

The 3rd International Workshop on Logic and Philosophy |

Agency and Intentionality: between Individual and Collective

第三届逻辑与哲学研讨会 | 主体性与意向性：集体与个体之间

Time: May.25-26, 2024. 09:00-18:00

Location: Tsinghua University, Research and Conservation Center for
Unearthed Texts, Room 440
清华大学出土文献研究与保护中心, 440 会议室

Organizer: Department of Philosophy, Tsinghua University
清华大学哲学系
Tsinghua - UvA Joint Research Centre for Logic
清华大学-阿姆斯特丹大学逻辑学联合研究中心
School of Philosophy, Shanxi University
山西大学哲学系

Programme

● 2024-05-25

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| Opening Chair: Liu Fenrong 刘奋荣 | 9:00-9:15 | Welcome: Martin Stokhof (Tsinghua & UvA) Tang Wenming 唐文明 (Tsinghua University) You Yang 尤洋 (Shanxi University) |
| 9:15-9:30 Group photo | | |
| Keynote Presentations-1 Chair: Martin Stokhof | 9:30-10:45 | Deborah Tollefsen (University of Memphis) : Shaping the Institutional Mind |
| 10:45-11:00 Break | | |

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| Contributed Presentations-1 | 11:00-11:30 | Liu Chuang 刘闯 (Fudan University & CAS): Moral Facts as Group we-Facts via Evolution |
| | Chair: Martin Stokhof | 11:30-12:00 Wu Xiaoxi 武小西 (Southeast University): The Sociality of Individual Agency - Reconsider Korsgaard's Argument for the Publicity of Reason |
| 12:00-13:30 Lunch | | |
| Contributed Presentations-2 | 13:30-14:00 | Thomas Ågotnes & Wang Yiyan 王奕岩 (University of Bergen / Shanxi University, on-line): Collective Agency and Coalitional Power in Games |
| | Chair: Asher Jiang 蒋运鹏 | 14:00-14:30 Tan Xiao 谭笑 (Capital Normal University): Group Active Structure As Know-How |
| 14:30-14:45 Break | | |
| Contributed Presentations-3 | 14:45-15:15 | Niu Lei 牛磊 (University of Cologne): Group Believers: The Argument from Group Persuasion |
| | Chair: Shi Chenwei 石辰威 | 15:15-15:45 Hu Yang 胡扬 (South China Normal University): Game Theoretic Account for De Se Communication |
| | 15:45-16:15 | Zhan Yiwen 展翼文 (Beijing Normal University): Groups as Pluralities, but Structured |
| 16:15-16:30 Break | | |
| Keynote Presentations-2 | Chair: Hao Tang 唐浩 | 16:30-17:45 Marc Slors (Radboud University): Stylistic conventions and large-scale group collaboration |
| 18:00-19:30 Banquet | | |

● 2024-05-26

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| <p>Keynote Presentations-3</p> <p>Chair: Liu Fenrong 刘奋荣</p> | <p>9:00-10:15</p> | <p>Branden Fitelson (Northeastern University, on-line): Probabilities of Conditionals and Conditional Probabilities -- Revisited</p> |
| <p>10:15-10:30 Break</p> | | |
| <p>Contributed Presentations-4</p> <p>Chair: Yiyan Wang 王奕岩</p> | <p>10:30-11:00</p> | <p>Paul Forrester (Yale University, on-line): The Fittingness of Individual and Collective attitudes</p> |
| | <p>11:00-11:30</p> | <p>Chen Weiwei 陈伟伟 & Ju Shier 鞠实儿 (Sun Yat-sen University): Dynamically rational Collective Argumentation</p> |
| | <p>11:30-12:00</p> | <p>Guan Chengying 管成鹰 (King's College London): The Ontology of Action and Radical Novel Agent Causalism</p> |
| <p>12:00-13:30 Lunch</p> | | |
| <p>Contributed Presentations-5</p> <p>Chair: Alexandru Baltag</p> | <p>13:30-14:00</p> | <p>Juliana Lima (Azim Premji University, on-line): Group Agency and Joint Indexical Beliefs</p> |
| | <p>14:00-14:30</p> | <p>Ji Chengrong 纪成蓉 & Xu Zhaoqing 徐召清 (Sichuan University): Logical Consequence and The Normativity of Logic</p> |
| | <p>14:30-15:00</p> | <p>Shi Chenwei 石辰威, Chen Qian 陈谦 & He Qingyu 何清瑜 (Tsinghua University): Common Knowledge as Mutual Range-Dependence</p> |

