Human vs Environment –
An Ecolinguistic Analysis of the Game *Valheim* from a Didactic Perspective

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Education has a key role in transforming societies and promoting sustainable development, especially at a time when climate crisis is increasingly urgent (Ripple et al. 2022). As different sectors of society invent methods and strategies to deal with challenges that Education for Sustainable Development (ESD) addresses, education needs to find concrete and specific ways of dealing with these issues, that highlight what higher education can do (Wiek et al., 2015) or what specific challenges and opportunities that exist within particular school subjects. In this essay, the overarching question is: In what way can the school subject of Swedish, or L1, contribute to ESD? The following essay is based on two assumptions about the role of language in school's work for sustainable development. The first assumption is that our way of talking about subjects, objects and matters affects how we think about and understand them, which means that we need to become aware of what representations of the world that are conveyed through language (Stibbe 2021). The second assumption concerns how language includes all types of meaning-making that takes place in communication, which means that we need to have the ability to critically relate to content in different modes, technologies and media (Hall 2013; Kress 2004).

An important part of L1 teaching will thus be training students to have a critical approach on how we think and talk about the world we live in, by understanding how language in all its forms affects us. With this essay, we want to show that even something as non-

traditional (in relation to the teaching of the school subject of Swedish (Thavenius, 1999)) as a digital game carries linguistic structures that influence us, and further, how this is relevant for the teaching of Swedish. In this way the underpinning rationale of this essay is twofolded in that it contributes to a discussion of how the school subject of Swedish can promote ESD and secondly to explore ways in which different representations, such as digital games, can be analyzed in school.

The aim of this study is to analyze the game *Valheim* (2021) from an ecolinguistic perspective in order to find which representations of human relationship with animals and nature are conveyed in the game. Furthermore, these representations are used to draw conclusions about the didactic relevance of such an analysis for the school subject of Swedish. The following questions have been formulated: How is the relationship between human and nature constructed in the game Valheim? What stories can be identified based on these constructions? What didactic relevance does the analysis have for the school subject of Swedish in working with ESD?

The game: *Valheim*

The digital game *Valheim* was published on 2 February 2021 by the Swedish company *Iron Gate Studios* through the content delivery-system *Steam* where the game already had 4 million new unique players a month upon its release. Since then, the game has rapidly grown in number of users (Steam 2022).

The game is designed for PC and the content is clearly influenced by old Norse mythology and setting (Steam 2022). This can be seen, for example, in the sporadic meetings the avatar has with characters such as Odin and Thor as well as Hugin and Munin. This influence is also evident in the game world, which is described as "Odin's tenth world" and the plot which constantly refers to various places in Norse mythology, including Valhalla, Hel, Yggdrasil and Midgard.

The game can be defined within the genres player-versus-environment (PVE), survival and sandbox. The first two genres generally mean that the style of play is characterized by the player being pitted against the game's artificial intelligence and its associated environment in a struggle for survival. The third genre, sandbox, means that the player can largely influence the game environment, shape the world and infrastructure. Another game that falls under similar categorizations is *Minecraft*, which offers the player a variety of opportunities to construct the world using materials collected during gameplay. The player also encounters several different obstacles in the form of creatures that the player must kill or avoid, while they must have food and construct buildings for safety. Both games include a progression system where the player can create new and better tools, armor and buildings that fulfill different functions to advance in the game.

A difference between *Minecraft* and *Valheim* is the inherent plot, with the former having a more open narrative where the player makes many of the choices. This leans more towards the sandbox genre as it places a greater focus on the creation process. *Valheim*, on the other hand, gives the player a goal to achieve and a narrative to follow in order to complete the game.

The game *Valheim* begins with the player descending from the sky to the center of Odin's tenth world, Valheim. The overall aim of the game is for the player to prove their worth to the gods which is done by progressing through and overcoming different biomes (natural environments) which include forest, sea, tundra and desert. Each biome has different creatures that the player must fight to impress the gods.

Digital games and the teaching of L1 in a Swedish context

The school subject of Swedish has an important task in teaching students about digital communication. The Swedish National Agency for Education (2022) states that students at the upper secondary level "should be provided with the conditions to develop

their ability to orient themselves, read, listen and communicate in an expanded digital text world". This means that teaching of L1 in a Swedish context should have methods to develop and provide conditions for this type of learning. But what does it look like in practice?

