

Interdisciplinary Instruction: Between Art and Literature

Nitza Davidovitch¹ & Ruth Dorot¹

¹ Ariel University of Samaria, Israel

Correspondence: Nitza Davidovitch, Ariel University of Samaria, Israel

Received: March 29, 2020

Accepted: April 20, 2020

Online Published: April 21, 2020

doi:10.5430/ijhe.v9n3p269

URL: <https://doi.org/10.5430/ijhe.v9n3p269>

Abstract

This paper explores the developments and trends in higher education from a pedagogical perspective (specifically, multidisciplinary curricula) and research perspective (the interdisciplinary approach), and traces them from a last resort option to their recognition as a legitimate development with added value. The paper focuses on a case study that integrates two disciplines, art and literature, based on the poem by the Israeli poet Rachel entitled *My Book of Poems* and the painting *The Scream* by Norwegian artist Eduard Munch. The interdisciplinary approach opens up possibilities of enriching, expanding horizons, and breaking boundaries, and can grant graduates of the higher education system a cultural perspective suitable for the current generation of students, who typically use multiple interactive media and platforms, often simultaneously. This paper may shed light on teaching and learning of many diverse fields. The case study illustrates the joy of interdisciplinary learning and its academic benefits, despite the fact that for years, higher education institutions have tended to refer to researchers' specializations in specific academic disciplines. This case study may serve as a model or source of inspiration for multidisciplinary learning involving motifs and topics that traditionally represent specific disciplines.

Keywords: higher education, interdisciplinary approach, cultural perspective, interdisciplinary learning

1. Introduction

The concept of multidisciplinary entered higher education discourse in Israel in the mid-1990s, with a decision to accredit academic colleges in addition to research universities. Academic colleges were accredited to grant undergraduate degrees independently, without the sponsorship of a parent university, and their degrees were recognized by the Commission of Higher Education (CHE) according to Section 8 of Amendment 10 [Colleges] to the Commission of Higher Education Law 5755-1995. This move transformed the face of academia forever, resulting in high demand for higher education in Israel. Opening the gates of higher education to private and public colleges was part of the government's earlier efforts to increase access to higher education for all citizens. For specific population groups, however, these efforts had been insufficient to guarantee access to academic education. As a result of the accreditation of academic colleges, these institutions began to develop undergraduate degree programs that were known as "General BA programs." These programs had existed previously in research universities even before the accessibility reform, but the academic colleges refined and appropriated these programs to enhance access. These programs, which had previously suffered from low status and appeal, underwent a marketing-oriented "face-lift" and were rechristened "multidisciplinary programs." They offered a new approach to learning—learning a little about a wide range of fields. What began as the academic colleges' efforts to attract potential students/consumers became a popular program in high demand. Moreover, the universities also began to revive their efforts to market their own previously undervalued "general knowledge" programs, highlighting them by adopting the new, shiny label. Concurrently, and independently of the penetration of multidisciplinary, academic discourse was undergoing a paradigmatic shift toward an interdisciplinary approach. The interdisciplinary approach speaks to the transcendence and obliteration of traditional disciplinary boundaries (Klein, 1990) to create a new shared field of two or more bodies of knowledge. The terms interdisciplinary and multidisciplinary were frequently used interchangeably and often incorrectly.

2. Multidisciplinary Curricula Through the Lens of Research Literature

Multidisciplinary curricula are academic programs that provide a broad academic foundation to students. Rather than specializing in a single field, students study a broad range of topics concurrently. Learning in a multidisciplinary format entails that academic institutions refrain from determining a fixed and final list of subjects and fields that comprise an agreed-upon bundle of study units. Multidisciplinary learning makes it possible to introduce topics that

are typically excluded from conventional programs, without the procedure that is traditionally required when introducing new study units into an academic discipline. It has been argued that the establishment of multidisciplinary programs reflects higher education's response to social changes and its exploration of its role as an agent of socialization (Davidovitch & Yavich, 2015; Rubinstein, 2001) because multidisciplinary programs give institutions flexibility in presenting contents and messages related to students' personality development and in adapting contents to the rapidly changing labor market, and provide opportunities to reduce social disparities and increase equal opportunities in society.

Multidisciplinary programs first emerged four decades ago. These programs, which began as a trickle, became a steady flow in the academia. In the United States for example, the annual number of graduates of multidisciplinary programs was 7,000 in 1973, and this figure soared to 30,000 in 2005 (Levitan, 2011). Even programs that are not considered to be purely multidisciplinary include multidisciplinary courses. A survey of US institutions of higher learning found that 40% of the faculties offer at least one multidisciplinary course (Lindlom, Astin, Sax, & Korn, 2002).