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| 15:00-15:15 Break | | |
| Contributed Presentations-6 Chair: Jeremy Seligman | 15:15-15:45 | He Qingyu 何清瑜 & Zhou Bangwei 周邦威 (Tsinghua University): An Analysis of Bystander Problem in A Multi-Agent Perspective |
| | 15:45-16:15 | Wang Ruili 王睿里 (Peking University): The Extension of Cognition in Hybrid Collective Decision-making |
| 16:15-16:30 Break | | |
| Keynote Presentation-4 Chair: Jeremy Seligman | 16:30-17:45 | Sonja Smets (University of Amsterdam): Learning what Others Know |
| Closing | 17:45-18:00 | Martin Stokhof & Yiyang Wang 王奕岩 (Tsinghua & UvA / Shanxi University) |
| 18:00-19:30 Banquet | | |

Abstracts

[Keynote speakers]

- **Deborah Tollefsen** (University of Memphis)

Title: Shaping the Institutional Mind

Abstract: In this paper, I argue that when we attribute mental states to institutions such as corporations, we are harnessing the regulatory power of folk psychology (McGreer, 2015) to make institutions more and more agent-like. Institutional mindshaping further increases our ability to cooperate and coordinate in a complex social world. I offer two examples of institutional mindshaping in support of this thesis—one drawn from corporate criminal law

and the other involving corporate narratives. I conclude by contrasting my approach to institutional/group agency with fictionalism and other theories of group agency.

- **Marc Slors** (Radboud University)

Title: Stylistic conventions and large-scale group collaboration

Abstract: The evolution of human group collaboration is widely agreed to hinge on the emergence of psychological tendencies and capacities such as those for joint intentionality, prosociality, norm psychology, and cultural learning. The step to large-scale collaboration in complex societies is often attributed to religion and shared beliefs. I argue that the complex division of labour that large-scale collaboration involves also requires the capacity to keep track of social categories that define and regulate distinct social roles without too much cognitive effort. For this a wide range of stylistic conventions such as dress codes and etiquette is used as a specific kind of 'correlation devices'. This requires high susceptibility to stylistic conventions, for which there would have been group level selection pressure. Our sensitivity to dress codes, etiquette, accent, demeanor and other stylistic conventions that are at play in what Bourdieu called our 'habitus' is a psychological feature of individuals that can best be accounted for at the group level. It explains why large-scale collaboration is a form of group agency that cannot be fully reduced to the aggregate of individual intentions and reasons. It also accounts for some features of present-day cultural frictions.

- **Branden Fitelson** (Northeastern University)

Title: Probabilities of Conditionals and Conditional Probabilities -- Revisited

Abstract: Lewis' (1976) trivality argument against The Equation (also known as Adams' thesis) rests on an implausible assumption about the nature of (epistemic) rational requirements. Interestingly, Lewis (1980) later rejected this assumption. In his discussion of the Principal Principle, Lewis makes a weaker and more reasonable assumption about the nature of rational requirements. In this paper, I explain how to apply the insights of Lewis (1980) to repair Lewis (1976). This leads to a more reasonable rendition of the equation -- one that is (a) immune to trivality and (b) a better candidate for a (bona fide) rational requirement.

- **Sonja Smets** (University of Amsterdam)

Title: Learning what Others Know.

Abstract: In this presentation I focus on a philosophical analysis of comparative epistemic assertions that capture the epistemic superiority of an individual or a group of agents over other agent(s). Such assertions can express that a group of agents collectively knows

everything that another group of agents knows. I present examples of epistemic superiority and analyze them in the context of different epistemic conditions. Next I focus on what agents (collectively/individually) know about their own epistemic superiority or that of others. On the dynamic side, I will discuss the type of actions by which epistemic superiority can be acquired. Such informational events subsume actions such as ‘sharing all you know’ with a group or an individual, giving someone access to a folder or database, hacking a database without the owner’s knowledge, etc. In this setting I will reason about epistemic group attitudes and ask when agents in a group can achieve common knowledge by means of specific information-sharing actions only within their subgroups. This leads to the introduction of a new collective attitude called common distributed knowledge. In the presentation I will show how common distributed knowledge combines features of both common knowledge and distributed knowledge. This presentation is based on joint work with A. Baltag on a philosophical discussion of the results in [1,2].

