

Thirdspace: The Trialectics of the Real, Virtual and Blended Spaces

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Abstract

This article aims to redefine the concept of Thirdspace and make a trilateral relationship between the three concepts of real space, virtual space and the user. To do so, not only the concept of Thirdspace has to be redefined, but also a new understanding of virtual space as a relatively independent space is required. This three-sided relation requires a new understanding of the relationship between the body and virtual space. Special attention is paid to the role of the body in the relationship between the user and virtual space through a phenomenological approach. Borderline spaces– VR technology and video games such as Pokémon Go– which are resulted from the interpenetration of real and virtual spaces have been considered as the new edges of interaction between real and virtual spaces and they are on a constant rise. This article’s key question is if using the concept of Thirdspace, one could build a bridge on the theoretical gap between real and virtual spaces and better understand the confrontation of the user with real, virtual and borderline spaces as well as their lived experiences. The authors believe that the answers are positive. This understanding paves the way not only to help the users improve their life skills for today’s real-virtual world but also to manage the stresses caused by living in such surroundings.

Keywords: blended space, convergence theory, mental space, Thirdspace, virtual space.

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Introduction

For more than three decades now theorists have used concepts such as Thirdspace or similar concepts such as Popper's third world. Fauconnier should be duly mentioned as (see Turner, 1993; 1996; Fauconnier, 1994; 1997; Fauconnier & Turner, 2002) he introduced the concept of mental space as the third space in his cognitive theory. According to Fauconnier and Turner (2002), mental space is the space of schemas and cognitive mappings that facilitate behaviors in confrontation with the realities that are perceived. In the past decade, Bhabha (1994) and Soja (1996) two theoreticians of cultural post-colonial and urban studies have also used the concept of Thirdspace. According to Bhabha (1994), a colonized person or someone who lives in a diaspora does not live in either his native culture or in the colonial or host country. The colonized or immigrant person has a third culture which Bhabha calls the third space. To Bhabha this Thirdspace is a "hybrid" space that has the characteristics of the two cultures or the first and second space. This theory requires the actual conceptualization to understand and interpret literary and cultural products or the lifestyle of the immigrants in today's multicultural world.

On the other hand, Soja (1996) the contemporary theorist of urban studies has a similar understanding of the concept of Thirdspace. Soja (1996) has used the concept in his book called: "Thirdspace: Journeys to Los Angeles and Other Real-and-Imagined Places". To Soja at the view of the city from a skyscraper is the first space in mind. The view of the city using artwork (be it painting or other forms of art) provides the second space. At last, the space formed in the mind of a person who lives in the city is a result from their lived experience which forms the Thirdspace. This is in fact how Lefebvre (1991; 2004) puts forward his spatial triad: the perceived space; the conceived space; and the lived space. Lefebvre's lived experience and Soja's are similar to de Certeau's concept of *walking in the street* (1988). According to de Certeau the true experience or discovery of a city is gained after walking through its streets. In his book called *The Death and Life of Great American Cities*, Jacobs (1961) has used this very method to discover the city space. His descriptions of the city were results of living in different neighborhoods and wandering the streets, alleys and public places. He explains how a specific form of architecture has destroyed social life in American cities by constructing highways.

Bhabha and Soja's theories of Thirdspace have led to many works in the post-colonial and urban studies. However, this concept hasn't found a place in cyberspace, cyberculture (Bell & Kennedy, 2000; Bell, 2005;

2007) and other fields of study. This is while Thirdspace can be very important and useful in these research fields. In this study, we show that this concept not only provides a better and deeper understanding of the relationship between the real and virtual spaces but also better clarifies the relationship between the user and these two spaces and the way the user perceives them.

On the other hand, the concept of Thirdspace leads to understanding a new stage in the relationship between the user and new electronic devices (smartphones, digital games and virtual museums). Sitting in a taxi and using a cell-phone to manage tasks, are these tasks happening in the virtual space or the real space? When in the Pokémon Go game cell-phones and GPS systems are used to find and catch imaginary creatures, is this happening in the real or virtual world? One could answer such questions using a dualistic perception of the virtual-real space. Maybe when the internet emerged and the worldwide network was formed there were clear boundaries between real and virtual spaces and one could see a kind of distinction between them. But today there is an increasing convergence and interpenetration between them. Turkle (1997a; 1997b) has provided many examples of this interpenetration in children's lives and their games with new electronic toys, as well as issues related to identity in the new world. Her metaphor of *life on the screen* is very popular nowadays and with new technologies we can even speak of living in the virtual space (2010).