There is research that touches upon the matter of how effective the use of digital games is in promoting learning and teaching. The Swedish National Agency for Education (2020a; 2020b) summarizes a majority of theses and states that there is potential for sense-making in digital resources in Swedish education. Furthermore, they highlight that these teaching methods and contents have the potential to increase students' motivation and interest in the material they learn through. Despite these insights, the Swedish National Agency for Education highlights that there is still a weak use of these practices in school and that students lack the tools and language to relate to the material. Thus there is a lack of methods for both teachers and students to process this content in an adequate way.

This study examines, among other things, how it is possible to "read" digital texts within an expanded view of the concept of text. Magnusson (2014) argues that the teaching of literature would take advantage of an expanded text-view and that it could develop education for the better, but that, again, there is a lack of a clear conceptual apparatus to handle the content. Therefore, there is a need to investigate how multimodal analyses of literature can be developed, performed and assessed in practice.

Learning for Sustainable Development in School

The Swedish school system also plays a role in educating students about sustainable development and fostering an understanding of themselves in and of the world. The curriculum for upper secondary school calls for the cultivation of respect for our shared environment through education, emphasizing the school's nurturing mission, which includes individual responsibility for the environment (The Swedish National Agency for Education 2011).

This can also be seen in the environmental goal of the upper secondary school's mission: "Education should highlight how the functions of society and our way of living and working can be adapted to create sustainable development" (The Swedish National Agency for Education 2011). This aims to direct teaching towards a type of learning where students understand how their own actions in society can affect the environment. Hence, there is additional evidence warranting an inquiry into how it is possible to use this type of analytic approach and how it can be applied and integrated in relation to an ecolinguistic perspective on learning.

A contemporary focus of the Swedish educational system is teaching that promotes sustainable development. Wessbo and Uhrqvist (2021:8) highlight the problematization of humanity's relationship to the environment. They argue that teaching should go beyond simply teaching the material and instead contribute to the students' own involvement in these issues.

The authors also highlight the power of stories and storytelling and believe that these are important components of learning for sustainable development (ibid:14). Here, they highlight research that suggests that stories can influence the relationship between humans and nature, as well as the importance of teaching an approach to reading that makes students understand that they are active readers.

Language and Learning for Sustainable Development in School

In the generical sense of the word, theory is here used in two ways, by guiding the study to salient features and concepts that facilitate our fulfilling of the aim of the study, and secondly by making certain aspects of the game relevant and interesting. In the following parts we discuss ecolinguistics, ecosophy and types of stories.

Ecolinguistics

The analysis draws from an ecolinguistic perspective. This theoretical framework is based on Stibbes (2021) argument about "the stories we live by" from an ecolinguistic perspective. Stibbes (2021) purpose is twofold; partly to reveal the ideologies that underpin unjust and unsustainable societies, partly to find new ways to build a more sustainable world. What he calls *stories*, summarize the ideologies that our societies are based on, that permeate our view of the world and are accepted as truth. Stories can be defined as cognitive structures in individuals' minds that influence how they think, talk and act. What Stibbe calls "stories we live by" means stories that are found in many individuals in a certain group or culture. The point of talking about stories is that they say something about one version of the world among several possible versions (Stibbe 2021:20). What is accepted as truth within a culture does not therefore have to be the absolute truth.

In today's industrial societies, Stibbe believes that we live by stories that prioritize economics over ecology. Among other things, he highlights that we live according to assumptions that unlimited economic growth is society's main goal, that the accumulation of unnecessary goods is a path to self-improvement, that progress and success are defined in terms of technological innovation and profit, and that nature is seen as separate from humanity and as a stock of resources to exploit (Stibbe 2021:3). The latter story is largely based on the assumption that man is above nature in a natural hierarchy.

In order to reveal the stories on which society is based, ecolinguistics takes an interest in language. The basic assumption is that language affects how we think about the world (Stibbe 2021:1). The structures within language construct what is possible to understand about the world and in this way create stories that we live by. The stories are embedded within and between the lines of the texts that surround us (Stibbe 2021:3). What ecolinguistics can do is to explore the patterns and structures of language that ultimately affect the understanding and treatment of the world around us. In this way, an ecolinguist can investigate which

linguistic structures form the core of today's ecological challenges. Stibbe does this by exploring the framing, metaphors, evaluations, identities, erasure, salience and narratives of texts.