[1] A. Baltag and S. Smets, Learning what Others Know, in: Kovacs, L. and E. Albert (eds.), LPAR23 proceedings of the International Conference on Logic for Programming AI and Reasoning, EPIc Series in Computing, (2020), Volume 73, pp. 90-110.

[2] A. Baltag and S. Smets, Logics for Data Exchange and Communication, (2024), manuscript.

[Contributed speakers]

- **Liu Chuang** 刘闯 (Fudan University & Chinese Academy of Sciences)

Title: Moral Facts as Group *we*-Facts via Evolution

Abstract: Moral facts, if there are such things, seem fundamentally different from natural facts. But aren’t all facts natural or reducible to the natural? It seems that unless we admit the divine or the spiritual or some such entities into our ontology, there is no place for “moral facts.” On the other hand, if there are no moral facts, whence stem our moral judgements and evaluations, which are by no means subjective? This paper makes effort to provide a new realist solution to this perennial philosophical problem about the incompatibility between morality and objective facts, or between the moral and the scientific. Very roughly, we argue that there are moral facts, and they are a species of group or social facts that have a separate, second-order, ontology that is different from the natural, first-order, facts. We first discuss the game-evolutionary origin of altruism and justice, which may support either the expressivist or the realist view of morality. However, new discoveries in psychology of comparative studies of children and primates and recent philosophical work in group (or social) ontology seem to suggest that one should go beyond expressivism and see a

second-order reality (a reality of “*we*-facts”); and that is the reality that contains or grounds moral facts (which are not contained or grounded in the first-order natural reality of “*me*-facts”).

- **Wu Xiaoxi 武小西** (Southeast University)

Title: The Sociality of Individual Agency - Reconsider Korsgaard's Argument for the Publicity of Reason

Abstract: Christine Korsgaard’s theory of individual agency portrays a Kantian agent who acts on reasons that cut cross the reflective distance in his or her consciousness. This individualistic picture gives rise to a problem: how to account for the sociality of individual agency? One might bite the bullet and insist a solipsistic account of individual agency. But this is not Korsgaard’s stand. On the contrary, she repeatedly insists that persons are deeply social, and offers arguments trying to show how the Kantian individual is deeply socially rooted. The most convincing argument is the public reason argument, which is an analogy to Wittgenstein’s (anti) private language argument. The public reason argument starts with the claim that reason is like linguistic meaning, which is relational and normative. Since it is the relationality and normativity of meaning that make meaning public, reason is also public in the sense that the normative force of one’s reason is also shared by others.

However, Korsgaard’s account is ambiguous between these two claims: reasons are shared by all agents and reasons are only shareable. Concerning moral reasons, it is intuitive that reasons are actually shared. But, when it comes to reasons for personal ambitions, reasons seem to be only shareable without any claim to be actually shared. Korsgaard actually admits that the shareability of reasons constitutes a continuum, but the publicity of reason argument all by itself falls short of accounting for degrees of sharing.

I suggest that we can invoke Korsgaard’s conception of practical identity to account for the different degrees of sharing reasons. The idea is that the degrees of sharing are importantly shaped by the social structure in which individuals are deeply embedded. Furthermore, the sociality of individual cannot be fully explained by focusing on interactions between persons, social contexts and structures are actually what make interactions possible.

- **Thomas Ågotnes & Wang Yiyang 王奕岩** (University of Bergen / Shanxi University)

Title: Collective Agency and Coalitional Power in Games

Abstract: In this talk we examine coalitional agency, coalitional power, and related concepts, spanning philosophical foundations, relational ontology of agency, game theory, and formal logical structures. The so-called 'orthodox theory' of collective agency in philosophy attempts to reduce the very concept of collective back to the individual level. However, some recent work asserts that the essence of collective agency possesses irreducible elements. Similarly, existing logical formalisations of coalitional power usually take one of two extremes:

coalitional power is either a function of individual power (e.g., alpha-effectivity in non-cooperative games) or it is completely divorced from it (e.g., power in basic cooperative games). The former stance is captured by the so-called superadditivity axiom of coalition logic. We argue that superadditivity can be too strong, because it assumes that the coalition is able to coordinate their joint action and that it is stable (everyone has an incentive to participate). We also argue that it might be too weak: it might be that coalitions have exogenous power that does not arise from the powers of its members (think of the university, or the police department). In the talk we look at logical principles covering coalitional power in-between these extremes.

