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## Towards a Theory of Dialogic Play for Learning

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**Abstract:** In this paper, we argue that differentiating dialectic from dialogic play can illuminate important differences between current approaches to game-based learning and can suggest new directions for the field of game-based learning. Expanding on Vygotsky's work on imaginary play, we work towards a theory of dialogic play with particular focus on the role of vulnerability in learning, and propose it as an alternative to prior approaches that emphasize content learning or tool-mastery. Because it encourages curriculum that supports new ways of relating to difference and otherness, we believe that dialogic play is important to consider in play-based learning, as it more closely aligns with sociocultural approaches that address issues of power, and may be useful in the design of related curriculum.

### Introduction

The Learning Sciences has long recognized that play is both complicated and important for learning and development (Eisenberg, 2007). More recent examples of work that characterizes play-based learning include Williams-Pierce and Thavenow-Harrison (2021), who “define mathematical play as voluntary engagement in cycles of mathematical hypotheses with occurrences of failure”; Saleh et al. (2019), who define collaborative inquiry play as: 1) rule-based imaginary situations that provide challenging problems and 2) experiences that present agentic multiplayer interactions; and DeLiema, Enyedy and Danish (2019) who describe a study in which play-based practices drive an inquiry activity and how best to support these practices. In short, the Learning Sciences has been gaining insight into the types of play that are good for learning across different contexts and gaining a better understanding of how that play can be supported in formal education. In this paper, we argue that further examining play-based learning - especially differentiating dialectic from dialogic play - can illuminate important differences between current approaches to game-based learning and can suggest new directions for the field. This philosophical and theoretical work connecting ‘play’ and ‘learning’ can complement recent empirical Learning Sciences research, informing the design of educational games that are focused less on mastery learning (especially regarding in-game systems and symbols etc.) and more on players’ socially situated and developing identities as well as their relationships with other agents involved in the game (e.g. designer, player). These kinds of dialogic games incorporate a concept of learning as relational and ecological, making them suitable for learning domains that are particularly difficult to teach in higher education, such as ethics (AUTHORS).

### Revisiting Vygotsky's Theory of Play

To Vygotsky, play is an important driver of learning and development as it enables children to separate their field of vision from a field of meaning. He points out that it is often mischaracterized as 1) predominantly symbolic action or 2) as simple pleasure-seeking behavior; he rejects both. First, Vygotsky argues that considering play as symbolic action or taking a predominantly cognitivist perspective (e.g., players as algebraists) misses the emotional and motivational components that undeniably drive (especially childhood) play. Second, he maintains that while play includes players taking motivated action to seek pleasure, there are many other activities that children engage in that are more consistently pleasurable (e.g., sucking a pacifier) and that don't include the sometimes strong negative feelings that accompany play (e.g., losing a game). Play thus seems to involve something distinct from symbolic action and simple pleasure-seeking behavior.

In Vygotsky's conception of play, the child creates *imaginary situations* – play is “the illusory realization of unrealizable desires.” On the one hand, this act of imagination can be liberating. Action is untethered from the constraints of reality: “In play a day can take half an hour, and a hundred miles can be covered in five steps.” Thinking becomes acting; what the child wishes to happen, happens. On the other hand, playful imagination is purposefully restrictive: Play relies on the creation and expansion of constraints, rules, and boundaries. Through the creation of imaginary situations that enable freedom of action bound by rules, children in play can explore new fields of meaning that adopt increasing sophistication - a stick and later a postcard can transform into a horse, depending on the rules of the game and the developmental state of the child. Because of the rules derived from these imaginary situations, the freedom of meaning exploration is constrained, such as in the way that the child must resist the immediate impulse to treat an object as they see it or must abide by what she imagines constitutes a “sister” while role-playing as one. In play, the immediate impulse must be renounced and subordinated under the rules of the game. This constraint creates further

opportunity for playful experimentation, for example the subversion of established social rules, or the pleasurable exploration of ‘forbidden’ emotions (e.g., ‘schadenfreude’, gloating, feelings of superiority): “For example, the child weeps in play as a patient, but revels as a player”, Vygotsky writes.

It is with reference to this rule-following that Vygotsky’s description of play can be dissected and alternative views presented. As Wegerif (2007) and others have pointed out, Vygotsky’s theories of learning rest firmly on an assumption of a dialectic, such as in the now classic ontogenesis of a pointing gesture through an interaction between mother and child. Subsequent interpretations of Vygotsky (especially Wertsch, 1991, 1998; Wertsch & Kazak, 2005) have tended to focus on this dialectic nature of learning in developing a broader theory of education which positions cultural tools (e.g., signs, artifacts) as activity mediators that support individuals performing activity “beyond themselves.” Through such sign-mediated activity (e.g., language use) culture becomes a part of the person’s nature and at the same time is propagated in the world. This dialectic approach is more difficult to apply in the context of informal play amongst adult players, as cultural norms in these spaces are negotiated as they are established and hierarchical structures (e.g., experts/novices) coexist alongside flatter structures (i.e., peer players). We argue that shifting attention away from tools and dialectic framings and toward play and dialogic framings supports an examination of learning in games that is more broadly applicable, beyond the scope of early childhood education and learning.