Based on the fact that critical language analysis is intimately connected to ethical issues, there is a need to clarify the ecosophy that this essay is based on. To a large extent, it is based on the ecosophy that Stibbe (2021:14–15) himself presents. From this perspective, all living species on Earth deserve to be respected and attributed an intrinsic value. All species should both be allowed to live and live well with high well-being, which should apply both now and in the future. Disservices to other animals and species must be addressed through awareness of the impact on others, through minimizing harm, and through the obligation to give back to the systems that sustain us all. This ecosophy also believes that an immediate and large-scale reduction in global consumption is necessary in order not to exceed Earth's limits in terms of natural resources and ecosystems. In summary, this ecosophy starts from a strong ecocentric approach (centered on all earthly life) as opposed to an anthropocentric approach (human-centered). To achieve this transformation from anthropocentric to ecocentric in the educational sphere , this article regards language in all its forms as a key. An aspect to changing how we frame the world comes by recognizing how language has structured the way we perceive ourselves and the natural world around us. Only after understanding these structures, can they be altered.

Multimodality

An approach to language is to look beyond what is communicated through written text and, instead, examine and understand language as a set of different semiotic resources. In the multimodal wheel that Magnusson (2014:40) highlights, in addition to written resources, there are also resources such as oral, auditory, visual and spatial elements. In communication where different ways of creating meaning interact, it becomes important to keep several of these in mind during an analysis. Within, for example, visual analysis, it is emphasized that meaning is created based on aspects

such as size, placement, color and sharpness (Kress & Van Leeuwen 2006:210), which is lost in a textual analysis. Stibbe (2021:31) argues that discourses constructed in society can exist within this expanded view of language. Through contents such as Valheim, language is used in a variety of combinations of semiotic resources and therefore a need is created to analyze them together to understand what overall picture is being constructed.

Method

The digital game analyzed in this study is *Valheim* (2021) and content from the official website of the Valheim Game (https://www.valheimgame.com) and the wiki-fandom page connected to the game (https://valheim.fandom.com/wiki/) The material offers a content-rich narrative and game mechanics that seemingly gives the player free rein to influence the game world where humans are pitted against nature. Thus, the material is well suited to be analyzed from an ecolinguistic perspective that investigates how stories influence our actions.

To narrow down the scope of the study, we focus on completing the game's first mission. The sequence was recorded through the Xbox Game Bar software on the Windows 10 operating system. The study's collected material resulted in a number of excerpts that partly consist of screenshots from both the website and the game, but also recorded sequences. As suggested by Espen Aarseth (2012a) the game researcher should interpret the material in the first place and be well versed in game mechanics to make a good interpretation of it. However, our study adds an additional layer by interpreting the material second-hand through an analysis of the recorded content. This approach was chosen to offer a more comprehensive perspective of the content, as a first-hand interpretation may potentially overlook important details.

Furthermore, the game's paratext was also analyzed. The term paratext was coined by Gérard Genette who describes this as external presentations of the work which are not part of the content but still influence the reader as they are connected to the

work (Genette 1997:2). Genette (ibid:3) divides the paratext into two parts; epitext and peritext. He explains that the peritext is the meaning conveyed about a work through for example interviews, conversations or private communication, while the epitext is all paratextual connections that are not materially attached to the work but that circulate freely in an unlimited physical and social space (ibid:5, 344). This study focuses on part of the epitext (the web page), which supplements the study's material in order to more easily identify the stories conveyed in the game.

This study argues that games can be analyzed based on qualitative methods, in a similar way to literary studies, to highlight which discourses are active in the text. Matthew David & Carole D. Sutton (2016:159) points out that it is possible to decode textual data from "all forms of meaning-laden objects that the researcher can collect in order to analyze them" which, from a multimodal perspective, enables working through many different frameworks.

Ludo narrative: world, agents, objects and events

According to Aarseth (2012b:2), digital games should not be simply referred to as 'games', as they are complexly created software that has the ability to recreate a variety of semiotic resources. All of these convey different stories that must be understood in their context. Thus, this study sees that an image does not always convey the whole meaning, but it must be analyzed in its context and all the language that goes with it.

There are challenges in applying literary analysis methods to a work like Valheim where the content goes beyond textual properties. However, Aarseth (2012b:2) has managed to identify four common denominators for narrative in digital games: the game world, objects, agents and events. Aarseth (ibid) suggests that these four elements function as cognitive building blocks that create representations of the outside world.