- **Tan Xiao** 谭笑 (Capital Normal University)

Title: Group Active Structure As Know-How

Abstract: "Group active structure " signify how a group is organized, including the procedures used to reach collective decisions and the hierarchy of roles within the group, etc. Group active structure is commonly manifested through material technologies such as assembly lines and sociotechnology. In this paper, I will argue that group active structure is a form of know-how, whereby certain knowledge and expertise are embedded within the technology or procedure itself. It contains what Gilbert Ryle claimed as the three essential components of know-how: capacity for efficient task performance; accountability; intelligence. Group active structure possesses the capability to proficiently execute tasks. It "should" act in a specified manner and can be held responsible for its actions. It not only fulfills its functional roles but also demonstrates intelligence.

There are two potential objections to this idea. 1.Can objects be considered agents that possess knowledge? The view of objects as purely passive is being challenged. Bruno Latour's actor-network theory posited that objects can act as agents within networks. With advances in AI, this perspective has gained more acceptance as technologies demonstrate unforeseen capabilities. 2. Can procedures and structures constitute a form of knowledge? Procedural knowledge has long been recognized in AI research as a key type of knowledge.

- **Niu Lei** 牛磊 (University of Cologne)

Title: Group Believers: The Argument from Group Persuasion

Abstract: There is a debate about whether groups can be genuine believers. There are two strategies for defending the idea of group believers. The first strategy focuses on the essential features of beliefs and expands individual beliefs to group beliefs. To illustrate the indispensability of group beliefs, defenders not only need to highlight similarities between individual beliefs and group beliefs but also their differences. This paper indicates the problem of this strategy, and considers an alternative one, interpretationism, which focuses on

agents and behaviour. I argue that while this argument faces a number of problems, we can find new clues along the same line to contribute to the debate. Inspired by the argument from interpretationism, this paper tries to modify interpretationism by considering special epistemic behaviour, namely, group persuasion. The idea is that groups can perform special epistemic practices, and we can interpret or predict their behaviour in a way that is different from individual behaviours.

- **Hu Yang 胡扬** (South China Normal University)

Title: Game-theoretic Account for De Se Communication

Abstract: “Centered worlds model” (Lewis, 1979a) has long become the standard semantics of de se beliefs. However, as Stalnaker (2008) indicates, it is incompatible with the “sameness requirement” from the belief transfer model for communication: they jointly lead to counterintuitive results when de se beliefs come to be communicated. There are three prevailing solutions to the problem of de se communication given centered worlds semantic framework: uncentering (Moss, 2012; Kölbel, 2013), recentering (Weber, 2013; Gibbard, 2012) and multicentering (Ninan, 2010b; Torre, 2010). Leaving aside technical criticisms levelled against the three solutions (Rudnicki, 2019; Recanati 2016; Pagin 2016 and etc.), I propose a game-theoretic account of de se communication on the basis of ambiguous readings (Grano, 2021) of the embedded indexicals in de se belief reports. First, there are two readings of a de se belief report which can be identified as “de se recognition” and “de se ignorance”. Second, I shall give both context modelling and solution modelling which are two pillars of our game theoretic account for de se communication. Here, I adopt the partial information game model just as what Clark&Parikh (2007) does for ambiguous pronoun resolution. Last, I shall discuss four presuppositions about this game theoretic approach.