### A dialogic approach to learning through play

To frame play as dialogic, we draw on Wegerif’s (2007, 2011) notion that in a dialogic education, an individual learns to see things from two perspectives at once. Reiterating Bakhtin (1987), he argues that, “relationships between things are very different from relationships between voices” (Wegerif, 2007, p. 43) and that learning is dependent on establishing and maintaining a dialogic relationship between the learner and the ‘other.’ This relationship between voices involves creating a ‘space’ between the self and other within which both “mutually construct and reconstruct each other” as they seek understanding (ibid). A dialogic approach is thus close to but distinct from a dialectic approach, particularly in its purported aims. In a dialectic approach (à la Vygotsky, Wertsch, and Kazak), effective cultural sign and tool use is the primary goal. The dialog is the pedagogical method. The aim of the dialog is for the student to acquire, and for the teacher to transmit, a shared understanding of the socially constructed meaning of tools (Daniels 2014, p. 20). In formal education, what is to be learned should be congruent with already-established culture norms (e.g., mathematics).

On the other hand, in a dialogic approach to learning, the role of the tool and sign is to provide support and expand dialogues between people with different viewpoints and understandings (Wegerif, 2011). Unlike dialectic learning, tool use and representations may take on multiple provisional meanings as one attempts to understand what the other is saying, these representations may or may not align with cultural norms. Dialog, in this case, creates the opportunity for development (i.e., the ZPD) that is not arising from the difference between the individual’s understanding of the tool and the culturally evolved meaning of said tool, but rather from the different interpretations held and voiced by interacting individuals. The result of this kind of dialog, as Wertsch has pointed out, is not the dialogic reduction of difference towards a particular aim, but the construction of new meaning that is not already present between the dialog participants (Daniels 2014). This process of dialog interpretation may involve listening, trying to proceed in conversation, and addressing our own prejudices as we comprehend what the other says and contribute our own voice to the conversation (Vilhauer 2010).

Games can be seen as both dialectic or dialogic tools for learning. As dialectic tools, learning to play a game can be considered akin to learning how to do math, as both involve learning appropriate sign/tool use. When the two systems are appropriately aligned, learning to play a game can result in knowledge that is advantageous for acting in both systems. As dialogic tools, games can create spaces for shared conversation and understanding between players and others involved, whether those individuals are immediately present as co-players or are temporally removed but acting through the game’s code (e.g., designers). Learning in such games does not necessitate learning content that is relevant to an out-of-game system (e.g., math) as with a dialectic game; this would not be the aim of such a game though it may be a secondary goal. Instead, in a dialogic educational game, players would come to a better understanding of ‘the other’s’ perspective.

We argue that shifting emphasis from dialectic to dialogic supports a more broadly applicable and less content-focused approach to game-based learning. Specifically, there are at least three areas that may be impacted from this shift. First, a dialogic approach may be applied to domains where prescribed solutions cannot be as easily taught due to their open-endedness. For example, where framing a game as dialectic may be useful for teaching a set of ethics standards, dialogic games may be a better consideration for ethics dilemmas whose solutions rest at the intersection of individuals’ and society’s values do not necessarily have clear solutions. In such a case, playing an educational ethics game would be less about learning to master a particular system and more about understanding different perspectives (AUTHORS). Second, a dialogic approach may better account

for the work of individual identity development that accompanies tool use, game-based or otherwise (c.f., Weidler-Lewis et al., 2021). For example, rather than aiming to develop students' particular professional practices or nudge them toward particular ways of being (e.g., as scientists), dialogic game play might present space for a player to simply better understand how such professionals view the world and how their own views are related. Additionally, a dialogic approach places greater emphasis on the player's voice, including who they are (rather than a prototypical student/player) and the context in which they're playing, such as when a game is designed in the context of professional audiences who enter with significant background knowledge (Author, forthcoming).