Notwithstanding these figures, the opposite trend can also be found in the United States: For example, Arizona International, the multidisciplinary school at Miami University, and the multidisciplinary department at Wayne State University were closed despite reasonable and even high levels of demand. In other institutions such Appalachian State University and George Mason University, multidisciplinary program suffered budget cuts. It has been argued that the reason for the closure or contraction of these departments can be attributed to the domination of the traditional disciplinary approach over the multidisciplinary approach (Davidovitch & Soen, 2005; Henry 2012).

3. Multidisciplinary – From Last Resort to Legitimacy

In Israel, multidisciplinary programs emerged with the establishment of academic colleges, which developed multidisciplinary programs for students and potential students. The programs initially suffered from the stigma of supposedly targeting students who lacked the capacity to specialize in a single discipline at a research university. Initially, the programs were known as “general study programs”—a label that was granted with the aim of removing their stigma. While these programs were first developed in the social sciences and humanities, today they are available in many other fields. Multidisciplinary programs are typically flexible and include a concentration in one or more fields in addition to courses and course clusters in a diverse range of fields. The multidisciplinary approach, which was previously an option of last resort for students who were otherwise unable to earn a degree, became quite popular in Israel. The multidisciplinary programs of Bar Ilan University and its sponsored colleges (Ashkelon, Western Galilee, Jordan Valley, and Zefat) alone had 14,870 students between 2001 and 2007. This trend spread from the colleges to the entire academic world, which now offers a wealth of multidisciplinary programs. For example, Tel Aviv University offers multidisciplinary programs in diverse fields including art, religious studies, and computational linguistics. Ben Gurion University offers programs that integrate the humanities and life sciences, management and safety engineering, and a program that combines social sciences, natural sciences, and humanities. The Hebrew University offers a multidisciplinary degree program in social sciences and humanities, art, psychology, education, and other fields. Similar programs are also found in other institutions that joined the multidisciplinary turn. Despite the significant role that multidisciplinary programs play in the academia, the academic approach and the multidisciplinary approach to academic teaching and learning remain fundamentally different.

4. Academic Disciplines and Multidisciplinary - Complementary or Mutually Exclusive?

The multidisciplinary approach stands in contrast to the academic approach that calls for precision, detailed knowledge of specific topics, references to sources and researchers' opinions, and “dry” scientific facts without “distractions” that potentially enliven learning (Davidovitch & Yavich, 2015). The multidisciplinary approach can be viewed as a dictate of the current circumstances, but this approach can also be considered a challenge for educators who must skillfully juxtapose diverse topics and dimensions related to essential concepts, make generalizations, and invest much learning to become knowledgeable in such a broad range of fields. We must recognize that the number of Renaissance men or women who are esteemed intellectuals is on the decline. Nonetheless there is a linkage between the multidisciplinary approach and the academia— they persist in parallel, and this position is gaining support. The multidisciplinary approach is largely a response to students' great thirst for knowledge on the topics they hold dear (Shiller, 2009).

The academia and multidisciplinary are largely contrary in nature. While multidisciplinary programs integrate a wide range of fields of knowledge, the academia naturally focuses on narrow specialization, and this trend has intensified over time. To achieve academic success, which take the form of recognized status, research budgets, promotions, prestige, and publications, there is no escaping specialization and “knowing more and more about less and less,” as a

result of ever-expanding human knowledge that is available to us. All types of universities are engaged in an accelerated process of specialization in increasingly narrow fields, and only in these are innovations possible. In view of this process we can understand the academic world's reservations over multidisciplinary programs that encompass diverse topics in a range of fields, which are considered contrary to the academic spirit that privileges narrow specialization (Shiller, 2009).

Today, in the west in general, and specifically in the United States, colleges are at the bottom of the academic pyramid, as are general undergraduate liberal arts or science degree programs. The aim of these programs is post-secondary education, allowing students to gain familiarity with basic concepts in science disciplines, practice reading scientific materials, even at a basic level, and to gain experience in scientific writing based on data collected from authoritative sources (including proper citations), and in composing structured essays that include students' personal conclusions.

This is the stage of learning how to read and understand what one is reading. At this stage and the next stage (certification studies), the academic institution wishes to teach students two additional skills: how to specialize in the "rules of the game," and the research methods of a specific discipline, including the ability to critically ask logical and well-defined research questions (not necessarily only in that same discipline). In the third stage, the academic institution is expected to train students to perform independent research, that is to say, to develop the ability to ask questions, formulate a structured research program for seeking the answer, and develop tools to control for the quality and validity of the results. These skills may be developed in a field that becomes ever narrower as the student progresses and "delves deeper" into the topic. Specialization, however, is not an inevitable outcome and certainly not the sole outcome.

