Towards a Social Ontology of Games

1. Research plan

1.1. Current state of research in the field

Games are a pervasive aspect of human existence, manifesting in various forms across cultures and throughout history. Whereas classical philosophical sources tended to focus on the function or value of play in human life (see e.g., Aristotle, *Nicomachean Ethics*, X, 6; *Politics*, V, 4; Pascal 1669, §168; Kant 180; Rousseau 1762; Schiller 1794), works specifically centered on games started to surface from the 20th century onwards. A number of discussions have been dedicated to the definition of games (see e.g., Wittgenstein 1953; Suits 2014; Juul 2005; Tavinor 2009; Salen & Zimmerman 2003) and to the relation they have to the broader phenomenon of play (Henriot 1969; Huizinga 1955; Caillois 2001). Scholars have also attempted various taxonomies of games (e.g., Caillois 2001; Juul 2005; Karhulahti 2013) and drawn attention to the peculiarities of certain types of games, such as sports (Suits 1988; Meier 1988; Schneider 2001) or videogames (Juul 2005; Salen & Zimmerman 2003; Tavinor 2009). Games are also discussed in various philosophical subdisciplines, including ethics (Bartel 2020; Luck 2009; Consalvo 2005; Sicart 2009), aesthetics (Smuts 2005; Tavinor 2009; Rough 2018; Lantz 2023; Nguyen 2020), and philosophy of action (Suits 2014; Nguyen 2020; Hurka 2006; Ridge 2021c).

In this project, we will specifically focus on issues surrounding the ontology of games, by investigating their rule-based and social aspects. Within philosophy, these topics have been discussed in three main areas of research.

1. *Philosophy of games, philosophy of sport, and game studies.* Game scholars universally agree that rules are a central component of games in all their forms (see e.g., Huizinga 1955, Caillois 2001, Suits 2014; Juul 2005, Salen & Zimmerman 2003). While there may be more or less structured forms of *play* (e.g., one can play with a doll without following any rules or without playing any particular game), it seems that there can be no determinate *game* without any rules whatsoever (Huizinga 1955, 3-13, 52; Caillois 2001, 9-10, 27, 155; Salen & Zimmerman 2003, 293; Suits 2014, ch. 6). Where some tend to consider rules from a purely formal or logical perspective (e.g. Suits 2014; Frasca 2003; Juul 2005), others have insisted on their integration within a broader social framework. For instance, game scholars have been particularly interested in how rules can shape and communicate modes of agency (Nguyen 2020), be used as a form of rhetoric and communication (Bogost 2007), as systems embodying values (Sicart 2009; Flanagan 2013), or as a means by which games generate fictional content (Juul 2005; Robson & Meskin 2016;Tavinor 2009).

The social dimension of games has also frequently been stressed by game scholars. Huizinga (1938/1955) famously argued that games provide a means of understanding other cultural phenomena (including war, religion or laws). Caillois also insisted on the social function of games, which is to "discipline and institutionalize" several fundamental human instincts (competition, chance, simulation, vertigo) (2001, p. 55). Several game scholars have claimed that one cannot, or should not, see games as mere systems of rules, disconnected from the collective play practices in which they are embedded (see e.g., Henriot 1969; Triclot 2011; Sicart 2009; Nguyen 2019; Ridge 2020), whereas others contend that games serve certain needs or values that reflect their position within human societies (Marmor 2009; Midgley 1974; Miller 1981; Schwyzer 1969). The insistence of the social aspects of games has also been stressed in the philosophy of sport, where it has been argued that sport essentially involves institutional components (Suits 2014; Mumford 2012, 2021; McFee 2015; Redifford 1985) or social conventions (D'Agostino 1981; Russell 1999; Morgan 2015).

2. *Social ontology*. The social and rule-based aspects of games have also received significant attention in social ontology. Since games are conceived as the paradigm of practices that are "constituted" by rules, they serve as an important window into other rule-based and normative phenomena in the social world and offer a means to elucidate the nature of rules and rule-based behavior. This perspective was particularly developed through Searle's influential distinction between regulative and constitutive rules. In contrast to regulative rules, which merely regulate antecedently-existing activities (e.g. the rules of table manners regulating our ways of eating), constitutive rules create the possibility of new forms of activities (e.g. rules of chess create the very possibility of playing chess) (Searle 1964, p. 55; 1969, p. 33; also Rawls 1955). Following Searle, the idea of constitutive rules has received considerable attention in debates on social ontology (see e.g. Hindriks 2009; Guala & Hindriks 2015; Epstein 2015; Baker 2019).

However, no consensus is achieved regarding the extension of the class, nor the mode of existence of its members. Even though the topic of constitutive rules has not been neglected in social ontology, not much attention has been paid to games considered as social entities in their own right. Indeed, when games as social practices are used as examples in discussions relevant to social ontology, the focus is often on the question of agency and cooperation through the use of game-theoretic concepts (Guala 2016; Lewis 1969; Schotter 1981; Skyrms 2004).

3. *Ontology of games*. The ontology of games is an emerging field of study, dealing with various issues surrounding the nature and identity conditions of games. So far, debates in the field have been centered on the identity conditions of games. Here too, rules have been assumed to play a crucial role. At first glance, it may seem plausible to say that the identity of games is determined by their rules (Suits 2014), so that "every game *is* its rules" (Parlett 1991, p. 3). This suggestion, however, faces important counterexamples (Declos 2020; Bartel 2018; Juul 2005; Tavinor 2011; Moser 2018) Consequently, some propose that games are individuated only partly by their rules, and partly by genetic or historical factors (Lopes 2001), representational assets (Tavinor 2011), or skill sets (Bartel 2018). Other theories, focused on electronic games, part ways with a narrow understanding of rules, proposing instead to ground the identity of videogames in the algorithmic structure of their programs (Moser 2018) or their source code (Declos 2020). More importantly to our concerns, several authors have argued that the identity of games is at least in part socially determined (Ridge 2020; Nguyen 2019; Malaby 2007). On these views, the identity of games depends on certain social norms and practices.

1.2. Current state of our research

Olivier Massin (OM) has published widely in the fields of social ontology and philosophy of action. OM's work in social ontology, in particular on the nature of moral and legal norms (Massin 2016, 2017a, 2017b, 2019, forthcoming b) and on the nature of social exchanges and promises (Massin & Tieffenbach 2017; Massin & Salice forthcoming), will provide important entry points for assessing the relationships between games and rules (subproject 1) and games and institutions (subproject 2). OM's research on trying, effort and difficulty (Massin 2014b, 2017c, forthcoming a; Bermúdez & Massin 2022) will be directly relevant to subproject 3, when developing the suggestion that different types of games may be individuated by specific types of efforts. OM's research on the enjoyment of activities and emotions (Massin 2023, 2020, 2014a) is closely related to the relationship between games and play, which underpins key assumptions of the present project. Finally, OM's historical work on F. Brentano and A. Reinach (Massin 2016, forthcoming b; Massin & Mulligan 2021) will be relevant to both the general descriptive approach of this project, the study of institutional rules (subproject 1), and to the study abstract games (subproject 3).