- **Zhan Yiwen 展翼文** (Beijing Normal University)

Title: Groups as Structured Pluralities

Abstract: I defend a ‘pluralist’ account of groups, according to which a group is neither a (singular) mereological sum nor a set, but a plurality of its members. In particular, I will offer a novel semantic analysis that treats groups as higher-level pluralities (i.e. pluralities of pluralities, etc.). I show how this analysis, on the one hand, meets the desiderata for capturing the critical features of groups, and on the other hand, neatly accommodates the (metaphysician’s) requirement that group-formation should be ontologically innocent. Such an account of groups can be seen as enrichment of the standard structure of mereology, since, as I argue, we can regard any composite objects as groups. Moreover, I show that we will even be able to deal with sensitivities not only to ways of compositions but also to ways of constitutions while sticking to classical extensional mereology.

- **Paul Forrester** (Yale University)

Title: The Fittingness of Individual and Collective attitudes

Abstract: Our intentional attitudes, like belief, desire, admiration, envy, fear and many more, are all subject to norms of fit. But humans are not the only beings which can have such states: groups can have such attitudes too. This raises the question of how the fittingness-theoretic structure of these attitudes differs between groups and individuals.

Specifically, I investigate two kinds of conflicts between the attitudes which are fitting for a group and those which are fitting for its members. To state these conflicts, we must first distinguish subjective and objective fittingness. A proposition is objectively fitting to be believed iff it is true, but subjectively fitting to be believed iff it is supported by the evidence of the believer. This generalizes to all other attitudes which are subject to norms of fit. A *formal conflict* of fit is a situation in which the attitudes which are subjectively fitting for a group differ from those which are subjectively fitting for its members, in virtue of differences between the group's evidence and its members' evidence. A *substantive conflict* of fit is a situation where the attitudes which are objectively fitting for a group differ from those which are objectively fitting for its members, in virtue of differences in their evaluative perspectives. I show how both conflicts arise for a wide variety of groups and investigate some of the implications of such conflicts for group rationality and group action.

- **Chen Weiwei 陈伟伟 & Ju Shier 鞠实儿** (Sun Yat-sen University)

Title: Dynamically rational Collective Argumentation

Abstract: Collective argumentation has always focused on obtaining rational collective argumentative decisions. One approach that has been extensively studied in the literature is the aggregation of individual extensions of an argumentation framework. However, previous studies have only examined aggregation processes in static terms, focusing on preserving semantic properties at a given time. In contrast, this paper investigates whether decisions remain rational when the preservation process is dynamic, meaning that it can incorporate new information. To address the dynamic nature of collective argumentation, we introduce the revision and contraction operators. These operators reflect the idea that when an individual or a group learns something new by accepting or rejecting an argument, they have to update their collective decision accordingly. Our study examines whether the order of revising individual opinions and aggregating them affects the final outcome, i.e., whether aggregation and revision commute.

- **Guan Chengying** 管成鷹 (King's College London)

Title: The Ontology of Action and Radical Novel Agent Causalism

Abstract: Classical agent causalism in analytical philosophy of action, mainly advocated by Roderick Chisholm and Richard Taylor, suggests actions—ontologically speaking—are *events* caused by agents. As its rival, novel agent causalism suggests that actions are causings of corresponding results by agents, or rather, *agent-causings* of results. While Georg von Wright and Anthony Kenney pioneered the latter at about the same time as the former, it was only in the late 1990s that Maria Alvarez and John Hyman articulated and systematically defended the latter. Alvarez and Hyman construe 'agent-causings' as not events but rather a category *sui generis*. The present paper argues that depending on how much it departs from the conventional form of ontological categorization, there are two distinct interpretations of the *sui generis* view of the ontology of action: one moderate and one radical. Furthermore, it makes the case that the radical interpretation holds a greater promise to establish a new theory of action, which is appropriate to be called 'radical novel agent causalism'.

- **Juliana Lima** (Azim Premji University)

Title: Group Agency and Joint Indexical Beliefs

Abstract: Perry's Messy Shopper case and other similar cases have been used to argue that beliefs expressed by sentences with 'I' or demonstratives -- like 'she', 'he', etc. -- can't be reduced to beliefs expressed by co-referring proper names or definite descriptions. In this talk, I'll present similar cases and draw similar conclusions with first-person plural pronoun 'we' and demonstrative beliefs held by groups. I'll then argue that Perry's own view, the self-locating view, can't be easily extended to first-person plural or demonstrative beliefs held by a group. Lastly, I offer an alternative approach to group indexical beliefs where these are practical ways of thinking of objects, a natural extension of a view I have previously defended for beliefs expressed by sentences with 'I' or demonstratives. Whereas in these individual cases, the practical way is a know-how to personally interact with the object of the belief, in the group case it is a know-how to get the group to interact with it.