Convergence theories inspired by the theories of mental space and conceptual blending theory or conceptual integration theory (see Turner, 1993; 1996; Fauconnier, 1994; 1997; Fauconnier & Turner, 2002) have sought to converge in electronic devices or living spaces—home, leisure or work space—more than they paid attention to the user. But the most important convergence has taken place in the mind of the user, which is the formation of Thirdspace. This is a result of the development of electronic devices, and the fact that many daily activities are done through virtual networks. More importantly, the formation of Thirdspace in the user's mind is the result of the *mediation* of the user between real and virtual spaces.

In this article, in order to conceptualize the Thirdspace, Soja's conceptualization theory on this concept was employed. But it is not sufficient enough to comprehend the relationship between the user, reality and virtual spaces and the formation of a Thirdspace. Therefore, theories of mental space and Fauconnier and Turner's conceptual blending theory were used. The article takes a phenomenological approach and suggests a three-sided (trialectic) model regarding the

relationship between the user, reality and virtual spaces. In this model the first space is the real space; the second space is the virtual space; and the third space is the cognitive space, that has formed in the user's mind. This space is a blended space that has the characteristics of the other two spaces. It is in this space in which the user can manage his life in the two spaces and reduce the anxieties and stresses caused by switching between the real and virtual spaces. Thirdspace is in a sense a control panel which allows the user to mediate their interactions in the real and virtual spaces and switch from one space to another. With the expansion of the virtual space and interpenetration of the real and virtual spaces, the users' skills in managing their interactions in the real and virtual spaces will turn into an important issue.

Location, Space and Spatiality

Without getting involved in the theoretical debates on the definition of space, a pragmatic definition of place, space and spatiality is required. Fortunately, Lefebvre's theoretical works (1991; 2004) have provided a basis to define these three concepts. Lefebvre's well-received work (1991) in conceptualization of space, considers space, more than anything, a social construct. According to Lefebvre, three aspects of space should be distinguished. To him, the first space is a *conceived space*, the second space is a *perceived space* and the third space is the *lived space*. The first space is the result of the individual's interaction with the real space and their conception of this space. Conceptions such as far, close, up, low, north, south, distance, connections between locations, shortcuts and similar factors are the outcomes of our conceptions of the space. The second space is the result of the representations of the individual's perception. Representations of space in painting, literature, cinema, and other ways of representing space are the second dimension of space. Lefebvre calls this the representational space. Thirdspace is the lived space which is the result of the person's life in a space. At the same time, this space includes to two other aspects of space – conceived and perceived spaces. Lefebvre's conceptualization of space that can be called the trialectics of space has paved the way for other space theorists, from Harvey to Soja.

Space and Spatiality

Based on the theories by previous theorists such as Lefebvre, Soja (1996) accepts that space is a social construct that is formed based on location. Thus, space is a product of the society. On the other hand, Soja accepts Lefebvre's trialectic conceptualization of space. To Soja, any social formation (feudalism, capitalism) should be seen

from three perspectives: history, space and social relations. History is related to time, natural and historical phenomena, and anything that points to the construction of a social formation. Spatiality is the way human groups are organized in place and it is the relationships between nature, human and his artificial world. The third dimension is related to social relationships and the dynamics of production. To Soja, studying spatiality without its historical and social dimensions is futile and results in a kind of short-sightedness regarding space. Therefore, any human geography that discusses space regardless of history and social relationships would have an inadequate perspective. Thus, Soja encourages a trialectic approach between historicity, spatiality and sociality. Humans are simultaneously historical, spatial and social. Each of these three aspects has formed in relation to the other two aspects and it is only understandable by a triangular approach.



