philosophy winter conference (招待講 演) 2014年2月22日、Seoul. Richard Dietz, The Possibility of Vagueness、PhilEth seminar talk (招 待講演) 2014年5月26日、Hokkaido University. Richard Dietz, Vagueness (5 talks), Philosophical Summer Academy (招待 講演) 2014年8月25日~2014年8月 29日、LMU Munich. Richard Dietz, Menu-dependent distinctions, vagueness, and tolerance 1, Tuesday Research Seminar (招待講 演) 2014 年 12 月 9 日、University of Warsaw. Menu-dependent Richard Dietz, distinctions, vagueness, and tolerance 2, Polish Smiotic Society (招待講演) 2014 年 12 月 12 日、University of Warsaw. Richard Dietz, The myth of radical higher-order vagueness, Sminars in Lingnan University (招待講演)、2015 年1月20日、Lingnan University. Richard Dietz, Vagueness as tolerance reconsidered, Seminars in HKU (招待 講演) 2015年2月22日、HKU. Richard Dietz, Disagreement and aboutness, Pluralisms Global Research Network Workshop 5 (招待講演) 2015 年3月21日~2015年3月22日、Yonsei University. 〔図書〕(計 1件)

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〔産業財産権〕

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