Recently, an increasing number of institutions in the west and in Israel have a marked multidisciplinary nature. This tendency has not been free of objections, even vitriolic criticism, malicious contempt, and derision from longstanding academics who consider themselves the gatekeepers of "serious" scientific research traditions. Nonetheless the CHE is approving an increasing number of such programs. In the west today there is a clear and urgent need for high standard academic training of scientists who work on the complex interplay of man-environment relations, a growing need for academic graduates that have a broad knowledge foundation and judgment in areas that are outside a specific professional field. The instinctual response of many academics is that this trend will necessarily lead to amateurism and shallowness. But that necessarily the case? Is understanding conditional exclusively upon specialization?

5. Multidisciplinary or Interdisciplinary

While the multidisciplinary approach refers to combinations of disciplines, in which the distinct methodologies and assumptions of each discipline are maintained, the interdisciplinary approach concerns the crossing of traditional disciplinary boundaries (Kelin, 1990) toward the creation of a new field shared by two or more bodies of knowledge. The aim of the interdisciplinary approach is to create a cognitive advantage that is not likely to be achieved through a disciplinary approach (Boix Mansillar & Duraising, 2007; Davidovitch & Soen, 2012).

The academic divisions into disciplines in modern western universities have roots in the late nineteenth century (Stein, 1991), when universities underwent a process of secularization and established disciplines as branches of learning or research, which are defined by institutional boundaries that are created according to the requirements of study, administration, funding, and professional development (Bracken & Oughton, 2006, p. 372). Over time, the understanding that professionalism and scientification takes within a discipline has caught traction, that is to say, the belief that only focus and concentration yield professional scientific knowledge (Manicas, 2007).

Despite the dominance of the disciplinary approach to knowledge, we now can identify a paradigmatic change and shift to an interdisciplinary approach to knowledge in Israel (Shenhar, 1999) and worldwide (Holley, 2009), where it arguably has reached unprecedented popularity (Catney & Lerner, 2009). Adoption of a new approach to knowledge, research, and teaching is a reflection of cultural and social changes in western society, and also affected the higher education system and triggered a conceptual change that reflects the fact that something is happening in the way people think about how they think (Geert, 1982).

Today more than ever, institutions of higher learning must create and produce interdisciplinary knowledge (Pfirman, Collins, Lowes & Michaels, 2005). Proof can be found in the extensive attention to and generous funding granting to interdisciplinary fields of research including nano-technology, molecular biology, AIDS, and gender studies (Levitan, 2011). This demand requires higher education to maintain interdisciplinary activities, adopt an innovative approach, and make active efforts to change the practices of the past.

There is an inherent contradiction between the traditional academic approach and the changes that are occurring in the world of knowledge (e.g., Lattuca, 2001). Researchers involved in interdisciplinary activities must accept the possibility that their activities may disconnect them from the traditional disciplinary community in which they are professionally involved. Furthermore, by doing so they might risk their own professional prestige and legitimacy, which are powerful forces that have a formative impact on the professional lives of faculty members. It therefore appears that faculty members who identify with the academia and aspire to advance in the ranks, find themselves in a dilemma: On the one hand, they are required to conform to the organizational norms of the academic, yet on the other, they recognize the fact that research within a single discipline potentially limits their range of movement.

The reason lies in the fact that academic success today depends on a researcher's ability to progress within her own discipline. This success is what determines the various elements related to her academic position: tenure, promotions, and research grants. Professional legitimacy in the academia is embedded entirely in disciplinary specialization, and researchers are required to develop skills in a specific area of knowledge (Interdisciplinary and Practice Research, 2009).

In contrast to the academia, which as not yet said the last word on its attitude toward interdisciplinary, interdisciplinary has come into high demand in the industrial world and in scientific associations (Rhoten, 2004). The differences between requirements in the academic world and in the world outside the academia have created a paradoxical situation in which "specialization has become more of an institutional requirement than an intellectual requirement" (Caruso & Rhoten, 2001, p. 7). This issue creates some problematics because faculty who wish to engage in interdisciplinary work cannot do so in a vacuum—they need a supportive, collaborative, resourceful academic environment (National Academy of Sciences, 2004), one that will encourage and allocate resources to interdisciplinary activity.

Where efforts to maintain interdisciplinary research were successful despite the inherent challenges, achievements have been interesting. For example, Tucker (2008) studied the nature of interdisciplinary doctoral studies compared to disciplinary studies in the field of social work and social sciences. He sampled data over a 13-year period and found that students in interdisciplinary doctoral programs ultimately demonstrated a stronger research orientation and higher levels of research productivity. It has been argued that in order to assimilate the interdisciplinary approach in both research and in curricula, a deep change is needed not only in the division of labor within institutions of higher learning but also in the organizational culture of academic institutions (Holley, 2009). In this context, one of the difficulties of instilling an interdisciplinary approach in the academia is the lack of certainty of the desire and ability to change the existing division of disciplines of knowledge (Sufen, Hsu & Wsu, 2009).