Kathrin Koslicki (KK's) research has focused primarily on neo-Aristotelian metaphysics. In her two monographs (Koslicki 2008, 2018) she developed a contemporary defense of one of Aristotle's central innovations, the doctrine of hylomorphism. According to this doctrine, objects are not exhausted by their matter (*"hyle"*), but rather contain an

additional component, their form (*"morphē"* or *"eidos"*), which accounts for their structure, identity, and unity. Within the broader neo-Aristotelian framework, KK's work has centered on several specific sub-areas which are particularly relevant to the current project, in particular the notions of constitution and composition (Koslicki 2004, 2008, 2018); the varieties of ontological dependence (Koslicki 2008, 2018, 2012, 2013); and the metaphysics of artifacts (Koslicki 2018, 2021, 2022, 2023). In her more recent collaborative research with Olivier Massin, KK has been able to build on and significantly extend her existing work into the realm of human-produced continuants (Koslicki & Massin 2023a, 2023b, 2024a, 2024b). OM's and KK's envisaged collaboration promises to break exciting new ground by exploring interconnections between KK's work in metaphysics and the philosophy of artifacts and OM's expertise in the philosophy of law and economics, social ontology, and action theory.

Alexandre Declos (AD) is currently a postdoctoral researcher at the university of Neuchâtel. He specializes in metaphysics and in the philosophy of games. His work on the ontology of videogames (Declos 2020a, 2022, ms) and digital/virtual environments (Declos 2024; Bucchioni & Declos forthcoming) is directly connected to our project, and in particular for the issues addressed in subproject 3. AD's current research on digital artifacts carried within the FNS project currently led by OM & KK is also relevant for issues addressed in subproject 2. More generally, his general expertise in the philosophy of games is evidenced by his work on the cognitive value of games (Declos 2020), games and interactive fictions, (Declos & Anne Braun 2023), or the aesthetics of games (Declos 2022, forthcoming a, b), and by an introductory monograph dedicated to the philosophy of games (forthcoming c).

Maryam Ebrahimi Dinani (MED) is currently a postdoctoral researcher at the Collège de France, where she works as an assistant of Professor François Recanati. Her doctoral dissertation (2023) was dedicated to exploring the foundations of the social world by reconstructing an analogy between games and other rule-based social phenomena in novel terms. She has extensively addressed the question of constitutive rules and institutions in her thesis, which is very relevant for sub-projects 1 and 2. Since 2019, she is also an active member of the International Social Ontology Society (ISOS).

1.3 Detailed research plan

General description of the project. Our research project will offer a different philosophical outlook on games, by studying them from the standpoint of social ontology. We take this perspective to be novel and worthy of exploration, for two main reasons.

A first novelty of our project is that social ontology has only been marginally concerned with games. When mentioned in this field, games have primarily served as examples or analogies to elucidate certain aspects of the social world (e.g., institutional facts, collective agency and cooperation). However, specifying how the social characteristics of games contribute to their nature and identity, i.e. to the ontology of games, remains a largely underexplored topic. A systematic account of games as social entities still needs to be developed.

Secondly, we think that our perspective will help bridge areas of research that are currently disconnected. Take debates on rules, found in both the philosophy of games and social ontology: these literatures simply do not interact with each other at all. Likewise, game scholars who stress the social aspects of games seem mostly unaware of contemporary discussions in social ontology on institutions, conventions, and collective intentionality. By attempting to bridge these discussions and research areas, we hope not only to prevent "disciplinary silos", but to make a positive and cross-domain contribution to the ontology of games.

Central working hypotheses. As indicated above, our general objective is to provide a comprehensive account of games as rule-based social entities. Given our cross-domain approach, and to achieve this goal, we shall explore several core working hypotheses over the course of the project, which may be summarized as follows:

(1) We propose to differentiate the *generic* and the *specific* identity of games. There is an important but often overlooked difference between what makes an artifact or activity fall under the kind *game*, and what makes it the *specific* game that it is (e.g. chess, soccer, etc.). We intend to account for this distinction by differentiating what we may call "structural rules" and "institutional rules".

(2) We want to distinguish between rules and conventions governing games. While both rules and conventions can be seen as arbitrary in some sense, our contention is that institutional rules, unlike conventions, exhibit a form of "relative" or "indexed" necessity, in that they are necessary, once set, to the games they regulate.

(3) We submit that games are *social artifacts*, as they depend for their existence and identity on certain public norms of treatment. Correlatively, we want to explore the claim that different types of games depend on different sets of public norms.

(4) We take games as requiring a general capacity for symbolic representations. This isn't just to say that many games involve fictions, as many have already claimed, but rather, that they constitutively depend on a general capacity for make-believe, which plays a central role in explaining the social world.

(5) Lastly, we develop a contextualist ontology, which would account for the identity and persistence conditions of games in terms of social factors. We see this view as a promising approach to explain the survival of games through both diachronic rule changes and synchronic variation.

Methodology. Two general methodological considerations are relevant for our project.

(1) Descriptive approach. We will adopt a broadly descriptivist approach, which takes extant practices, beliefs, and discourses about games as both the starting point of inquiry and the target explananda. This approach should be prior to foundational or reductive analyses of the phenomena under investigation (Koslicki & Massin 2023a). Applied to our object of study, this methodology suggests that an adequate account of games should first identify common beliefs and assumptions about games, whether explicit or tacit, before attempting to systematize and explain them. Our descriptivist orientation also suggests that we should take widespread beliefs about games seriously, and that a good ontology of games ought to capture as many of these beliefs as possible (see e.g., Thomasson 2004).

(2) Shared definitions. Secondly, we shall assume that such questions as "What is a game?", "What is a rule?", etc., have correct and incorrect answers, that they are subject to rigorous scientific inquiry, and that answering such questions is essential to good scientific practice (Koslicki & Massin 2023b). The definition of games has long been seen as a paradigm example of the hopelessness of definitions in philosophy (following Wittgenstein 1953). However, the recent resurgence of descriptive approaches in philosophy (Fine 2017; Koslicki & Massin 2023a), together with the progress accomplished by refined attempts to define games (Suits 2014; Juul 2005; Tavinor 2009; Nguyen 2020) paves the way to a more optimistic take on that question. In order to carry on a meaningful debate in an area, we need shared concepts. For instance, if we are to disagree about whether and how the rules of a game can change, we need first to agree on what rules are. A lack of shared definitions also leads to data silos. For instance, calling something "rule" that is labeled as "convention" by another research group can lead to data-fragmentation and conceptual confusions.

Scope. Our research aims at exploring the nature of games as rule-based social entities. As stressed above, we consider that this perspective is both novel and more encompassing than that of existing bodies of work in related areas. To make our project feasible, however, we will have to restrict ourselves to a specific set of problems. (1) Our focus here will be on the *ontological* issues surrounding the *nature* and *identity* of games. This means that we shall not address the numerous and valuable contributions regarding the sociological, anthropological, or cultural significance of games, insofar as these are not aimed at providing an ontology of games. Likewise, our focus on rules will here be restricted to an ontological perspective, which explains why we shall not consider the vast philosophical literature on rule-following. Our interest lies in the nature of game rules and their contribution to that of games, rather than in what is required to *follow* a rule. (2) Moreover, our research project will focus on *games* rather than *play*. Play is a broader phenomenon that may exist independently of games and social reality (as evidenced, e.g., by animal play). (3) Besides, our project will not address "game theory", which is a mathematical framework used to model and analyze interactions between decision-makers in certain situations. This framework has proved popular in social ontology, where social phenomena have been seen as involving games of cooperation and competition. However, game theory does not aim to elucidate the (social) nature of games themselves; rather, it studies institutional phenomena on the model of games. Our perspective is actually opposite, since we seek to understand games by considering them in light of broader social phenomena. (4) Lastly, note that our project will address games in general, and therefore all kinds of games. That being said, we will be sensitive to the peculiarities of certain sub-types of games (e.g., videogames, tabletop role-playing games, or sports).