Figure 1. The three aspects of being (Gregory, D. et al. 2009: 776)

Soja believes that one should have a trialectic approach to space. To him, one should follow Lefebvre and distinguish between the three concepts of conceived space, perceived space and lived space. Conceived space is the geographical space in which our actions take place. Soja says this concept is what traditional geographers would be interested in. This is the space that refers to the place and distance between natural things (mountains, rivers and trees), artificial things (roads and buildings) and humans (groups of people). The second space or perceived space is a representation of the first space and its image in different forms – from maps to literary works and paintings. The last space that Soja dedicates most of his attention to is what he calls Thirdspace or the lived space. According to Soja, here a trialectics between the three aspects of space is coherent. It is obvious that this three-sided relationship between the

three aspects of spatiality cannot be understood without the other two aspects: historicity and sociality.



Figure 2. The trialectics of Spatiality (Gregory, et al. 2009: 776)

Fauconnier and Turner's Mental Space

Fauconnier (1994; 1997), Turner (1993; 1996), and Fauconnier and Turner (2002) who have spent more than three decades researching in the field of cognitive sciences suggest the concepts of mental space and blended space in several works. By mental space and blended space Fauconnier and Turner mean that an individual's understanding of different spaces leads to the creation of a new space which they call 'mental space' or 'blended space'. For instance, a mountaineer who climbed Mount Damavand in 2000 and Mount Everest in 2010, would have different perceptions of these mountains. Mind is capable of mixing the data gained from the two experiences and creating a blended space, called 'mental space'. Mount Damavand and what was experienced climbing it is the first input and Mount Everest and all that was experienced climbing it is the second input. The mind creates a mixed space using these two sets of data that can be called 'mental space' or 'blended space'. To Fauconnier and Turner (2002) Thirdspace is essentially made of schemas and cognitive maps which are responsible for the expansion of conceptual networks and the facilitation of behaviors in the real world.

The creation of allegories and metaphors also follow this logic because a metaphor is nothing but a connection between two things through similarities and extraction of a new perception. For instance, when one says that *life is like a box of chocolate* a connection is made between life as a concept and chocolate box as another and a third perception forms which is not present in any of the initial perceptions. To Fauconnier and Turner (2002), what mind does is essentially such expansions of cognitive maps that define our way of thinking and lead

our behavior in relation with in the natural world and humans. To them, what makes humans different from other creatures is this wonderful ability in creating mental or blended spaces.

Fauconnier and Turner's approach is closer to our understanding of the Thirdspace as a blended space made of two real and virtual spaces. However, to understand the relationship between the user and two real and virtual spaces, a phenomenological approach will be mentioned. The phenomenological approach makes distinguishes this article from Fauconnier and Turner. As Soja says, Thirdspace is the result of the user's lived experience and is at the same time, physical and mental. Therefore, the approaches of cognitive studies are not enough to understand this relationship, because they only focus on the cognitive aspect and the expansions of mental maps. Here experiences are cognitive, emotional, and behavioral in relation to real and virtual spaces.

Mental Space

To Fauconnier (1994; 1997) mental space is an intermediate link whose wonderful power in human's cognitive structure has not received enough scholarly attention. Their studies in different fields– from linguistics to creativity and art– demonstrate the importance of 'mental space' and what they later called blended space. They first attack linguistics and claim that a linguistic explanation of semantics is insufficient. Linguists say that it is the structure of the sentence that creates the *meaning*, and grammar tells us how to convey a meaning through the syntagmatic axis of word relationships. But to Fauconnier sentences do not convey meaning and "what kind of meaning will actually be produced depends on the 'mental space' configuration (generated by earlier discourse) that the sentence actually applies to" (1994, xxiii). Therefore, 'mental spaces' are at the background of language and its operation and they make communication possible. Obviously, mental spaces have sociocultural aspects that are different from a culture to another. Fauconnier (1994: 2) says:

Language, then, is not merely interpreted with respect to worlds, models, contexts, situations, and so forth. Rather, it is involved in constructions of its own. It builds up 'mental spaces', relations between them, and relations between elements within them. To the extent that two of us build up similar space configurations from the same linguistic and pragmatic data, we may "communicate"; communication is a possible corollary of the construction process.

In fact, according to Fauconnier, what is communicated through language are people's 'mental spaces'.