Aarseth (2012b:2) also raises the concept of ludo-narrative, which can categorize games based on how fixed the narrative is in relation

to the possibility of playing freely and making one's own choices. By examining the ludo narrative, it becomes apparent how the four elements are represented. This can be seen, for example, by how much agency the player appears to have in relation to objects and how much the players can shape their surroundings.

In this study, it is important to note that the implicit narrative in the game does not necessarily reflect an objective reality. Instead, it represents the subjective interpretations of the game's creators. Stories and the interpretation of underlying hierarchies in the game are thus important for understanding how society produces and reproduces perceptions of reality. When the various elements are examined from this point of view, the researcher can see what kind of agency is attributed, which objects are placed in the foreground or background respectively, which events are marginalized and how the world is structured in itself, that is, which reality is perceived to prevail.

Stories about human versus environment in *Valheim*

By studying different parts of the game through Stibbe's ecolinguistical glasses, we were able to find five stories which are prominent in how the game constructs the relationship between human and nature. Below are the results of our analysis.

Humans as the centre of the earth

An overarching story that pervades the game is the portrayal of humans as the center of the earth. This can, for instance, be seen in *figure 1* where the game's main characters, the human avatars, are put in the center while nature is backgrounded. The visual message conveyed through the image also gives connotations to conquering nature since the avatars are portrayed wielding weapons for hunting and foraging (a spear and an axe) while they gaze upon the vast nature in the background. By centralizing human activity while putting nature in the background combined with the story of a divine goal, a truth about the world is created that humanity can,

and should, conquer nature since it is their right. Consequently, this separates humans from nature by giving them a "top of the chain" hierarchy.

Figure 1. Picture from the starting page of https://www.valheimgame.com (2022)

This pattern is not exclusive to the game but is also reflected in society at large. Stibbe (2021:3) believes that the story of man as the center of the earth separate from nature is something that hides behind many common ways of expressing ourselves linguistically in industrial societies. Similarly, Paul Kingsnorth & Dougald Hine (2009) also describe the story of human centrality and the human species as destined to be master of everything as the most dangerous one we live by today.

Nature as a collection of resources

Another story that stands out clearly and pervades the game is that nature is essentially a collection of resources for man to take advantage of for his own purposes. This can be seen, among other things, in that the game's aim and goal presupposes the exploitation of nature carried out by the human character. Without cutting down trees and collecting animal hides and horns, there is no way to advance in the game's core features. It is also seen in the process

when a creature dies; the body and blood disappear and all that remains are a number of interactive objects that fulfill a function for the player. Not only objects such as trees, bushes and mushrooms exist for humans to collect, but also many agents whose sole function is to become material. The fact that the player as an agent is framed as a hunter chasing prey further reinforces this image.

The story is based on the assumption that the way objects and agents are treated by the human character in the game according to its conditions conveys a picture of the purpose and functions of nature and the human relationship to it. That animals must be killed and forests must be razed creates a notion – a truth – that animals and nature exist to be used and serve a purpose for humans, which leads to the narrative of nature as a collection of resources. Similar beliefs reproduced in the game are a thought pattern that already exists in our society. Stibbe (2021:3) believes that today we live according to a story that nature is only a stock of resources for humans to exploit. He also believes that this approach in the long run influences how we act in the world; if nature is seen as a resource, we are more likely to exploit it (ibid:6). This type of thinking is constantly reproduced in language and texts around us, not least in a game like *Valheim*.

Nature is hostile

Another story that can be interpreted based on the analysis is that nature is hostile to man. This can be seen by animals and the environment being represented in a negative or aggressive way through how they are described, how they look and how they act within the game world. One example is that the player's mission is framed with war metaphors where non-human animals are the enemy to be defeated. Another example is that creatures are called "beasts" and portrayed as monstrous, aggressive and dangerous. This does not apply to all animals as there are also, for example, deer that exist passively without attacking the player, but the vast majority of agents are out to harm the player or attack if they get close. The bosses in particular, which are distorted versions of real

animals and things, paint a hostility that connects to the nature of the game.

Within the player-vs-environment genre there is a built-in prerequisite of competing against nature and the environment, which constitute a kind of adversary. The combined negative value patterns shape the player's perception of that nature and the creatures in it are something hostile to be fought. This is an example of when different parts interact to build an image with a negative connotation; through meaning-making resources from Magnusson's multimodal wheel (2014:42) such as textual and visual, but also Aarseth's (2012b) division of the game's world, agents, objects and events. The description and representation of nature as well as its functions and conditions in the game build up a story of hostility in interaction.