Our project proceeds by means of four work-packages (W1-W4), inserted within three sub-projects, whose contents are explained in more detail below. Each subproject tackles one of the three puzzles outlined in the summary of the research plan. Our research-team consists of the two PIs, KK and OM; one postdoctoral fellow (MED) and one scientific collaborator (AD), both co-supervised by KK and OM.

Project partners. We plan to invite each of our eight non-local project partners, all of whom are experts in domains that are most directly relevant to the goals of our project, for a week of in-depth collaborative work on the project, including feedback and advice on our research in progress. The visits planned are the following: Reiland and Thomasson in Year 1, Hindriks and Ridge in Year 2, Guala and Bachellerie in Year 3, Smith and Nguyen in Year 4. We detail the reasons and foci of our proposed collaborations with them below.[1]

Indrek Reiland. Reiland works on foundational questions in philosophy of language and mind, especially on linguistic and normative practices. He also holds interests in metaphysics, metaethics, and philosophy of games and sport. He has recently written about rules (2018, 2023a) and the sort of normativity characteristic of social rules and games (2023b). His ideas will be of immense value in our subproject on the notion of game rules.

Amie Thomasson. Thomasson is Daniel P. Stone Professor of Intellectual and Moral Philosophy at Dartmouth College. She works in the areas of metaphysics, philosophy of art, and philosophy of mind. Her significant research on artifacts and social and cultural objects will offer invaluable insights for our subproject on games as social artifacts, as we aim to build upon her idea that social artifacts depend on certain public norms of treatment.

Frank Hindriks. Hindriks is professor of Ethics, Social and Political Philosophy at the University of Groningen. His research concerns social groups, institutions and organizations, and the pattern of coordination and cooperation they involve. With his impressive body of work on the nature and functions of institutions and constitutive rules, he will be a significant source of insight for our subproject on games as institutions.

[1] . Despite our best efforts, the majority of our project partners unfortunately experienced technical difficulties in completing their registration on the new SNF portal. However, all of them enthusiastically accepted our invitation to participate in our project.

Michael Ridge. Ridge's areas of expertise include meta-ethics, value theory, and the philosophy of games. He has recently written about playfulness (2020), the lusory attitude (2021a), Bernard Suits' utopian thesis about games (Erspamer & Ridge 2021), and the prudential value of games (2021b). Ridge (2020) has also articulated a contextualist ontology of games, which we want to assess and to expand on in subproject 3. Given his expertise, he will be highly valuable for our project.

Francisco Guala. Guala's research areas are the philosophy of economics, the philosophy of the social sciences, and social ontology. We have engaged in research collaborations with Guala in the past, through a seminar in social ontology taught in Neuchâtel in 2023 and through the ongoing SNF project on artifacts. Given his expertise in social ontology, and in particular on issues surrounding social conventions and conventionalism, he will be a highly valuable resource for our research team to consult in order to pursue subproject 1**.**

Clément Bachellerie. Bachellerie is Lead Game Designer at Respawn Entertainment/Electronic Arts (*Apex Legends*). Before that, he worked as a Senior game designer at Sledge Hammer Games (*Call of Duty*), Ubisoft Toronto (*WatchDogs Legion*), as an associate game director in Ubisoft Nadeo (*Trackmania, Shootmania*). He has an academic background, having studied game and interactive media design at EJMIN (France) and comparative literature in Paris Sorbonne University. Given his expertise in game design and close ties with the videogaming industry, he will be a valuable collaborator to help us work out our contextualist ontology of games, which we propose to develop in connection with actual practices of gameplay, classification, and game design.

Barry Smith. Smith has achieved an impressive body of work in social ontology, formal ontology and applied ontology, which has been hugely influential for us and which we have discussed in our seminars. He co-founded Basic Formal Ontology (BFO), one of the two major ontology frameworks, and the Industrial Ontologies Foundry. His expertise will be a tremendous asset for our project, in particular for the unification and integration of our social ontology of games in the final state of the project.

C. Thi Nguyen. Nguyen's areas of research include aesthetics, social epistemology, value theory, and the philosophy of games. He has recently worked on phenomena such as gamification, trust, and value capture. Nguyen has also written extensively about games, which he sees as a novel artform operating in the medium of agency. His *Games: Agency as Art* (2020) was awarded the American Philosophical Associations 2021 Book Prize. His expertise in the philosophy of games will be extremely valuable to our project, specifically to develop our general theory of games as social artifacts, which echoes Nguyen's "prescriptive ontology" and claim that games are deeply embedded social entities (Nguyen 2018).

Subproject 1. Games and the Puzzle of Rules

General objective of the subproject: Our first subproject on game rules, led by OM and KK, with the assistance of MED, takes as its starting point the central question of how best to delineate the rules of a game and the correlative concept of "constitutive" rules. Despite its central role in all accounts of games, the notion of a rule is neither transparent nor monolithic. Likewise, the notion of constitutive rules has proved both elusive and controversial. In this subproject, we will start by offering a survey of the literature, in order to clarify these debates. We will then propose that there is a central yet neglected distinction between *structural* and *institutional* rules, that is, between rules that determine the *generic* versus the *specific* identity of games, respectively. Lastly, we will propose a novel way to distinguish between institutional rules and the conventions of a game.

A) Game rules: an elusive notion (Year 1)

While the claim that games are rule-structured entities and practices is universally accepted by game scholars, there are a number of disagreements regarding what the notion of a "rule" refers to exactly in the context of games, and regarding the unity of that category.

Extension. A first issue regards the range of application of the notion of game rules. As long as we think of the latter as explicit instructions about how a game ought to be played (e.g. those found in official regulations or game manuals) the notion seems clear enough. But one may wonder whether it extends to other things. For instance, should it apply to *affordances*, i.e. possibilities of actions in an environment that aren't prescribed or proscribed (Tavinor 2009)? Must we consider as rules the *tacit agreements* normally observed between players, such as the various principles surrounding fairplay, etiquette, or sportsmanship (Salen & Zimmerman 2003; Consalvo 2007; D'Agostino 1981; Kretchmar 2001; Fraleigh 2003)?

Types of rules. Another complication is that game rules are not as monolithic a phenomenon as they may initially seem to be. To begin with, many have pointed out that rules typically take very different forms in traditional games and videogames (see e.g. Juul 2005; Tavinor 2009; DeLeon 2013). Several game scholars also argue that there are different *types* of rules in games. In the philosophy of sport, the distinction between rules and conventions has been the focus of considerable scrutiny, where the term "convention" is used to refer to all the *unwritten* norms/rules of a game (D'Agostino, 1981; for a similar point in the philosophy of law, see Dworkin 1986; Hart 1961). Others distinguish *constitutive rules*, which stipulate how to play a game, from *rules of skill* (or strategies), which indicate how to play it *well* (Suits 2014; Juul 2005; Salen & Zimmerman 2003; Rawls, 1955; Schauer, 1991). In addition, many game scholars have proposed taxonomies of rules. For instance, Salen & Zimmerman (2003) differentiate *constitutive* rules (the underlying mathematical or logical structure of games), *operational* rules (the written-out and manifest rules of the game) and *implicit* rules (unwritten principles of etiquette and sportsmanship). The board game scholar David Parlett (2005) suggests that there are 10 types of rules. Game rules, then, are a messy category, covering many different phenomena.