Turner (1993) believes that human beings constantly revise their concepts. Meaning, there is process of going *back and forth* in order to perfect concepts. He sees this revising process ongoing and present everywhere, even in language. Learning languages requires a constant process of revising the concepts in order to master the language. Anyone who naturally speaks a mother language has gone through repeated revisions to gain this level of proficiency. This is due to the ability of the mind to create mental spaces. But what is mind? To Turner, mind is the patterns of brain activity. Brain is a part of the body and not separate from it. Culture, society and language are also not separate from a human's brain. Culture, society and language are patterns inside the brain. Meanings are also patterns inside the brain. Meaning is what the human brain relates to its world. Things outside the brain do not have any intrinsic meaning.

Turner believes that concepts are not given to humans by the outside world. They are the result of activities as a species as they try to understand the world around them. They are completely imagined and exist only inside the brain (Turner, 1993). Turner considers everything as patterns of mind activity, and says that culture, society, mentality, language, art, dance, and all subjects of Humanities are patterns of the brain and mind activity. Therefore, he believes that Humanities is essentially the study of mind and brain (Turner, 1993). Fauconnier (1997: 8) demonstrates the relationship between mind, language, and the outside world as the following:

when language expressions reflect objective events and situations, as they often do (and often do not), they do not reflect them directly, but rather through elaborate human cognitive constructions and construals.

Brain or its activity patterns (mind) have a central place in the cognitive science perspective. In this perspective, rather than a philosophical approach to mind and considering it a mysterious force in humans, a bio-neurological approach is taken. In this approach, mind is the brain plus its activity patterns. Turner (1993) says that mind is nothing but brain and human identity is the patterns inside the brain. Also he mentions that mind is not only the conscious mind but includes all the subconscious cognitive activities of the brain which are much more than they seem to be in our conscious mind. He says that

body is mapped through this subconscious mechanism. Here Turner clearly draws the relationship between mind and body. Body is mapped through subconscious mechanisms of the mind. Turner and Fauconnier frequently use the term *mapping* in their works. Therefore, to Turner our perception of our body is the result of the mind's mapping through our subconscious cognitive mechanisms.

Turner (1993: 35) says the following about the body:

Our default concept of body is unexamined. We think our concept of the body applies to actual limbs and joints and fingernails. The body does not understand that it has matching hands that can clap together; the brain does. The hands do not clap; the brain does. The body does not suffer pain; the brain does. The body does not understand heat or hunger or orgasm; the brain does. Our actual muscles and organs do not respond to sexual images; our brain does.

To Turner (1993: 36), brain and mind are inseparable because the brain is filled with the essence of body. In a different statement Turner describes the relationship between mind and body as follows:

The mind, at all moments, is suffused in its thinking with its knowledge of the body. To imagine it as such, we must distance ourselves from the concept of the body as a sack of stuff viewed from the outside, and think in terms of the body as the brain's knowledge of the body, which resides of course in the brain, and not on our skin. When the mind is at its most concentrated, it may have attempted to eliminate present distractions, but it is fully engaged with the body as mapped in the mind. The body as mapped in the mind is the basis of many sorts of knowledge, including abstract knowledge, and routinely, suffuses thought, of all varieties.

There is a similarity between the works of Turner and Fauconnier regarding the relationship between mind and body in phenomenological philosophy; which facilitates the understanding of the position of the user's body in the real and virtual world. However, reducing the body to only a mental pattern can be disputed. Emotions and joy and suffering cannot easily be reduced to mental patterns and

cognitive mappings. On the other hand, as Slavoj (2009) says being overly focused on cognitive or symbolic aspects of things in cognitive theories can distract us from understanding real things that do not completely abide by the symbols.

Mappings

'Mental space' comprises of mappings (of different types such as metaphorical, allegorical, etc.) and these mappings make daily communication possible. As mentioned before, language is the tool for communication between mental spaces or mappings. Considering what Fauconnier and Turner say about metaphors, one could say that the user has created many metaphors in the relation between the real and virtual worlds. Sometimes, these metaphors are made using the similarities between the real and virtual worlds. For instance, in order to refer to their exhaustion or lack of concentration, the user might say: *my system is hung up*. The emergence of the concept of computer viruses is a well-known example that clearly borrowed from biology, health and medicine. In fact, the creation of the concept of computer viruses has taken place through a mapping process (Fauconnier, 1997).