- **Ji Chengrong** 纪成蓉 & **Xu Zhaoqing** 徐召清 (Sichuan University)

Title: Logical Consequence and The Normativity of Logic

Abstract: Harman argues that logical argument is a deductive activity under logical rules, while actual belief reasoning is a psychological activity of belief change. Therefore, he questions the existence of possible normative bridges between them to explain the special normativity of logic for belief. McFarlane and others provide different bridge principles W, B,

C to respond to Harman. However, the main difficulty they face is that there are conflicts between the test criteria for selecting bridge principles, so no bridge principle can pass all the criteria tests. This paper divides logical normativity into two levels: internal normativity and external normativity, and then partitions the conflicting criteria into different normative levels, thus solving the difficulty of criteria conflict. Finally, based on the conflict-free criteria, the paper identifies the internal normative bridge and the external normative bridge that can pass all the tests from the 18 bridge principles provided by McFarlane, thus responding to Harman's challenge.

- **Shi Chenwei** 石辰威, **Chen Qian** 陈谦, **He Qingyu** 何清瑜 (Tsinghua University)

Title: Common Knowledge as Mutual Range-Dependence

Abstract: In [1], a simple logic of functional dependence (LFD) is introduced. There is a tight connection between LFD and epistemic logic. As demonstrated in [1], the dependence operator $DX\phi$ in LFD corresponds to the operator for distributed knowledge in epistemic logic. The dependence atoms DXy in LFD have the following epistemic interpretation: agents in group X have no less distributed knowledge than agent y .

Given the epistemic interpretation of LFD, the following question arises naturally: how can the common knowledge operator be understood in terms of dependence relation in LFD? In this talk, an answer will be proposed. We will introduce a new notion of dependence called "range-dependence" and show that common knowledge operator for a set of variables can be interpreted as mutual range-dependence of the variables in the set.

[1] Alexandru Baltag and Johan van Benthem. A simple logic of functional dependence. *Journal of Philosophical Logic*, 50:939–1005, 2021.

- **He Qingyu** 何清瑜 & **Zhou Bangwei** 周邦威 (Tsinghua University)

Title: An Analysis of Bystander Problem in A Multi-Agent Perspective

Abstract: The classic bystander problem consists of three parts: 1) Agent A wants to harm Agent B; 2) Agent B is indeed harmed by Agent A (at most killed by A); 3) Agent C witnesses the crime scene and walks away. The bystander problem can be considered as a collective responsibility variation.

In this talk, we propose a logical method to analyze the bystander problem: whether witnesses hold the same responsibilities as harm-enactors or not. We extend the causal utility model in [1] and turn the ethical project into a default analysis. An account of bystanders' problem based on extended model will be given. Finally, we will discuss how a group of agents share responsibilities generally (collective responsibility).

[1] Beckers, Sander, Hana Chockler, and Joseph Halpern. "A causal analysis of harm." *Advances in Neural Information Processing Systems* 35 (2022): 2365-2376.

- **Wang Ruili** 王睿里 (Peking University)

Title: The Extension of Cognition in Hybrid Collective Decision-making

Abstract: This paper focuses on the implications of the Extended Mind and Distributed cognition theories for collective decision-making, claiming that cognition is not limited to individual brains but is augmented by group interactions and the utilization of external tools. Within this framework, I argue that the collective agent systems including artificial entities such as computers, smart phones, AI algorithms can be considered as a new type of "superorganism". Moreover, collective decision-making may give rise to emergent properties—distinctive attributes that are not merely the aggregation of individual decisions but reflect the intricate dynamics of the collective as a whole. The perspective challenges us to reevaluate our traditional ontological commitments regarding the inclusion of non-living entities and the boundaries of cognition. Thus, finally, I shall highlight that In hybrid decision-making systems that integrate human cognition with artificial tools, the latter are accorded a unique role, contributing a distinct form of agency. However, this would also encounter numerous challenges, e.g., introducing novel uncertainties and ethical concerns into decision-making process due to our oversimplifying understanding of human-computer interaction.