Given these disputes and idiosyncratic developments, it is necessary to clarify what the notion of "rule" refers to within games and to propose a clear preliminary taxonomy of rules, in which strategies, etiquette principles, and affordances receive a clear status. This preliminary step is required if we are to make sense of the claim that games are rule-based social entities.

B) A neglected distinction: institutional and structural rules (Year 2)

An important second component of subproject 1 focuses on a neglected distinction between rules that determine the boundaries of a game as a *game*, and rules that determine the boundaries of a game as *the specific game* it is (see Ebrahimi Dinani 2023; for a parallel distinction regarding artifacts in general, see Koslicki & Massin forthcoming a).

Constitutive rules or, as we will call them, "institutional rules", pertain to aspects of games that are "instituted", i.e., laid down, posited, or enacted. These rules make it possible to play a specific game, but they do not inform us about the general nature of games, i.e., about what makes it that something is *a game* (belongs to the kind *game*). The institutional rules of chess, for example, do not provide a clue as to the nature of the practice of which they are the rules. One could comply with the same set of rules and be engaging in a rite rather than in a game of chess (Schwyzer 1969, pp. 463-4. See also Marmor 2009). Our hypothesis is that there are structural aspects common to all games, which make it the case that a game is a *game*, rather than a war, or a rite —for instance, the idea that all games must involve role-taking, temporal boundaries, the presence of rules, a distinction between participants and non-participants, or, as pointed out by Bernard Suits (2014), an organized and deliberate form of inefficiency. These "structural" rules, as we will call them, offer something genuinely common to all games (*pace* Wittgenstein 1953).

Our objective here is to further explore the distinction between institutional rules and structural rules. Unlike structural rules, institutional rules possess an element of arbitrariness in their content. For example, instead of moving in a L-shape, the chess knight could have been initially defined to move in an N-shape. Now, even if one were to argue that modifying the knight's movement would result in a different *game* altogether, no one would see that as the transformation of chess into a different type of *practice*. On the contrary, structural rules cannot be modified without altering the nature of the practice they

pertain to. While certain rules of the game of chess did and might change over time, one fundamental aspect remains unchanged: the generic requirement for an end position, namely, the winning position. Without this specification, chess could no longer be considered a competitive game. Thus, the distinction lies between those aspects of institutional kinds that are posited (or laid down), and those that are rather presupposed as essential components of the kind. One of the main virtues of this distinction is that it offers an answer regarding the *generic* identity of games (i.e. of what makes them games rather than other types of practices), even though it does not provide any clue as to their *specific* identity as such or such games (see subproject 3).

The distinction we want to draw between institutional and structural rules, however, raises a challenge. Seeing structural rules as essential to games resonates with the doctrine of essentialism, which has a bad reputation when it comes to social practices. Essentialist approaches in social ontology have been criticized for oversimplifying the complexities and overlooking the role of social processes in shaping categories. A central component of this subproject is to explore how to make sense of the hypothesis that structural rules pertain to the essence of games. For this, we draw on Reinach work's in social ontology, whose importance has recently been emphasized (Reinach 1983; Koslicki & Massin 2023a; Massin 2017b, forthcoming b; Massin & Salice forthcoming; Ebrahimi Dinani 2023). One of our main tasks is to explore the advantages and disadvantages of adopting an essentialist stance regarding games, in line with recent work on essentialism in metaphysics (Koslicki 2018, 2022).

C) Institutional rules and conventions (Year 3)

Games have often been regarded as an example of conventional practices. Searle, for example, sharply distinguishes between constitutive rules and conventions. According to Searle, "It is a [constitutive] rule of chess that we win the game by checkmating the king. It is a *convention* of chess that the king is larger than a pawn" (1995, p. 28.) Conventions are widely held to have an arbitrary aspect: Taking regularities to be common ways of doing things, a regularity R is arbitrary just in case there is an alternative to R, say R', that could have been more or less as good as R itself. (Lewis 1969, p. 70; Marmor 2009, pp. 8-10; Millikan 2005, pp. 7-8). In the literature on constitutive rules, the intuitive distinction between institutional rules of a game like chess and the convention that such a piece of wood serves as a pawn is in turn explained in terms of the notion of arbitrariness. While conventions imply arbitrariness (we can use any object as a pawn as long as we agree on the same one), institutional rules are not arbitrary in that sense (not every agreed-upon move can be considered as checkmating).

The distinction between institutional rules and conventions is intuitive enough when we consider rules determining the permissible moves vs. rules regarding the shape of the pieces in chess. On the other hand, games are held to be conventional practices in the sense that they are constituted by a set of rules that are in force as a matter of convention (Searle 1964; García-Carpintero 2019; Guala, 2016; Millikan 2005). The question is then the following: how can we make sense of the intuitive difference between institutional rules of games and conventions, while contending that institutional rules are themselves conventional?

One hypothesis worth exploring, outlined in Ebrahimi Dinani (2023), is that institutional rules, unlike conventions, have a form of "relative" or "indexed" necessity. The rules of a game, just like the conventions that surround it, could have been otherwise. However, there is the following difference: Once the rules of a game have been established at a certain time *t* in context *c* (e.g. chess in its current FIDE version), they seem necessary at *t* in *c* for the identity of that game. The current FIDE version of chess is defined by its rules and couldn't exist as *that* game without these rules. By contrast, the conventions accompanying a game, once established at *t* in *c*, are not necessary to that game. We could play the current FIDE version of chess using jelly beans of different colors as long as we agreed on the roles assigned to each. Institutional rules matter for the identity of games, conventions simply do not.

This phenomenon of relative necessity is compatible with the view that games are conventional practices: their institutional rules play a role for their being the specific games they are, while also possessing the required arbitrariness characteristic of conventions. However, this view raises several issues. 1) One, familiar within debates around modal conventionalism, is to determine how something contingent can be a source of necessity, albeit a relative one. 2) Another, explored in more detail in sub-project 3, is whether this hypothesis about the necessity of institutional rules entails accepting a Platonist view of games (where games cannot, strictly speaking, change) or formalism (where cheating is logically impossible), and how problematic this would be. 3) A third issue is to see how this hypothesis holds up against views, particularly prominent in the philosophy of sports, which insist that conventions are an essential normative component of games. (D'Agostino 1981; Morgan 2012, 2015). We want to examine whether and to what extent the hypothesis of relative necessity could face these challenges.

Overall, then, the general picture that would emerge from our hypotheses is that of games as practices governed by three kinds of rules: strictly necessary structural rules, contextually necessary institutional rules, and contingent conventional rules.