Meat as a vital resource

This story is about the importance of meat in the human diet; that it is a key to survival and success. This is primarily seen in the function of meat in relation to other dietary options. Thus, we find the largest proportion of evidence for the story in how the game is structured and what alternatives are available to the player. Within the game world, animal meat is presented as more efficient than other types of food in that it generates more "health" than the consumption of, for example, mushrooms or berries. Furthermore, due to the fact that it is not possible to eat as much of the same type of food as you like, the game's conditions lead to a prioritization of meat to maximize efficiency. In order to win the game, it is practically impossible to avoid the meat or to kill animals to get the meat.

This choice made by the creators says something about the view of the human diet, which alludes to a story that exists in our society today. Stibbe (2021:110) describes how the focus on meat as a diet is a story that builds our human identity. This way of life is conveyed through, for example, lifestyle magazines such as Men's Health, which build up stereotypical perceptions of male identity.

The core of the story is based on the assumption that an ideal man should have large muscles, and large muscles are achieved by eating large amounts of red meat. Stibbe (2021:113) highlights how this is a destructive story from an ecological point of view because meat production is harmful both to animals and the environment and that meat consumption is linked to a shorter lifespan. Therefore, meat primarily has a symbolic value for masculinity and male dominance. This approach is reproduced in a structure where meat is portrayed as vital to living and achieving one's goals.

Life on Earth is temporary

A final story that we interpret from the analysis is that life on earth is temporary. This is primarily based on the narrative itself, which frames the game's goals and how the player is expected to behave within the game world. The following text from the website under the heading "Character Lore" describes the background to the player's character and why he is in the fictional game world:

> In order to prove your worth you have been sent to the 10th Norse world – Valheim. Only by surviving and fighting in a harsh environment with many mythical monsters and beasts will you prove your worth to the gods. For those who don't prove their worth though, the only place they will find is Hel - The underworld, where their soul will be tormented for centuries. Or maybe you will be one of the strong warriors who will prove their worth and earn the favor of the gods, then your place will be in Valhalla – a majestic enormous hall located in Asgard, and by your side Odin. ("Character Lore", https://valheim.fandom.com/wiki/Lore, 2020)

Just like the story of man being at the center and guardian of nature, this story alludes to religious beliefs. The purpose of Valheim is to please the gods in order to move on to another life. The idea is to conquer the material world in order to progress to the divine world at Odin's side in Valhalla. A failure leads to the person ending up in Hel – the underworld. Regardless of the afterworld that awaits, the basic idea is that the human character will not remain in the world where the game takes place. For this reason, the player does not

have to strive for any long-term sustenance or worry that their actions will have negative consequences. Such an approach becomes destructive when opposed to our ecosophy because a temporary life on earth does not encourage living sustainably, since it is not necessary. David Korten (2006:248) describes how the biblical narrative focusing on the afterlife rather than the world around us is one of the four major narratives at the core of Western imperial civilization, which has the greatest ecological consequences. Framing human existence as something that will transition into something better does not create an obvious motivation to nurture and protect the outside world or to build for a better earthly future. The world is seen in this process as a temporary place which only has the purpose of allowing man to fulfill his spirituality. Thus, non-human and earthly life becomes less valued. In the thought pattern reproduced in Western Christianity (cf. White 1967), the reward is perceived as coming from the spiritual world, so that is the relationship which should be nurtured. This pattern of thought is also reproduced in Valheim with the metaphysical relationship that is sought.

Discussion

The purpose of this essay has been to investigate what types of representations of the relationship between man and nature are constructed in the game *Valheim*. This has been done based on an ecolinguistic perspective and in consideration of how it might be didactically useful for L1-learning in ESD. By analyzing content based on its paratext and main text, the study aims to contribute to a deeper understanding of how power structures can operate within digital media.

A basis for this study has been that a text can never be neutral (cf. Janks 2014:3). Therefore, all texts need to be understood based on which different perspectives of power dominate the discourses that shaped them. By introducing how critical literacy can be used with multimodal contents in relation to different literary concepts and linguistic theories, the study finds that there are certain common denominators that can be used to illustrate these non-

neutral narratives. When this is put in relation to ESD, the study finds how teaching can meet students' leisure interests and give them tools to act independently both in and outside the school environment. The study thus responds to current needs that are invoked both from GY11 and the Swedish National Agency for Education (2020a; 2020b), as well as needs that are frequently addressed in research (Uhrqvist et al, 2021; Nordén, 2018; Mogensen & Schnack, 2010).