In all respects, adopting the interdisciplinary approach as a research approach remains a distant goal. Apparently, significant research of that type on a large scale requires an academic consensus as well as a transformation of the organizational structure and norms of higher education institutions. For such a transformation to happen, the academia must climb down from its ivory tower and recognize the changes occurring before its very eyes. As it seems today, interdisciplinary study is the world of tomorrow: academic institutions should recognize and join this trend or otherwise be left behind. However, there is no denying that in order to be interdisciplinary, students and researcher must first be disciplinarians, but there is no contradiction between the two..

It is no secret that traditional frontal teaching is in a quandary. Flickering, frequently changing screens constitute serious competition for instructors in the classroom. Postmodern students seek continuous stimuli and innovations that will facilitate their understanding, recall, and learning. Students surrounded by technological marvels especially seek experiential learning that activates their senses. Such expectations are widespread among students in general, and especially among students who study text-intensive subjects.

The aim of the current paper is to shed light on these close and distant concepts, and to review the pedagogical and research developments and trends occurring in the education system (multidisciplinary curricula and the interdisciplinary approach to research). To highlight the joy and added value of interdisciplinary learning, we illustrate these terms using a learning module that compares two disciplines—literature and art— and illuminates literature by means of visual plastic arts. In addition to the current distance between young students and reading in general, not to mention reading poetry in particular, we seek here to demonstrate the immediate visual advantages of paintings over words. The latter might be ambiguous, hard to understand, confusing, and perhaps even capable of diverting the reader from the original intention due to the time necessary to read them. The comparison between paintings and written text clarifies and focuses what is being said, even when the poet uses verbal clarifications.

6. Interdisciplinary Teaching: Between Literature and Art

The interdisciplinary teaching method is one way to combat the illnesses of traditional teaching: It is creative and suitable for all fields and especially the humanities, including literature and art, Bible and literature, history and art, music and art, and the history of architecture and art. The zeitgeist is the initial and natural trigger for interdisciplinary comparisons that typically originate in a common topic, artistic style, or literary-artistic genre.

The interplay and mutual effects between the arts, and a comparison between them, illuminate various phenomena in these fields. They capture and expand one's interest and are especially appealing to the art researcher. The ties between literature and other arts, and especially between painting and poetry, are well known. Sometimes an artist may work in multiple artistic media: an author may also be a painter, a musician may also be an author or a playwright, etc. The mutual effects are generated as the result of the milieu in which artists work and from which the works of art emerge. These natural ties evolve in a single location or close geographic locations concurrently. The spirit of the times and its topics, together with influences from the worlds outside literature and art, will find expression in the artistic works, in the artists, and in the connections between them. The connection between the arts is a dialectical one that is accompanied by a dynamic of connection and detachment, consolidation and isolation, in which each art is highlighted on its own merits: "Maybe tension fertilizes the unity and division of arts? On the one hand [there is] the accepted historical separation: a theater critic is not a music critic or a painting critic or a dance critic, etc. Accordingly, the audience of one medium is typically different from the audience of another medium. The media's spaces are also defined separately: the gallery and the museum, the theater hall and the concert hall... Yet, on the other hand, in real life the situation is different: there are concerts in museums, singers on the roofs of Tel Aviv Museum... The Pompidou Center in Paris is a center for all arts and a model for other museums all over the world... We say: dialectics, paradoxical and Janus-faced truth" (Ofrat, 1986, p. 6). Throughout history, the arts have encountered each other and especially aspired to grow closer to literature. Prominent examples include the Psalms, which are attributed to King David and were sung in the Temple by the Levites, and the illustrations of the Bible. Opera is another example of the connection that binds the arts. More than any other artistic genre, opera encompasses a perfect union of written text, theater, music, and visual arts (scenery). This is the reason for the question on the consolidation or division of arts. "Is there any logic to this dialectics? Yes, Buber taught us that flourishing culture consolidates the arts, while cultural decay divides them" (Ofrat, 1986, p. 9).

To understand the connections between literature and plastic arts, we should first recognize their similarities and differences: they are the art of time and the art of space. Guttold Ephraim Lessing (1766/1983) was one of the first prominent critics who contemplated these distinctions in his volume *Laocoon: An Essay on the Limits of Painting and Poetry*.

Art in time depends on an action on the time continuum, while art in space depends on simultaneous events in space. In the temporal arts—literature, music, and dance—actions stem from each other in succession, while spatial arts—architecture, painting, and sculpture—describe objects that we perceived through our senses at various independent points that are not necessarily consecutive. Nonetheless, a painting can create a sense of an active event even though it is static, while a story may describe static objects even though it is dynamic.