Work-package 1 (W1) will be carried out during Years 1-3 of the project and will be led by OM and KK, with the assistance of MED, though aspects of W2 will also involve other team-members. W1 focuses on the main research questions of subproject 1 as outlined above:

Year 1: Synthesis on varieties of rules. (Project-partner visit: Indrek Reiland)
Year 2: Distinction between structural and institutional rules.
Year 3: Distinction between game rules and conventions. (Project-partner visit: Francesco Guala)

Dissemination of W1's research results concerning (1)-(3):
- Paper on varieties of game rules. (AD & MED)
- Paper on institutional rules and structural rules. (OM, KK, & MED)
- Paper on game essentialism and the Reinachian foundations of social practices (OM & MED).
- Paper on game conventions and game conventionalism (KK & MED)
- Paper on indexed necessity and game formalism (AD & MED)
- Annual conferences organized by team-members.
- Special issue of *Metaphysics*, on the ontology of game rules, co-edited by KK, OM, & MED.
- Integration of W1's research result into W4's capstone projects.

Subproject 2. The Nature Problem: Games, artifacts, and institutions

Central goal of the subproject: Our second subproject, led by KK, with the help of MED and AD, aims at clarifying the social nature of games. Two broad conceptions of games can be identified in the literature. The first, dominant in game studies, aesthetics, and the philosophy of games, sees games as *artifacts*. The second, more common in social ontology and in the philosophy of sport, takes them to be *institutional* phenomena. It is not entirely clear how these views should be developed precisely, where they conflict, and how they should be reconciled. To make progress on these matters, we will explore several core hypotheses. The first is that making sense of games as artifacts requires seeing them as *social* artifacts, which depend for their existence on certain public norms of treatment. The second is that games qualify as institutional phenomena, in that they rely on the *capacity* for collective intentionality. Lastly, we shall examine the claim that games are multi-dependent entities, which depend on material objects, rules, and collective attitudes.

A. Games as artifacts (Year 1)

Artifacts are standardly defined as objects intentionally produced to accomplish some given purpose (Hilpinen 2011; Koslicki & Massin, forthcoming a, b). Games may seem to satisfy that definition. Boardgames, for example, consist of material objects (e.g., boards, pawns, cards, etc.) intentionally produced for a certain purpose (in most cases, entertainment). The same applies to videogames, which are frequently commercialized in a physical form such as game cartridges or CD-ROMS. It is

no surprise, then, that the artifactual nature of games has often been stressed by game scholars (see e.g., Juul 2005; Sotamaa 2013; Salen & Zimmerman 2003; Tavinor 2009; Nguyen 2019; Malaby 2007). This suggestion, however, raises a number of issues, that remain mostly unexplored in the literature as of now.

Games & material artifacts. Many games centrally involve material artifacts. One couldn't adequately characterize *Dungeons & Dragons* without referring to gamebooks, character sheets, or dice. Nor could one play tennis without rackets, balls, and nets. However, several reasons make clear that games cannot be *identified* nor reduced to such artifacts. First, chessboards, dice, tennis rackets, etc. aren't *games* in themselves, but merely game *instruments* or *components*, which seem to receive their status only within the context of certain social norms and practices. Second, the same (types of) material artifacts could be used in a plethora of distinct games. For instance, standard 52-cards decks can be used to play many distinct card games (e.g. bridge, poker, blackjack). Third, the presence of a material component is not essential to games, since some of them do without any material or digital prop (e.g., 'blindfold' chess, or certain children's games of pretense). Lastly, the tendency to reify games is disputable. While such reification might be acceptable for toys, it isn't obvious that games should systematically be understood as *objects*. This reflects a polysemy in the term "game", which may equally denote material objects (e.g. the box of *Gloomhaven* on the shelf) and temporally extended events or activities (a particular game of *Gloomhaven*). In brief, games can be both objects and practices (Arjoranta 2019), or as Juul (2005) puts it, "artifacts and activities".

Games as social artifacts. The preceding remarks suggest that games are not merely or essentially material artifacts. However, this neither means nor entails that games aren't artifactual. The notion of an artifact, indeed, need not reduce to that of a *material* artifact. Game theorists have frequently recognized this point, by seeing games, alongside with other types of artworks, as "cultural" artifacts (Sotamaa 2013; Salen & Zimmerman 2003; Tavinor 2009) or "social" artifacts (Nguyen 2019, 2020; Malaby 2007). While this insistence on the inextricable connection between the artifactual and social aspects of games is suggestive, this perspective also raises a number of issues.

First, it isn't clear what the notion of "social" artifact comes to exactly, and how social artifacts are supposed to differ from other types of artifacts (e.g. technical artifacts) and social entities in general. Seeing games as (social) artifacts raises another set of challenges. In metaphysics and social ontology, it is commonplace to characterize artifacts and artifactual kinds in terms of the intentions of their makers, designers, or producers (see e.g. Baker, 2007; Evnine 2016; Thomasson 2003, 2007; Juvshik 2022). Though predominant, this approach faces a number of issues (see Koslicki 2018, ch.8; 2023), which have pushed some to part way with maker intentions, by defending a user-based (Preston 2012) or a capacity-based (Koslicki & Massin forthcoming a, b) approach of artifacts. It is remarkable that games, so often considered as artifactual entities, have never been considered in light of these discussions. If *game* is an artifactual kind, one must explain what differentiates it from other such kinds, what is the function or range of functions associated with it (if any), and what it takes for someone to create an instance of that kind. If games are artifacts, one must in addition say whether they essentially depend for their identity on auctorial intentions, user practices, or on certain intrinsic capacities and affordances. All of these questions are crucial if we are to make sense of games as artifacts. Yet, they have virtually never been addressed in any detail in the philosophy of games, which has tended to ignore the literature on artifacts in metaphysics and social ontology.

We intend to take on these challenges by exploring the following core hypotheses.

Our first working hypothesis, which will draw on recent works by Amie Thomasson (2014) and Asya Passinsky (2021, 2023), is that games are social artifacts as they depend for their existence and identity not only on (institutional and structural) rules, but also on certain public norms of treatment. We suggest that one cannot make sense of games as artifactual kinds and entities without considering what Thomasson calls the "receptive" and "normative" features of artifacts, which correspond to "how the object created is to be regarded, used, treated, or behaved in regard to (and by whom, in what context)" (2014: 47). As an example, uniforms cannot be dissociated from certain normative features, regarding when, where, and by whom

they should be worn, how their wearers should behave, etc. We believe that games, similarly, should be understood in light of such normative and receptive features. One cannot play games anywhere, anytime, with anybody, or in whatever fashion. Games are meant to be *regarded* and *treated* a certain way, e.g. as having limited or negotiable consequences (Juul 2005), or as commanding the adoption of a specific type of "lusory" attitude (Suits 2014). While this study of normative and receptive features ought to be developed in more detail, we see it as a promising avenue for establishing that games are irreducibly social artifacts.

A second hypothesis, which builds up on the first, is that different types of games will be associated with different receptive and normative features. For instance, Nguyen (2019) argues that the categories of "party games", "heavy strategy games", and "community evolution games" involve different sets of prescriptions. For instance, it would be wrong to approach a party game in an overly professional and serious manner, just as it would be inadequate to engage with an evolution community game in isolation from the broader gaming community associated with it. This is to say that all games aren't designed to be treated in the same way and that they are associated with different sets of norms and expectations. In our view, such norms do not simply relate to the issue of knowing how particular games should be played. Rather, they participate in the very nature of these types of games, alongside their structural and institutional rules. We would like to expand on Nguyen's "prescriptive ontology" to explore the way various normative and receptive features structure and shape games and subtypes of games.