Metaphors are the result of the process that Fauconnier and others have called 'projection mappings'. Through this process, a part of a mapping is projected over another part. Remember the example of life and a chocolate box. "The general and deep idea is that, in order to talk and think about some domains (*target* domains) individuals use the structure of other domains (*source* domains) and the corresponding vocabulary (Fauconnier, 1997: 9). Metaphors have a critical role in the expansion of conceptual networks. They also have an important role in poetic imaginations and the production of artworks.

In a statement, Fauconnier (1997: 34) clearly point out the relationship between language, mappings and 'mental space':

Language, as we know it, is a superficial manifestation of hidden, highly abstract, cognitive constructions. Essential to such constructions is the operation of structure projection between domains. And therefore, essential to the understanding of cognitive construction is the characterization of the domains over which projection takes place.

'Mental spaces' are domains resulted from the projection of two or several other domains (input domains) and they create a basis

for reasoning and interaction with the world while one speaks. Therefore, to Fauconnier (1997: 40) without considering cognitive infrastructures or 'mental spaces', meaning cannot be ascribed to a sentence per se:

A natural-language sentence is cognitively complex, because it incorporates information and building instructions at all these different levels. What kind of meaning is actually be produced depends on the 'mental space' configurations (generated by earlier discourse) to which the sentence actually applies. It is essential to remember that a natural-language sentence is a completely different kind of thing from a 'sentence' in a logical calculus. The natural -language sentence is a set of (underspecified) instructions for cognitive construction at many different levels.

Therefore, one could say that it is not even the grammar that defines the meaning of a sentence. But grammar is the method of leading the background mental spaces. As Fauconnier (1997: 70) puts it:

Some words and grammatical constructions bring with them an array of background knowledge, including frames, cognitive models, default assumptions, encyclopedic information.

Therefore, to Fauconnier (1997: 149):

Thought and language ... depend among other things on our capacity to manipulate webs of mappings between mental spaces.

The relationship between 'mental spaces' is what leads to the creation of 'blended space'. To Fauconnier (1997: 149):

Blending is in principle a simple operation, but in practice gives rise to myriad possibilities. It operates on two Input mental spaces to yield a third space, the blend. The blend inherits partial structure from the input spaces and has emergent structure of its own.

This can be clearly demonstrated in Figure 3.