Temporal arts are the arts of time: they are dependent on time and represent a process that is subject to the three general principles of time: continuity, commutativity, and irreversibility. That is to say, the words must be read or the musical notes must be played only in a specific sequence. In a poem, for example, a sense of completeness results as a cumulative product of continuous reading. In temporal arts, the viewer perceives the entire work only after having experienced its gradual unfolding, and only then the picture is perceived by the viewer's eye and consciousness simultaneously as a whole. In contrast, the arts of space are perceived by the viewer as a single unity: a work of this type of art gives itself in entirety to the viewer at the beginning of the connection between them.

Some have expressed reservations about this distinction by arguing that the viewer is in effect unable to grasp the totality of spatial arts at once— all the sections of the painting, the aspects of the sculpture, or all the elements of the architectural work. In this respect, spatial arts are similar to temporal arts, yet this feature is especially salient in the latter.

The comparison of arts has attracted much interest: According to Lessing (1766/1962), man was the first creature to compare painting and poetry, and both types of art had an almost identical effect on him. Man felt that both genres represent things that are both present and absent, and that both are illusions. The issue of comparing the arts has been studied extensively and finds expression in numerous essays, each of which adds another layer to our understanding. In this context, the well-known Latin phrase "ut picture poesis" is applicable (Praz, 1970).

Research has shown that a comparison of the arts expands and adds a new dimension to human understanding, as it alludes both directly and indirectly to connections and aspects that would have otherwise remained concealed. It creates a synthesis—a conceptual and stylistic whole. As Lessing (1962) noted, for some, poetry might clarify one's understanding of a painting while for others, a painting may add clarifications and illustrations to a poem.

Dovey (1982) emphasizes the added value of an education in aesthetics: "It allows one to gain experience in judgment values... it develops aesthetic sensitivity that should pave a way toward moral sensitivity... it contributes to the development of a complete person and may expand the range of her emotional sensitivities, which contributes to empathy and an awareness of human brotherhood..." (p. 15).

The ideal genre for illustrating the reciprocal relations between the arts is ekphrasis, which is a description of a visual essence through a textual essence. Ekphrasis is a representation of a representation, both mimetic arts, such as a poem written about a work of plastic art—a painting or a sculpture. This connection is possible in several ways: a basic or close textual description of the work; a poetic interpretation of a work of plastic art; or a state in which the painting or sculpture is the source of inspiration, leading one to close, remote, or even contrasting fields.

One of the most well-known examples of ekphrasis in world literature are the poems by Wislawa Szymborska, *Two Monkeys by Brueghel* and *Vermeer*. Ekphrasis also is found in Hebrew literature, for example in the poems by Tuvia Rivner on the works by Peter Brueghel and Marc Chagall on the fall of Icarus.

In Bram's (2011) volume *The Ambassadors of Death* on the collection of poetry by Tuvia Rivner, Bram discusses and analyzes the genre of ekphrasis. A painting that was known to inspire a famous author is Vermeer's *View of Delft*—a portion of the illuminated yellow wall in this painting appears in the memoirs of the protagonist of *In Search of Lost Time* by Marcel Proust.

Illuminating literature through the art of painting deepens the learner's intellectual, emotional, and experiential understanding and enjoyment. The comparison of poem and painting create synesthesia: a mixture of senses. The experience of synesthesia enhances the learner's feelings. In his well-known poem *Correspondence* in the collection *Les Fleurs du mal*, the important French modern poet Baudelaire discusses this phenomenon. Comparisons also expand the learner's horizons and develop the learner's personality and general knowledge. In this paper we illustrate an interdisciplinary learning module that involves Hebrew literature and plastic arts: the poem *My Book of Poems* by the Israeli poet Rachel, juxtaposed with *The Scream*, a painting by Norwegian artist Eduard Munch.

My Book of Poems

Rachel (translated from Hebrew by Nadavi Noked)
Screams I've been screaming, despaired and in anguish
in dire times of loss and distress
became lovely medleys of words I could cherish
My white book of poems, their rest
Unveiled were the veils guarding even from dearests
Exposed were my fiery seals
and griefs of the heart crouching over the secrets
indifferent hands can now feel

My Book of Poems is an ars-poetic poem: the poetic art of the self. This genre refers to poetry about the art of poetry, its sources of inspiration, the reasons for writing the poem, the audience's critiques, the poem's reception, etc. In contrast to the conventional separation between the speaker and the poet, in an ars-poetic poem, the speaker and the poet are typically one and the same.

The poem *My Book of Poems* opens Rachel's second volume of poetry *Mineged [Opposite]* published in 1927 and as such it represents a kind of credo that characterizes her poems. The poem's two verses describe the work of poetry writing, emphasizing the problematics of the written word. The writing process described in the first verse is difficult and recalls the pains of labor that nonetheless produce a beautiful volume of poems: a pure, clean, white book. Even the most difficult experience can convert into an aesthetic appearance when translated into a work of art, due to the rules of the various branches of the arts and the catharsis that the work of art evokes in the reader or viewer.