B) Games as institutions (Year 2)

Many have stressed the social nature of games in another way, by seeing them as *institutions*. The term "social institution" is typically used to refer to complex large-scale, organized and enduring social structures created and maintained to serve the various needs of society (e.g. universities, business corporations, etc.). To be sure, a game may exist without presupposing any institutions in that sense (e.g. improvised games, children's games, etc.), even though it may be argued that institutions are essential to sub-classes of games, such as sports (Suits 1988, p. 2; Mumford 2012).

However, in a weaker sense, institutions are characterized as any system of collectively-accepted constitutive rules (Searle 2005, p. 21). Searle famously argued that facts about games, money, or private property are institutional facts, "brought into existence by constitutive rules" (2010, p. 10). His explanation of institutional phenomena is partly based on his seminal distinction between non-status-functions and status-functions: contrary to the functions assigned to artifacts such as chairs and screwdrivers, the functions assigned to institutional statuses are not based on their intrinsic physical features but on their being collectively recognized to have the status in question.

Following Searle's influential distinction, social ontologists have formulated numerous theories concerning the nature and functioning of institutional phenomena, by emphasizing the role of collective attitudes in the creation and maintenance of social institutions (see e.g. Tuomela 2002, 2007; Ludwig 2017). However, it may be objected that Searle's explanation of institutional facts relies too heavily on the role of collective attitudes. After all, one could argue that it is not *in virtue of* collective acceptance that Article 6.11 of the FIDE rules of chess is in force, no more than it is *in virtue of* collective acceptance that all green-inked papers published by the Bureau of Engraving and Printing are US dollars (see e.g., Guala 2016; Epstein 2015; Khalidi 2016). But then, how can we explain the distinction between institutional and non-institutional facts?

We hypothesize that while collective attitudes play a role in the maintenance of rules and conventions, they need not come into an explanation of institutional facts. Based on Epstein (2015), we distinguish between the metaphysical explanation of institutional facts (grounding inquiry) and the investigation into the role of collective intentionality (anchoring inquiry). The *anchoring* inquiry would provide an answer to the question of that in virtue of which rules of games are established (e.g. that in virtue of which the Article 6.11 of FIDE is in force). By contrast, the *grounding* inquiry provides an answer to the question of what it takes for a certain institutional fact to be the case (e.g. that in virtue of which a certain wooden piece counts as a chess

bishop). From this perspective, the fact that this piece of wood is initially put in the square c1 and moves diagonally metaphysically explains the fact that it assumes the role/status of a bishop. Collective intentionality isn't involved at this stage, but only at the level of anchoring.

Second, we hypothesize that what is needed to account for different institutional roles/statuses in games is the capacity for representing some (type of) entity X (e.g., a certain piece of wood put in the square c1) as having the status Y (e.g., a bishop). We call this the capacity for "symbolic representations"—the capacity to think of one object at two levels at once. Drawing on Tomasello (2014), we distinguish between capacities for second-personal relationships, involving capacities for joint action with a partner, on the one hand, and capacities for collective action within a community, based on a prior understanding of cultural conventions, norms, and institutional reality, on the other hand. We consider the capacity for symbolic representations to be the hallmark of the latter capacities. While brute social facts (e.g. individuals walking together) only require capacities for second-personal relationships, institutional facts (e.g. individuals playing chess) require capacities for engaging in "symbolic representations". We contend that games and, by extension, all rule-based social phenomena require such symbolic representations for their possibility.

One implication of our approach is that it offers an explanation of why games necessitate the capacity for make-believe (Huizinga 1955; Caillois 2001; Tavinor 2009; Walton 1990; van de Mosselaer 2020). In our perspective, even children's simple games of make-believe require the capacity to represent a person or object as playing a role in a symbolic manner. Moreover, it follows that, as such, games can only exist against the background of human societies, where individuals are capable of taking something as something else at a higher level. This explains in what sense games can be seen as "social" artifacts. Although non-human animals can play "full stop" (Ridge 2021c), they cannot play *games*, because they do not possess the capacity for symbolic representations.

C) Games and ontological dependence (Year 3)

Artifacts and institutions are usually seen as dependent entities, which could not exist in the absence of human activity. After having examined the artifactual and institutional features of games, we want to clarify in what sense exactly games are ontologically dependent entities. In recent metaphysics, philosophers have introduced various notions to explain the non-causal, metaphysical, dependence at play between phenomena at lower and higher levels: constitution, grounding, supervenience, determination, multiple realization, and so on. (see e.g. Baker 2000; Doepke 1982; Koslicki 2004, 2008, 2012, 2013; Schaffer 2009; Kincaid 1998). Regarding games, we aim to investigate three cases of dependence relations: first, one should explain the ontological dependence relation between specific games and their material basis; second, that between a game's rules and the in-game statuses or roles; third, the relation between collective intentionality and games. In each of these cases, it isn't obvious how this dependence claim ought to be technically expressed, nor what properties the relevant dependence relation should possess (e.g., is it immediate or mediate, constant or historical, rigid or generic?). To explore these issues, we will delve into the literature on ontological dependence, in the hope of clarifying the nature of games as multi-dependent artifacts.

Work-package 2 (W2) will be led by KK with the help of MED and AD; other team-members will be involved in several aspects of W2. W2 will focus on the three research questions just outlined:

Year 1: Games as artefacts. (Project-partner visit: A. Thomasson)
Year 2: Games as institutions. (Project-partner visit: F. Hindriks)
Year 3: Games and ontological dependence.

Dissemination of W2's research results concerning (1)-(3):
- Paper on games as social artifacts (KK, OM, & AD)
- Paper on game roles and grounding. (KK & MED)
- Paper on games and symbolic representations. (KK, OM, & MED)
- Paper on games as multi-dependent social kinds. (KK & AD)
- Annual conferences organized by team-members.
- Special issue of *Journal of Social Ontology*, on games as social kinds, co-edited by KK & OM.
- Integration of W2's research result into W4's capstone projects.

Subproject 3. The Identity Problem: Games and change

General objective of the subproject: Our third subproject, led by OM with the assistance of AD, investigates the identity conditions of games. What makes it the case that two artifacts or activities are (instances of) the same game? What changes, if any, can a game survive? What is at stake here is the *specific* identity of games (what makes particular games the games they are), rather than their *generic* identity (what makes them *games* rather than something else), which we explore in sub-project 1. This problem is typically approached in the literature through the phenomenon of rule-change. If one maintains that games may survive at least some changes of institutional rules, as seems plausible, then rules cannot be the only thing that matters for their identity. First, we want to survey and map out the different possible ways to address these concerns surrounding the identity and persistence conditions of games, so as to offer a reference point for further research on this topic. Second, we want to elaborate on "contextualist" views which maintain that the identity and persistence conditions of games are determined relative to social practices. Third, we suggest that contextualism should be developed by paying closer attention to particular norms found in certain subtypes or families of games.