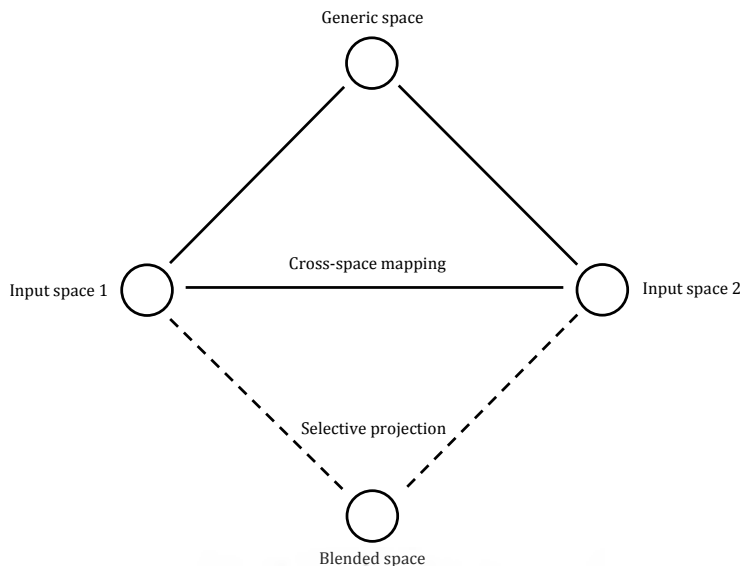


Figure 3. How blended space is formed

Fauconnier refers to blending also as “conceptual blending” as the two terms refer to the same thing. Thus, his theory is sometimes called *blending space theory* and sometimes *conceptual integration theory*. The emergence of new theories and advancement of science is, to a great extent, indebted to “conceptual blending”. “When blends are successful, they become our new construal of reality” (Fauconnier, 1997: 168). Blends are not necessarily created from two spaces. Three or more spaces may take part in making a ‘blended space’. Metaphors can be made in three or more input spaces. As mentioned before, to Fauconnier ‘blended spaces’ play a key role in metaphorical mappings (Fauconnier, 1997: 168). Blended spaces also exist in design. Computer user interfaces (UIs) are created by mixing two spaces: a real office (including tables, folders, shelves) and a computer space (including functions, folders, etc.) (Fauconnier, 1997). Fauconnier even considers communication to be a creative process between two minds or two people’s ‘mental spaces’: “Understanding is creating. To communicate is to trigger dynamic creative processes in other minds and in our own way.” (Fauconnier, 1997: 182). Fauconnier defines blending as follows: “blending is a cognitive operation leading to creativity at many levels and in many areas of mental life” (Fauconnier, 1997: 186). Therefore, creativity in all scientific, cultural, artistic and normal aspects of life is the result of blending of mental spaces. Stephen Mithen calls this *cognitive fluidity*.

“Conceptual Blending” has a central role in Fauconnier and Turner’s (2002: v) thoughts:

Conceptual blending operates largely behind the scenes. ... Almost invisibly to consciousness, conceptual blending choreographs vast networks of conceptual meaning, yielding cognitive products that, at the conscious level, appear simple. The way we think is not the way we think we think. Everyday thought seems straightforward, but even our simplest thinking is astonishingly complex.

It is true that ‘mental spaces’ blend through blending processes but they are not designed for that. This is our creativity that connects them and makes a new meaning out of them. But what are the principles behind blending. Fauconnier and Turner (2002: xii-xiii) believe, “there is an entire system of interacting principles behind the possibilities for ‘conceptual blending’, and we must grapple with that entire system to explain any one of its products. Much of that system concerns conceptual compression. Compression in blending networks operates on a surprisingly small set of relations rooted in human neurobiology and shared social experiences. These vital relations, which include Cause-Effect, Change, Time, Identity, Intentionality, Representation, and Part-Whole, not only apply across mental spaces but also define essential topology within ‘mental spaces’. Blending, it turns out, is an instrument of compression par excellence.” Compression can be clearly seen in metaphors. Compression is what Fauconnier and Turner (2002: 89) say makes our “human scale” and in fact makes the difference between human beings and other animals that even have the ability to learn:

Conceptual integration is at the heart of imagination. It connects input spaces, projects selectively to a ‘blended space’, and develops emergent structure through composition, completion, and elaboration in the blend.

It is noteworthy that these blends are not limited to thought structures. It applies to a large array of inventions, art, behaviors, designs, etc.

We live in the age of the triumph of form. In mathematics, physics, music, the arts and social sciences, human knowledge and its progress seem to have been reduced in

startling and powerful ways to a matter of essential formal structures and their transformations. The practical products of this triumph are now part of our daily life and culture (Fauconnier and Turner, 2002: 3).

Identity, Integration and Imagination

Mind operations that lead to the formation of blended mental spaces and make the foundations of our daily and even scientific and artistic lives are established on three basic operations: identity, integration and imagination. These operations are at the center of the simplest possible meaning. (Fauconnier & Turner, 2002: 6).

To Fauconnier and Turner the mind has three components: identity, integration, and imagination. These components all work inextricably well together. Integration is the basic mental operation in language, art, action, planning, reason, choice, judgment, decision, humor, mathematics, science, magic and rituals, and it affects the simplest mental events in everyday life (Fauconnier & Turner, 2002: 15). It seems like “living in the human world is ‘living in the blend’ or, rather, living in many coordinated blends” (Fauconnier & Turner, 2002: 390).