This study has combined three areas of research that are relatively new, at least in an educational context. Multimodal media can certainly be said to have an obvious place within language subjects because it is now established that society has more means of communication beyond the written text. However, games cannot be said to have an equally obvious place anywhere apart from students' free time; teachers do not have sufficient knowledge and the traditional text still has a sacred place within the subject of Swedish. The crux of our study, however, does not advocate for the integration of games into language subjects. Instead, our study underscores the importance of applying a critical lens to all forms of media encountered by students in their everyday life, even those used in their free time. The role of the Swedish subject is to reveal and challenge linguistic structures in texts and stories around us to make visible which "truths" we live by in today's society. Ideas from Janks, and in Swedish context Molloy (2017) supports this claim. As children increasingly engage in digital environments, playing games and participating in social media, these digital spaces are also becoming more significant in educational settings. This prompts a crucial need for research and critical discussions about the convergence of schools and digital culture. Within the realm of Education for Sustainable Development (ESD), this intersection gains particular significance. Our examination of *Valheim* has shown the complex interplay and tension between digital culture and the processes through which meaning is constructed within the contexts of primary language (L1) and ESD.

In relation to previous studies on education and ESD and L1this study contributes with the usage of an ecolinguistic perspective and, furthermore, to show how discourses and stories can be

studied even in contents such as games and how this enables the development of critical literacy for students.

An objection could be made that digital games have no place in school as they are seen as a leisure interest and not of importance for education. There are studies that highlight how teachers stand against using digital media in teaching and argue that it should instead be based on traditional text where games belong to a so-called lower culture (cf. Olin-Scheller 2006; Olin-Scheller & Tanner 2018). However, this study argues against that claim. As media content has radically changed accordingly with society's digitization, communication and social meaning-making processes have received a major boost. In our time we receive a vast amount of impressions from a multitude of directions through television, film, social media and digital games on a daily basis. Therefore, the need is urgent for society to be able to relate to these media impressions and create a common meta-language for these phenomena. For teaching and education to respond to these challenges, there needs to be a radical change in the outdated view that to some extent seems to dominate the teaching of literature. This change includes the introduction of adequate tools that can be applied for an expanded reading. Björn Sjödén (2018) shares a similar thought and highlights that teachers should develop a metacognitive approach to how digital applications work and to how knowledge can be created in the interaction that occurs. Sjödén argue that the tools should not be the focus, but that they should be means to create independent, critical and socially aware individuals. A common meta-language and a common meta-cognitive approach are thus called for when introducing the tools that further can teach both teachers and students to understand learning in this context.

This study does not aim to address all the needs arising from the expanded text concept within digital media. Instead, it constitutes a proposal for how it is possible to work with these meaning-making processes in an integrated work that includes the school's dual mission; the transmission of knowledge and the education of democratic citizens. Aarseth and Möring (2020) believe that computer games are a complex phenomena that consist of several

dimensions that must be taken into account when creating social meaning. The software has the ability to emulate several different media (for example board and card games as well as books that are in the game and that the player can read). They believe that games are a hermeneutic spiral where it is constantly possible to create and recreate several ideologies and that the interactional possibilities can be so great that the same content creates different meanings at different occasions (2020:7). Therefore, this study is seen as a proposal for an approach among many viable options.

Ecolinguistics has a normative view of what a "good" cause is and can sometimes seem quite judgmental. It can also be perceived that too much attention has been put upon the authors when they created the content and that the study links the creators to the formulation privilege. The study aims to do the opposite. Andrew Bennet and Nicholas Royle (2004) raise the concept of "authorial intention" and mean that we must understand that creators are part of their contemporary time and that the language that is conveyed is not always controlled by the authors. Instead, the study must start from understanding the structures which language is created by and understanding that language is formed within the framework these structures construct. In this case, the privilege of formulation is seen as something greater than the authors themselves. They are seldomly the ones who produce these discourses. Instead they are often only part of the reproducing hermeneutic circle. Therefore, it is important for the study to show transparency by stating: 1. there is awareness that the perspective includes a lot of subjective interpretations of reality and 2. the study looks beyond intentions and instead examines linguistic power structures that create and reproduce these stories.