Games and the puzzle of change. According to the hypothesis explored in subproject 1, games cannot change their *structural* rules while remaining games. This, however, is compatible with the view that games can survive at least some changes of their *institutional* rules (see e.g., Williamson 1996; Reiland 2018; Irvin 2022; Lopes 2001). For instance, soccer presumably did not stop existing in 2020 when FIFA allowed 5 player-substitutions over the course of a single game, instead of the previous 3. On the contrary, we wouldn't think that soccer would remain the same game if FIFA allowed players to score with their hands. Likewise, a videogame patch introducing drastic changes of rules would in most cases be perceived as the replacement of one work by another. These observations give rise to a puzzle. If games can survive at least some changes of rules, it means that rules alone cannot fully determine their identity as specific games. But then, what does? In addition, what kinds of changes can games survive?

One should note that the problem here is twofold. (1) In its *diachronic* version, the puzzle is to determine whether and how one and the same game type can be associated with distinct rule-sets R and R^* at two different times t and t'. (2) In its *synchronic* version, the puzzle is whether and how the same game can be associated with distinct rule-sets R and R^* at one and the same time. For instance, there are different versions of soccer that do not follow exactly the same rules, but we still ordinarily regard them as versions of the same game.

A) Exploring the logical space (Year 1)

Answering this twofold puzzle is crucial if we are to elucidate the nature of games and understand whether and how social parameters play a part in their identity. There currently exists no comprehensive survey of these discussions and the logical space available. Our first objective will therefore be to map out the various possibilities opened here, so as to offer a reference point for further research on this topic. We contend that extant and possible views about the identity of games could be usefully classified into the following families (Declos ms).

A) *Formalism/Platonism*. A first possibility would be to claim that games are strictly and solely defined by their rule-sets and, therefore, to reject the ordinary assumption that games can survive any change of rules. This view has traditionally been associated with formalism (Suits 2014), broadly understood as the claim that "the essential nature of a game is its rule-set" (Nguyen 2017, p. 9; see also Morgan 1995, p. 50). This sits well with a form of a Platonism about games, according to which games would be *abstract types* consisting of determinate sets of rules (for a discussion, see e.g. Parlett 1991; Declos 2020; Moser 2018; Juul 2005; Salen & Zimmerman 2003; Ridge 2020). Such Platonism has precedents in the ontology of art (e.g. Wollheim 1980; Wolterstorff 1980; Currie 1988; Kivy 1993; Dodd 2000) and might therefore seem attractive to account for the identity of games as well.

B) *Historical/intentional accounts*. If we are to reject Platonism, as most game scholars want to do, one possibility would be to argue that the identity of games is determined by their rules *and* certain historical/genetic parameters (see e.g., Lopes 2001; Williamson 1996; Moser 2018). On this type of view, the rule changes introduced by FIDE are seen as identity-preserving, insofar as there is a relevant historical or genetic connection between the games called "chess" before and after these modifications. Likewise, the variants of a same game could be accounted for by reference to a common ancestor or to auctorial sanctions. This type of view, which has been used to account for other phenomena (e.g., artworks, biological species), ought to be explored in more detail.

C) *Abstract artifacts*. Another option, to our knowledge largely unexplored, would be to see games as "abstract artifacts". On a traditional (Platonist) picture, abstract entities are taken to be eternal and immutable, hence uncreated. However, a number of philosophers have recently argued that there are abstract entities which do not fit this model. These entities, they maintain, count as abstract, in that they are immaterial, but nevertheless remain *artifactual*, in that they are intentionally created by human beings and are, as such, noneternal, susceptible to change, and endowed with temporal boundaries. This type of view, which echoes Reinach's concept of objects that exist in time but not in space (1983), has recently been used to account for fictional characters (Thomasson 1998), repeatable artworks (Mag Uidhir 2013), establishments (Korman 2020), or software (Irmak, 2012). It might be adapted, *mutadis mutandis*, to games (Smith 2008).

D) *Front-end accounts*. Some game scholars have argued that rules aren't sufficient to ground the identity of games, as the latter also depends on their "front-end" features. Thus, Tavinor (2011) and Moser (2018) contend that art, character, level, and environment design matter to the identity of videogames. Some argue that the identity of games also depends on how players experience the rules (Salen & Zimmerman 2003) or on the type of skills required in order to play them (Bartel 2018). All these views, which shift the attention to the "dynamic" and "aesthetic" aspects of games (Hunicke, LeBlanc, & Zubek 2004), are in a good position to explain why games sharing the very same formal structure might still count as different games in virtue of some other (e.g., representational, narrative, or experiential) properties.

E) *Contextualism*. A last family of views, which we may broadly call "contextualist" accounts, consider that the identity and persistence conditions of games cannot be decided abstractly, independently of the gaming practices, conventions, and norms in which they are embedded (Salen & Zimmerman 2003; Malaby 2007; Nguyen 2019; Irvin 2022; D'Agostino 1981; Russell 1999). The most developed version of contextualism about games that we know of has been recently developed by Michael Ridge (2020). Ridge differentiates games understood as Platonic abstract entities (that he calls "games_{AE}") from games seen as historically embedded social practices (or "games_{sp}"). As he argues, although no game_{AE} can survive any kind of rule change,

this isn't so for a game$_{sp}$. A game$_{sp}$, just like a social practice, may evolve over time without losing its identity, or contain different variants (or sub-practices) at some given time. This is so because one game$_{sp}$ can be comprised of different games$_{AE}$ at one given moment or at different times. As such, we could reconcile the claims that games are strictly individuated by their rules (we speak in that case of games$_{AE}$) *and* maintain that games survive some rule changes (we speak in that case of games$_{sp}$). Another merit of this view is its ability to hold together the view that institutional rules are necessary at the level of games$_{AE}$, while being susceptible to change at the level of games$_{sp}$. On this type of account, the criteria used to adjudicate whether two games$_{AE}$ are the same game$_{sp}$ will be specified *contextually*, on a case-by-case basis: the identity conditions of chess, say, won't be the same as those of soccer. Generically, there will be sameness of game$_{sp}$ when "those taking part in a later stage of the social practice take themselves to be bound, ceteris paribus, to respect precedents and values (implicit or otherwise) associated with an earlier stage of that practice" (2020, p. 8840).

B) Assessing and developing contextualism (Year 2)

We take contextualist accounts to be on the right track, as they partly ground the identity of games on social phenomena, norms, and practices, in line with our general contention that games are irreducibly social entities. However, Ridge's version of contextualism faces several significant challenges (Declos, ms). (1) It has a hard time making sense of game prototypes. (2) It doesn't reflect common sense intuitions as to how many games are in existence, as it must count as instances of the same game$_{sp}$ works that we would intuitively want to differentiate (e.g. videogames belonging to the same franchise). (3) This account introduces ineliminable vagueness in the ontology of games, as there may be cases of profound disagreements as to whether a game$_{sp}$ survives a certain change. (4) Ridge's view is also too liberal: by seeing a continuity of practices, values, precedents as *sufficient* to the identity of games$_{sp}$, his view counts as "same game" practices that are intuitively too different to be seen as such. (5) Lastly, Ridge's view faces a transitivity worry (2020, p 8842), which can only be solved if one accepts that the very same token actions can constitute a plurality of distinct games. This claim, besides its counterintuitive character, leads to a strange form of skepticism, according to which we never know how many nor which games$_{sp}$ we are playing exactly.