Turner in his book called *The Literary Mind* (1996) speaks about different literary genres such as allegory and explains their cognitive settings. Allegory, like metaphor, is the result of blending: “Input spaces can not only be providers of projections to the blend, but also receivers of projections back from the developed blend” (Turner, 1996: 60). To Turner “a blend can have more than two inputs, and that blending can happen recursively (Turner, 1996: 85). Turner believes that there is a common structure between two input spaces that make counterpart connections between them possible (Turner, 1996). These counterpart connections especially exist between the real space and virtual space and result in the creation of complicated blends from them. Turner believes “conceptual blending is a fundamental instrument of the everyday mind, used in our basic construal of all our realities, from the social to the scientific” (Turner, 1996: 93). What has made possible human’s scientific advancement is the creation of blended spaces (Turner, 1996: 95).

Blending is especially important in relation to meaning:

Our conscious experience seems to tell us that meanings are whole, localized, and unitary. But this is wrong. Blending is already involved in our most unitary and literal perception and conception of basic physical objects (Turner, 1996: 112).

Blending even shows itself in simple incidents in life. Looking at a street and remembering an event that happened yesterday depends upon an impossible blend: today's perceptual experience of the street and recall of yesterday's perceptual experience of the street. This is an impossible blending of realities that belong to two different temporal spaces and yet it is a routine part of understanding (Turner, 1996: 113). Having different perceptions from previous ones is only possible because of the blending that integrates them in combined mental structures (Turner, 1996). Life is not a single narrative, but rather a blend of dynamic and variable narratives distributed in all these spaces (Turner, 1996: 136).

In his 2014 book, *The Origin Of Ideas*, Mark Turner says that blends are the main origins of ideas. "Blends are all around us. We make them and remake them all the time" (Turner, 2014: 3). We can say Turner believes that blends are the main origins of complicated ideas. It is obvious that blends take place between Fauconnier's mental spaces, which are in fact the mental arrangements of our perceptions and form mental webs. A "mental web has mental spaces and connections between them". Thinking about something builds the mental space and their connections form a mental web (Turner, 2014: 5).

A blend itself is considered a 'mental space' which can be an input for the formation of new blends. Turner says: "The blend is not an abstraction, or an analogy, or anything else already named and recognized in common sense." A blend is a new 'mental space' that develops new meaning by forming a mental web that contains some elements from different 'mental spaces' (Turner, 2014: 6).

Blending, as the origin of ideas, enables an understanding of the big world through the creation of compressed and manageable ideas that, like mental tools, help manage the world.

The power of blending is three-fold: (1) blending lets us create new ideas in the blend that are congenial to our minds—it is the origin of ideas; (2) a blend gives us a handy tool for working on the vast mental web it serves; (3) the blend is small enough to be carried around mentally and to be expanded to connect to our current situations (Turner, 2014: 16).

What is considered as Thirdspace in this article is different from the way Bhabha and Soja have used. Thirdspace is the mental blended space that exists in the user's mind and makes their cognitive structure. Fauconnier and Turner's Thirdspace or blended space were

used as the third space because the virtual space is considered as the second space. The virtual space is not only seen as technology or the representation of the real world and therefore is considered to be relatively independent.

Statements regarding the virtual space

The virtual space is expressed through a number of statements below:

1. Virtual space is a techno-space. If the real space is the result of the real world and it is about geography in the real sense, virtual space is the result of technology. Therefore, instead of geography, electronic technologies define virtual space. These technologies emerged with the advent of radio and today they have developed into the internet, computer games and other electronic technologies (Bleeker, 2017).
2. Virtual space is not merely a representation of the real world. In some cases— such as cinema and television— one could see representations of the real world. It is also true about computer games, virtual reality (VR) and to some extent *augmented reality*. However, representing the real world is not the only thing that virtual space is about. Saying so would be reducing the virtual space to mere representations.
3. Virtual space is not merely the result of *the space of flows*. The space of flows (Castles, 1382) or as Virilio (2005) puts it *information bomb* in many cases leads to the creation of the virtual space in a network sense, but it is not the required condition of the virtual space. Virtual space exists even in a single computer or user interface. Moreover, virtual reality exists in games and offline virtual reality even when they are not connected to a network and space of flows.
4. Virtual space exists in our conception and lived experience. The real space of an entity is not only mental. Space in its social sense exists only in our conception and lived experience. Therefore, space is more than place and it depends on our conception and lived experience about it.
5. Virtual space is relatively independent of the real space. The operations of the virtual space depend to a great extent on electricity and without electricity it disappears. However, this disappearance is not real. Virtual space is more than an extension of the real space. Once Maurice Maeterlinck asked: when a candle is put out, where does the flame go? Here we can ask: when there is a blackout, what happens to the virtual space. Based on the

previous statement, one could say that as long as the virtual space exists in our conception and lived experience, it exists and we cannot talk about its destruction.