Finally, by considering multiple actors in dialog as the educational aim of a game, a dialogic approach can better account for the non-symbolic aspects of play (e.g., emotion). As mentioned earlier, Vygotsky emphasizes that play, especially amongst children, cannot merely be considered to be symbol manipulation and considers in particular the motivations of play. "The essential attribute of play", Vygotsky writes, "is a rule that has become an affect." That is, through play, children can project their desires into who they are within a game and the rules that they determine must be followed so as to achieve pleasure. In education and learning games, this notion has already been explored, such as with Gee's description of game-based projective identity and games as providing a psychosocial moratorium (Gee, 2003). What remains is understanding how to leverage these ideas in the design of educational games so that the motivations, emotions, or desires of individuals can be respected rather than harnessed for greater symbolic mastery.

### The basis of a dialogic approach to play

As mentioned earlier, learning sciences research has begun to provide deeper and broader investigations of play-based learning. From Delima et. al's (2019) work, that places play strikingly at the center of the learning activity in a formal educational environment to Siyahhan and Gee (2018), who have recently explored at length the mediational nature of intergenerational game play amongst families, we are beginning to get a better picture of how play takes place, can be supported, and relates to learning across widely varying contexts. An important characteristic of play that is seen across this research is the development of the relationship between the player and other players or facilitators (the "other.") How does this relationship come about? As others have pointed out, play can be thought of as an activity that involves willful decision making, including whether or not to play at all (Salen & Zimmerman, 2003). A definition that focuses on the willful action of an individual player, however, does not adequately characterize how one plays with others or describe the *interactions* necessary for or comprising play.

For other species, we see that playing with others can involve a combination of mechanisms, such as self-handicapping, or a willingness to put oneself into a state of limited vulnerability that is signaled with behavior (e.g., Bauer & Smuts, 2007), and signaling, such as when dolphins emit a characteristic sound not found during aggressive encounters (Blomqvist et al., 2005). In human play, understood as dialogic, we argue that vulnerability is essential in understanding how relationships are developed in play. We believe it to be important for three reasons. First, vulnerability is what enables an invitation to play. It is characterized by an act of subjecting oneself to the potential outcomes of the inherent contingency of the game or the skill of the game and those involved (Malaby, 2009). By including vulnerability in our analytical focus, we attempt to account for the difference between games that are played and games that are used. In formal educational contexts, where students are captive audiences that are required to complete curriculum, this invitational nature of play tends to be overlooked or taken for granted. In schools then, we can differentiate between games that are used but not played.

Second, vulnerability enables the construction of the shared dialog space within which meanings are negotiated. Why is it that a computer solving a chess problem does not resemble a "playful" activity? Play, engaged in by an individual and an "other," requires at least one party to care about the activity, to be emotionally invested. Vulnerability can be thought of as the emotional down payment needed to start to play, with successive emotional fulfillment (caring) driving a player to seek an understanding of the "other" and in so doing create the interstitial space where play meanings are negotiated and understood. People continue to play because they care, and caring is a state of being vulnerable.

Third, vulnerability creates the foundation for a particular kind of relational ethics between partners in play based on the fundamental recognition of 'the other' as 'Other', i.e., as fundamentally different from oneself, and the willingness to be recognized as such in return. Play as we have conceived it in this paper, in connection to vulnerability, is an expression of one's desires and wishes - to take on particular roles, to challenge certain boundaries, etc. Such playful expression relies on authenticity and openness to be oneself and to be 'seen' and respected as such by one's partner in play. Therefore, dialogic play presupposes and simultaneously facilitates an openness towards 'the other's otherness' and its fundamental acceptance as part of the process of meaning making. As opposed to dialectic play, in dialogic play the aim is not to assimilate the

other, but to seek understanding of them as ‘Other’. Derrida has highlighted the ethical dimension of such a way of relating aimed at “the experience of the other as other, the fact that I let the other be other, which presupposes a gift without restitution, without reappropriation, and without jurisdiction.” (Derrida, 1993, p. 105) In formal education contexts, dialogic play has the potential to create space for encountering the ‘Other’ and engage in more democratic education.

### Where do we go from here?

Our theory of dialogic play proposed here is admittedly nascent, and we are in early stages of developing theoretical and empirical work around an ethics education game to begin testing its usefulness and validity. We nevertheless believe that a beginning a discussion around dialogic approaches is important, as it provides alternative to current dialectic approaches and may encourage a shift from looking at play as an epiphenomenon toward play as a life-long activity that is not only important in child development, but that continues in shaping our learning and relationship development throughout adulthood. Further, viewing digital games and play from both dialectic and dialogic approaches offers better support for designing artifacts and activities in ways that support players relating to and understanding difference and otherness. We believe this is alternative is timely, as shifting from developing educational games that impart knowledge to those that support dialog, relationships, and an understanding of the “other” may better align with sociocultural approaches that are attuned to issues of hierarchy and power (Esmonde & Booker, 2017) and may better support curriculum that addresses issues of diversity and equity.

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