Despite these worries, we think that contextualism is a promising view which deserves further exploration. Our goal will be to formulate a version of contextualism that doesn't succumb to the previous concerns. In order to do so, we will make the assumption that the ontology of games, if it is to make any progress, should not be approached in isolation from closely related debates in other areas of research. For instance, the discussions in aesthetics surrounding contextualism (understood as the view that the identity of artworks depends on extrinsic and sociohistorical parameters) are clearly relevant here, but have never been invoked in the discussions on the identity of games. The same goes for the debates in ontology of art regarding the conditions under which different works count as *versions* or *variants* of one another (see e.g. Davies 2010, 2012; Gover 2015; Mag Uidhir 2013). Another locus of interest could be empirical. To assess what the identity of games involves, we need to see how game designers actually define the identity of the games they work on, when and why players think that the game has been defaced, how copyright disputes are resolved, etc. Overall, then, we submit that contextualism must be developed in connection with this broader set of debates, following a descriptivist approach that takes into account the actual beliefs and practices surrounding the identity of games.

C) Contextualism and game genres (Year 3)

On a strict contextualist view, the identity of games is specified on a case-by-case basis, with reference to the social norms and practices surrounding each particular game. We contend that this claim is compatible not only with our contention that there are structural rules common to all games, but also with the view that different norms and principles matter to the identity of certain *species* or *families* of games. We propose that contextualism can be developed by showing how the norms associated with different types of games matter to their identity. Indeed, we hypothesize that the identity and persistence conditions of games are sensitive to the types of games under consideration.

Some games, such as sports, might essentially involve material elements and specific physical aptitudes. This is why there is no such thing as 'blindfold soccer' or why videogame soccer is *not* an instance of soccer. Certain families of game might be individuated by the type of skills they require (Bartel 2018), which could for instance predominantly be "kinesthetic" or "cognitive" (Karhulahti 2013). Others might involve specific types of efforts or difficulties. Others still might be defined by the type of experience that they should produce – e.g. party games and "stupid" games should allow for comical failure (Nguyen 2020). In other cases, such as with MMORPGS, collectible cards games, or "Alternate Reality Games", the identity of the game will be specifiable only in relation to a set of community practices, involving emergent strategies, shifts in the "metagame", discussion forums, etc. (Nguyen 2019). We also hypothesize that even very specific subtypes of games are associated with certain identity-defining norms. For instance, "Souls-like" videogames essentially involve a high level of difficulty, "Metroidvanias" must involve maps that can be explored in non-linear fashions, etc. Although there is much room for exploration and disagreement on which features are central to different types of games, our general suggestion is that these features serve not only taxonomic purposes but also carry ontological significance: these different norms and guiding principles determine what certain games or types of games fundamentally are, and the type of changes they may survive.

Work-package 3 (W3) will be led by OM with the help of AD; other team-members will be involved in several aspects of W3. W3 will focus on the three research questions just outlined:

Year 1: A survey of the logical space regarding the identity conditions of games.
Year 2: The development of a novel contextualist ontology of games (Project-partner visit: M. Ridge)
Year 3: A study of the identity conditions of specific kinds of games (Project-partner visit: C. Bachellerie)

Dissemination of W3's research results concerning (1)-(3):

- Survey paper on the ontology of games (OM & AD).
- Paper on games and the ontology of art (KK, AD)
- Paper on the persistence of gaming social practices (OM & MED)
- Paper on game variants (MED & AD).
- Paper on game-specific identity criteria (OM, AD, & MED)
- Annual conferences organized by team-members.
- Special issue of *Metaphysics*, on the metaphysics of games, co-edited by KK, OM, & AD.
- Integration of W3's research result into W4's capstone projects.

Work-package 4 (W4) pulls together the results of W1, W2, and W3 achieved during Years 1-3 by means of several capstone projects to be completed during the final year of our project (Year 4). W4 will be led collectively by all team members. W4's main research goals and outputs are as follows:

- Interdisciplinary capstone conference on the social nature of games.
- Finalization of our account of games as rule-based social entities. (Project-partner visits: Smith, Nguyen)
- Volume co-edited by KK & OM, tentatively entitled *Games and Social Ontology,* to be submitted to a reputable academic press.
- Paper defending a unified account of games as social entities (KK, OM, AD & MED).
- Paper on the ontology of gaming practices (AD & MED).
- Single- or co-authored publications by other team-members.

1.4. Schedule and milestones

The work-flow of our project can thus be represented as follows:

	YEAR 1	YEAR 2	YEAR 3	YEAR 4
RESEARCH FOCI	**W1: The Puzzle of Rules**			
	Varieties of rules	**Structural & institutional rules**	**Rules and conventions**	

<table>
<tr><td rowspan="8"></td><td colspan="3">W2: The Nature Problem</td><td rowspan="3">W4
A unified theory of games as rule-governed social entities</td></tr>
<tr><td>Games and artifacts</td><td>Games and institutions</td><td>Games and ontological dependence</td></tr>
<tr><td colspan="3">W3: The Identity Problem</td></tr>
<tr><td>Exploring the logical space</td><td>Developing contextualism</td><td>Contextualism & game genres</td></tr>
<tr><td colspan="4">Weekly research events</td></tr>
<tr><td>Reiland
Thomasson</td><td>Hindriks
Ridge</td><td>Guala
Bachellerie</td><td>Smith
Nguyen</td></tr>
<tr><td colspan="3">Annual Conferences</td><td>Capstone Conference</td></tr>
<tr><td rowspan="3">OUTPUTS</td><td colspan="3">Special issues of Metaphysics / Journal of Social ontology</td><td>Edited Volume</td></tr>
<tr><td colspan="4">Articles</td></tr>
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</table>

Throughout the project, weekly research events, such as writing seminars as well as the Institute's colloquium series, will create regular opportunities for exchange among team-members, project-partners, and other affiliated researchers. The project will also have a dedicated website, maintained by the postdoc and scientific collaborator, through which research results will be shared with interested parties.

1.5. Relevance and impact

This project will have a significant impact within the philosophy of games, by defending a novel account of games as rule-based social entities, which moves away from both formalist accounts and the prevailing use of games as mere analogies within social ontology. Our research promises to yield important new insights into a wide range of phenomena that may otherwise appear disconnected, including artifacts, institutions, conventions, and rule-based practices. The project's output will take the forms mentioned above in connection with (W1)-(W4): four organized conferences; an edited volume to be submitted to a reputable academic press; a significant number of coauthored and single-authored articles to be submitted to top-tier philosophy journals or volumes published by reputable editors; oral presentations of these articles at local or international conferences before submission.

Within the philosophy community, our strong connection with the International Social Ontology Society (ISOS) and the Metaphysics Collaborative provides us with infrastructure for organization of research events, scientific exchanges and promotion of research results. KK and OM also have ties with the *Social Ontology Research Group,* led by Miguel Garcia-Godinez and Rachael Mellin (U. of Glasgow), and the *IOF*, co-founded and co-directed by project-partner, Barry Smith. Our postdoctoral researcher, MED, has been specifically focused in her research on issues at the intersection of social ontology and the philosophy of games. Our scientific collaborator, AD, specializes in the philosophy of games, and has significant ties within the philosophy of games community – e.g. the Game Philosophy Network; the Copenhagen Center for Computer Games Research, or the Liège Game Lab –, which will help advertise our events and build scientific partnerships.

We will pay particular attention to the public dissemination of our research results through our regularly updated project's website. To engage with a broader non-academic audience, we will ensure that our project and research topics are communicated to suitable media outlets in Switzerland and beyond.