Furthermore, this essay highlights the importance of creating reflection on humanity, the individual and society and how different bodies can be active in a societal transformation that several institutions demand and describe as necessary (Wiek, Withycombe & Redman 2011). Learning for sustainable development is central to the environment and democracy. It is therefore not only possible to connect the result to a bound subject, but it must be seen from a societal and global context. Stibbe

(2019:234) believes that the basis for an unsustainable society is created from stories and that language is a key to making these visible and, subsequently, to challenging them. This is knowledge that has the potential to go beyond the confines of school as it is an approach to linguistic structures that constantly govern our everyday life. The result of this study points to a potential that has previously been reasonably overlooked, namely how discourses are produced and reproduced in multimodal sense-making. This study therefore has a high relevance for directing the focus towards linguistic discourses that society encounters outside the world of school and shaping students who themselves can take a stand on contemporary and future global problems.

As teachers, we are part of the system that shapes individuals, discourses and society. We must therefore look at our own role and what we can do to influence the meaning-making processes that are reproduced in the daily discourse. We believe that the approach that a critical literacy entails can form a basis for shaping the self-thinking individuals of the future. It can be seen as a vital part of creating a democratic classroom and shaping students to think democratically while questioning hierarchies that exist in society. The knowledge and principles imparted through this study can be seen as existentially oriented and thus go beyond the confines of school and can contribute to the formation of democratic citizens.

In order for education to be put in relation to society as a whole, it is required, as mentioned above, that the knowledge is not only linked to the subject of L1 language. Instead, it needs to integrate these principles across multiple subjects to reflect how knowledge goes beyond the subject context. This is also the opinion of Wessbo and Uhrqvist (2021:15), who explain that learning for sustainable development can be processed across subjects and that the literature teaching of the Swedish subject can function as a central resource in this work. They find arguments for this in the Swedish National Education Agency (2011:1) in the purpose of the Swedish subject, where it is stated that the Swedish subject should "challenge students to new ways of thinking and open up to new perspectives". Furthermore, they explain that an interdisciplinary teaching of stories based on ecocritical traditions of ideas is fruitful

in the work for sustainable development, but that it needs to be integrated with different traditions of knowledge to create additional relevance. Although interdisciplinary work was not the focus of this study, these insights are touched upon by integrating ecolinguistics, multimodal theory, literary analysis and critical literacy with stories that abound in society and can thus contribute to form a basis for further work with interdisciplinary work in learning for sustainable development that is adapted to our digital age.

References

Aarseth, E. (2012a). Playing Research: Methodological Approaches to Game Analysis. In B. and introd. . Herzogenrath (Ed.), Travels in Intermedia[lity]: ReBlurring the Boundaries (pp. 175–191). Dartmouth College Press.

Aarseth, Espen (2012b). "A narrative theory of games". I: *Foundations of Digital Games Conference Proceedings*, s. 129–133.

Aarseth, Espen & Möring, Sebastian (2020). "The game itself? Towards a hermeneutics of computer games". I: *Foundations of Digital Games Conference Proceedings*. https://doi.org/10.1145/3402942.3402978

Bennet, Andrew & Royle, Nicholas (2009). *An introduction to literature, criticism and theory.* 4th ed. New York: Longman.

David, Matthew. & Sutton, Carole D. (2016*). Samhällsvetenskaplig metod*. Lund: Studentlitteratur

Genette, Gerard (1997). *Paratexts: thresholds of interpretation.* Cambridge: Cambridge University Press.

Hall, Stuart. (2013). *Representation*: London : SAGE, 2013, 2. ed.

Iron Gate Studios (2021). *Valheim* [Digital game]. Iron Gate.

Janks, Hilary (2010). *Literacy and power*. London: Routledge. Janks, Hilary (2014). *Doing critical literacy. Texts and activities for students and teachers*. London: Routledge.

Korten, David (2006). *The great turning: from empire to earth community*. San Francisco: Berrett-Koehler.

Kress, Gunther R. (2004). *English in urban classrooms : a multimodal perspective on teaching and learning*. New York, NY: RoutledgeFalmer.

Kress, Gunther & van Leeuwen, Theo (2006). *Reading images: the grammar of visual design*. 2nd ed. London: Routledge.