The second verse reveals the sources of her poetry. They originate from her personal, intimate inner world and her experiences over the years. These are obviously concealed even from her closest friends, but from the moment that

the poem leaves her possession to its readers, the public, they can read her work quietly and unhurriedly, and can do so even if they are indifferent and their lack of caring is annoying and painful. The outcome is the birth of things that stand in contrast to the speaker and her inner world. The distortion of the speaker's intentions places her in a double bind:

Contrast and rift between "I" and the word:

*Screams I've been screaming, despaired and in anguish
became lovely medleys of words I could cherish*

Unfathomable contradiction between "I" and "everyone:

*and griefs of the heart crouching over the secrets
indifferent hands can now feel*

That the word is both weak and has multiple meanings frequently creates misunderstandings or even distorts the speaker's intentions. To explain herself and convey her message, the poet uses the range of artistic tools available to her, including:

Alliteration: This artistic tool is prominent in the original language of the poem. In the translation, the repetition of the "s" sound generates a sense of disquiet and dissatisfaction as we hear this sound.

Discontinuous rhyming (in the Hebrew original, lines 2 and 4 also rhyme). In the translation we observe a type of alternate rhyming:

1-3
2-4 (do not really rhyme in the translation)
1-3
2-4 (do not really rhyme in the translation)

Alternate rhyming such as this creates contrasts that highlight the speaker's dilemma.

To this, the poet adds a lexical system of contrasts that are dispersed throughout the poem and help the speaker convey her pain and conflict:

*Unveiled- Exposed, veil- seals,
My (I) indifferent hands (all)*

Contrasts are also created through the use of color, which is also an artistic means designed to reinforce the limited power of the words:

Fiery seals-white book

The fiery colors of red, orange, and yellow, originating from the fire, are a contrast to the book's quiet whiteness.

The speaker complains of words, her main work tool as a poet, for being "merely" words: Frequently they are too weak to convey the force of her experiences, but because of their multilayered nature and multiple meanings, words reveal too much, and what is even worse, they distort the poet's intentions. This is the paradox of the words that are expected to function as the poet's mouthpiece.

To clarify the speaker's challenge in this poem, we present the famous painting *The Scream* by Edvard Munch. We can compare the two screams to determine which scream sounds louder and more compelling.

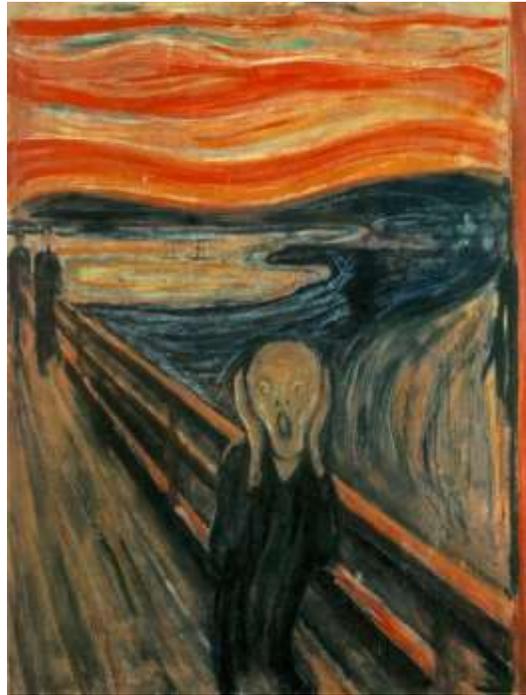


Figure 1. Oil, tempera and pastel on cardboard, 91 X 73.5 cm, Nasjonalmuseet, Oslo

In his works, Edvard Munch (1863-1944), the artist of the roaring silence and one of the heralds of expressionism, directly confronted issues related to the depth of emotions and the psyche, and painted symbolic paintings dominated by pessimism and a tragic atmosphere. He sought to convey on the canvas a psychological perspective that penetrates into the subconscious.

His iconic work *The Scream* (1893) sparks many questions: Is it night or day? Is this a man or a woman? These questions remain unanswered. The time in the painting and the screamer's gender are unclear and express a universal sense of loneliness. Through the echo that reverberates in nature, this work gives expression to a scream of alienation, suffering, existential anxiety and the torments of life in the modern world experienced by all persons in all places and times. The strong sense of alienation from society is represented by the distant couple on the bridge, and the couple in the boat that appears blurred in the background. Munch's scream is expressed in waves of color and his powerful expressive technique is embodied in his lines. It is the scream of inner silent truth, and the deep dread stemming from the enormous sweeping despair, creating a synesthesia of voice through form, color, and light.

The figure twists and turns, it screams against a red sunset and black water, and the scream appears to slide downward. Since it is located at the bottom, at the edge of the bridge in proximity to the viewer, and a space is created between the top of its head and the upper boundaries of the landscape, the figure appears small and terrified. The bridge appears to be unstable and is sliding downward, as if the earth is disappearing underneath the main figure's feet, while behind the figure; everything appears upright and more stable.

The nature surrounding the figure—the sky, the shore, and the sea—twists and resonates alongside the figure through the voice that produces the scream. In the distance two figures walking away slowly in the opposite direction on that very same bridge: They are unaffected by the drama taking place behind them. The gap that is created between the twisting of the main figure and the landscape and the upright quiet figures in the background clarifies that the scream is happening in the main figure's soul, and the distorted nature expresses pain that is internal rather than an objective situation.

The face of the screamer on the bridge is located at the edge of the bridge – the danger of falling is emphasized by the bright red rails that are so distorted as to have become part of the sound waves in the background. The screamer's face appears as a skeleton's mask: its eyes, mouth, and nose are hollow black holes, and he/she is overwhelmed by anxiety, panic, and terror.

The hands of the skeletal figure, which are excessively large, are the source of the sound waves and the source of the scream, and they intensify the ripples that spread out from the core of the figure's mouth through its skull. The long

curved shape of the hands also corresponds to the sound waves that explode powerfully and spread through the universe. Through this explosion and the bright dramatic contrasting colors—the colors of the sunset—Munch expressed the deep feelings of man as a lonely creature, a universal experience of despair, with no exit, a sense of entrapment, an atmosphere of nightmares and terror, of man subject to the whims of the supreme forces of nature. The hand gesture signals mourning, adds to the insufferable situation. The figure's naked arms hold its face in terror and close its ears to isolate it from the screeching frequency of the internal scream that is produced and spreads through space. Since the scream is produced by an internal source, the hands are unable to block or weaken it. No external mechanism can overcome the deafening noise of the scream.

Both in Rachel's poem and in Munch's painting, the artist and the screaming individual are one and the same. In his journals, Munch describes the events that prompted him to create his dramatic painting. He recounts how he walked along a path with two friends, with the city to one side of them, and the fiord to the other. Their walk took place around sunset, when Munch was suddenly overwhelmed by a sense of sadness. The red skies seemed like blood to him and made him stop in his tracks. He stood on the bridge, too fatigued to move. He felt a scream roar through nature – it was as if he heard it. He looked up at the burning skies hanging over the blue-black fiord and the city. His friends walked on but he continued to stand on the bridge, shaking with anxiety as the infinite scream punctured nature. As recounted that he then sat down to draw this painting, with the clouds red as blood, and he felt the scream coursing through the colors (Eduard Munch, Journals, January 22, 1892, Art Institute of Chicago).

7. Conclusion

In summary, the comparison between the two screams illustrates the weakness of the word. The visual scream in Munch's painting conveys this message clearly and powerfully, while the poet, though using a range of artistic tools, retains a sense that she is not entirely understood or possibly misunderstood completely. It is a well-known adage that a picture is worth a thousand words. The visual medium conveys the painter's message directly and immediately.

This comparison offers students an experiential learning opportunity in which they are exposed to an iconic painting from the treasures of western culture, and a poem taken from Israel's literary canon. The learning experience is enhanced by the interdisciplinary comparison of the two.

This example may serve as a model or inspiration for interdisciplinary learning of motifs and topics that traditionally represent specific disciplines. The interdisciplinary approach creates an opportunity for enrichment, allowing students to broaden their horizons and break through traditional boundaries, and exposes graduates of the higher education system to a cultural perspective that is appropriate for our current multi-channel generation. This paper, then, can contribute to learning and teaching in a wide range of subjects. In fact, this interdisciplinary example also supports the professionalization we pointed to in the first part of the article, which is favored by the academic approach as well as by the wide and comparative approach. Knowledge of other disciplines in addition to those natural to the student might generate a new student and new learning.

References

- Boix Mansilla, V., & Duraising, E. (2007). Targeted assessment of students' interdisciplinary work: An empirically grounded framework. *Journal of Higher Education*, 78, 218-237. <https://doi.org/10.1080/00221546.2007.11780874>
- Bracken, L. J., & Oughton, E. A. (2006). What do you mean? The importance of language in developing interdisciplinary research. *Transactions of the Institute of British Geographers*, 31, 371-382. <https://doi.org/10.1111/j.1475-5661.2006.00218.x>
- Bram, S. (2011). *Ambassadors of death*. Brighton: Sussex Academic Press.
- Caruso, D., & Rhoten, D. (2001). *Lead, follow, get out of the way: Sidestepping the barriers to effective practice of interdisciplinarity—A new mechanism for knowledge production and re-integration in the age of information*. Hybrid Vigor White Paper. Retrieved from www.hybridvigor.net/interdis/pubs/hv_pub_interdis-2001.04.30.pdf
- Catney, P., & Lerner, D. (2009). Managing multidisciplinary: Lessons from SUBR:IM. *Interdisciplinary Science Reviews*, 34, 290-308. <https://doi.org/10.1179/030801809X12529269201129>
- Davidovitch, N., & Soen, D. (2012). Teaching civics and instilling democratic values in high school students - particularist (Jewish and Israeli) and universal aspects of formal and informal interdisciplinary curricula. In N. Davidovitch and D. Soen (Eds.). *The Holocaust ethos in the 21st Century – Dilemmas and challenges* (pp. 41-60). Krakow: Austeria.