Magnusson, Petra (2014). *Meningsskapandets möjligheter: multimodal teoribildning och multiliteracies i skolan* [elektronisk resurs]. Diss. Malmö högskola. http://muep.mau.se/handle/2043/17212

Mogensen, F., & Schnack, K. (2010). The action competence approach and the 'new' discourses of education for sustainable development, competence and quality criteria. *EnvironmentalEducation Research*, 16(1), 59–74.

https://doi.org/10.1080/13504620903504032

Nordén, B. (2018). Transdisciplinary teaching for sustainable development in a whole school project. *Environmental Education Research*, 24(5), 663–677.
https://doi.org/10.1080/13504622.2016.1266302

Olin-Scheller, Christina (2006). *Mellan Dante och Big Brother: en studie om gymnasieelevers textvärldar* [elektronisk resurs]. Diss. Karlstads universitet.
http://urn.kb.se/resolve?urn=urn:nbn:se:kau:diva-474

Olin-Scheller, Christina & Tanner, Marie (2018). "'Den heliga skönlitteraturen och det uppkopplade klassrummet". In: Nordenstam, A. & Parmenius Swärd, S. (ed) SLÅ 2018 *Digitalt,* s. 151–166.

Ripple, William J, Wolf, Christopher, Gregg, Jillian W, Levin, Kelly, Rockström, Johan, Newsome, Thomas M, Betts, Matthew G, Huq, Saleemul, Law, Beverly E, Kemp, Luke, Kalmus, Peter & Lenton, Timothy M, World Scientists' Warning of a Climate Emergency 2022, *BioScience*, 2022; biac083,
https://doi.org/10.1093/biosci/biac083

Sjödén, Björn (2018). "Från läroböcker till digitala läromedel – nio frågor på vägen. In: Nordenstam, A. & Parmenius Swärd, S. (ed) SLÅ 2018 *Digitalt,* s. 60–82.

Steam (2022). Valheim. [Retrieved 2022-05-31]
https://store.steampowered.com/app/892970/Valheim/

Stibbe, Arran (2019). "Education for sustainability and the search for new stories to live by". I: J. Armon, S. Scoffham, and C. Armon, eds. *Prioritizing Sustainability Education: A Comprehensive Approach*. London: New York: Routledge, s. 233–243.

Stibbe, Arran (2021). *Language, Ecology and the Stories We Live By*. 2nd ed. London: Routledge.

Swedish National Education Agency (2011). Läroplan för gymnasieskolan: Reviderad 2017. [Retrieved 2022-05-31]
https://www.skolverket.se/publikationsserier/styrdokument/2011/gymnasieskola-2011

Swedish National Education Agency (2020a). *Multimodal teori stärker eleverns meningsskapande.* [Retrieved 2022-05-31]
https://www.skolverket.se/skolutveckling/forskning-och-utvarderingar/forskning/multimodal-teori-starker-elevers-meningsskapande

Swedish National Education Agency (2020b). *Multimodalt berättande inspirerar elever och lärare.* [Retrieved 2022-05-31] https://www.skolverket.se/skolutveckling/forskning-och-utvarderingar/artiklar-om-forskning/multimodalt-berattande-inspirerar-elever-och-larare

Thavenius, Jan. (1999). *Svenskämnets historia*. Lund: Studentlitteratur.

Uhrqvist, O., Carlsson, L., Kall, A. S. & Asplund, T. (2021). Sustainability Stories to Encounter Competences for Sustainability. Journal of Education for Sustainable Development, 15(1), 146–16

Valheim, 2022. https://www.valheimgame.com/ [Retrieved 2022-05-31]

Valheim, 2022. Wiki. [Retrieved 2022-05-31] https://valheim.fandom.com/wiki/Valheim_Wiki

Wessbo, S. & Uhrqvist, O. (2021). Bildning för hållbar utveckling och dess potential för svenskämnets undervisning. *Forskning om undervisning och lärande*, 9(3), 6-27.

White, L. (1967). The Historical Roots of Our Ecologic Crisis. Science, 155(3767), 1203–1207. http://www.jstor.org/stable/1720120

Wiek, A., Withycombe, L. & Redman, C. L. (2011). "Key competencies in sustainability: a reference framework for academic program development". *Sustainability science* nr. 2, 203–218.

Wiek, A., Bernstein, M.J., Foley, R.W., Cohen, M., Forrest, N. Kuzdas, C., Kay, B. & Withycombe Keeler, L. (2015). Operationalising competencies in higher education for sustainable development. In: Barth, M., Michelsen, G., Rieckmann, M. & Thomas, I. *Routledge handbook of higher education for sustainable development*, 241–260. Routledge: London and New York.

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