- Davidovitch, N., & Yavich, R. (2015). Interdisciplinary programs focused populations: The case of health management program. *Journal of International Education Research*, 11(2), 71-86. <https://doi.org/10.19030/jier.v11i2.9188>
- Dovev, L. (1995). *Toward aesthetic education – A collection of essays*. Tel Aviv: Sifriyat Hapoalim [Hebrew]
- Geertz, C. (1982). The way we think now: Toward an ethnography of modern thought. *Bulletin of the American Academy of Arts and Sciences*, 35, 14-34. <https://doi.org/10.2307/3823993>
- Henry, S. (2005). Disciplinary hegemony meets interdisciplinary ascendancy: Can interdisciplinary/integrative studies survive, and, if so, how. *Issues in Integrative Studies*, 23, 1-37.
- Holley, K. A. (2009). Interdisciplinary strategies as transformative change in higher education. *Innovative Higher Education*, 34, 331-344. <https://doi.org/10.1007/s10755-009-9121-4>
- Interdisciplinarity and Practice of Research. (2009). *ASHE Higher Education Report*, 35(2), 59-74.
- Klein, J. T. (1990). *Interdisciplinarity: History, theory, and practice*. Detroit: Wayne State University.
- Lattuca, L.R. (2001). *Creating interdisciplinarity: Interdisciplinary research and Teaching among college and university faculty*. Nashville, TN: Vanderbilt University Press.
- Lessing, G. E. Locon. (1766/1962). *An essay on the limits of painting and poetry*. Translation: Eduard Allen McCormick (Baltimore and London: The Johns Hopkins University Press.
- Manicas, P.T. (2007). The social sciences since World War II: The rise and fall of scientism. In W. Outhwaite and S. P. Turner (Eds.). *The Sage handbook of social science methodology* (pp. 7-31). London: Sage. <https://doi.org/10.4135/9781848607958.n1>
- Munch, E. (2005). *The private journals of Eduard Munch: We are flames which pour out of the earth*. Edited and translated by J. G. Holland. Madison, WI: Wisconsin University Press.
- National Academy of Sciences. (2004). *Facilitating interdisciplinary research*. Washington, DC: National Academies.
- O'Connor, G., Rice, M. P., Peters, L., & Veryzer, R. W. (2003). Managing interdisciplinary, longitudinal research teams: Extending grounded theory-building methodologies. *Organization Science*, 14, 353-373. <https://doi.org/10.1287/orsc.14.4.353.17485>
- Ofrat, G. (1986). *The artistic medium*. Tel Aviv: Stavit. [Hebrew]
- Pfirman, S., Collins, J., Lowes, S., & Michaels, A. (2005). Collaborative efforts: Promoting interdisciplinary scholars. *Chronicle of Higher Education*, B15-B16.
- Praz, M. (1970). *Mnemosyne, The parallel between literature and the visual arts*. London: Oxford University.
- Rhoten, D. (2004). Interdisciplinary research: Trend or transition. *Items & Issues*, 5, 6-11.
- Rubinstein, Y. (2001). Disciplinarity, multidisciplinary, and the education between them. In C. Karniel and A. Bartana (Eds.). *Education and its environment* (pp. 73-90). Tel Aviv: Seminar Hakibbutzim College. [Hebrew]
- Shenar, A. (1999). The challenge of education in the postmodern age. *Makom Lemahshava*, 12. [Hebrew]
- Stein, M. B. (1995). Major factors in the emergence of political science as a discipline in Western democracies: A comparative analysis of the United States, Britain, France, and Germany. In D. Easton, J. G. Gunnell and M. B. Stein (Eds.). *Regime and discipline: Democracy and the development of political science* (pp.169-196). Ann Arbor, MI: University of Michigan Press.
- Sufen, C., Hsu, I. C., & Chien-Ming, W. (2009). Evaluation of undergraduate curriculum reform for interdisciplinary learning. *Teaching in Higher Education*, 14, 161-173. <https://doi.org/10.1080/13562510902757203>
- Tucker, D. J. (2008). Interdisciplinary in doctoral social work education: does it make a difference? *Journal of Social Work Education*, 44, 115-138. <https://doi.org/10.5175/JSWE.2008.200700043>