6. Similar to real space, virtual space has cognitive, emotional and behavioral effects. Sometimes these effects are in relation with the real space and sometimes they are the result of the manufactured virtual space. These effects are there even when electricity dies and the virtual space seems to be absent.
7. Virtual space has different levels– from emails to computer games. These levels have different characteristics in terms of spatiality.
8. The virtual space is the result of social interactions of the users in the techno-space. Space is a social entity and comes to existence as a result of social interactions and it is connected to our conception and lived experience. Interactions in the virtual space are multifold (person– person; person– avatar; person– computer/ machine) and complicated.
9. Users in virtual space have a proxy physical experience. Although, virtual space is a body-less space, essentially people have physical experiences in it. This physical experience is a kind of proxy experience that is created with the help of the mouse cursor, joysticks, and in more complicated forms, sensors attached to the user's hands or face (Hansen, 2004, 2006).

Thirdspace

To explain Thirdspace in this article, it is necessary to mention a few points. First it should be noted that what is meant by the term. It is different from how Bhabha, Soja and even Fauconnier and Turner have used it. Bhabha and Soja both pay attention to the subject's perspective and his lived experience. That is the strength of their approach; yet, that is not how the term is used in this article. Soja's theory could be placed within the first (real) space defined in the article. Bhabha's first and second spaces can also be within this article's first space. However, his third or hybrid space is to some extent similar to Fauconnier and Turner's 'mental space' or blended space. Bhabha's theory in the field of education and learning is close to Fauconnier's mental and blended space and it can be placed it in the Thirdspace model. In this model, however, the second space is the virtual space that, as mentioned above, while in relation with the real space, it is relatively independent. Figure 4 demonstrates the trialectic relationship between these three spaces.

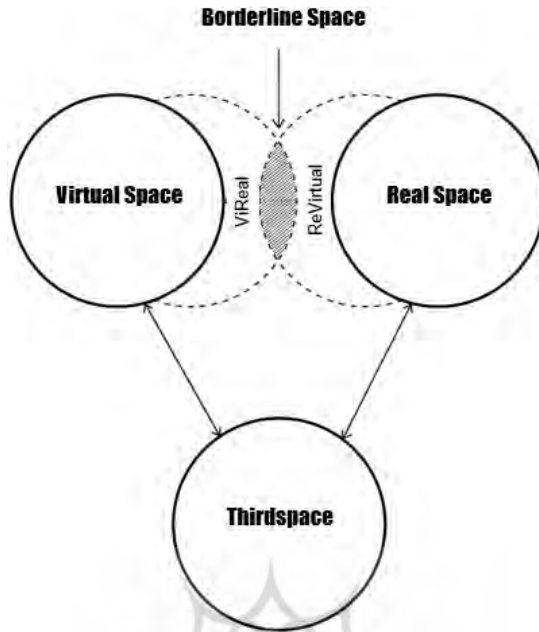


Figure 4. The trialectic relation between virtual space, real space and Thirdspace

During the past three decades some scholars (see Ameli, 1384; Ameli & Hassani, 1391) have used concepts such as dual-globalization and dual-spacization and tried to discuss the existence of two real and virtual spaces as conjoined twins. This concept not only recognizes the virtual space as a new space of social life but also speaks of the interplay between real and virtual spaces which can be very interesting for many scholars of the virtual and cyber space. This approach, however, suffers from a serious weakness which is the position of the user between the two spaces. In fact, in this model an individual is either in the real space or in the virtual space. However, to better understand the interaction between the user and the two spaces a model with three elements is required. The third element of this model is the Thirdspace. Thirdspace is a concept that paves the way for a better understanding of the interactions between the real space of daily life and the virtual life that the users experience. Thirdspace overcomes the duality of the real and virtual spaces as conjoined twins and speaks of a new interactive space that is formed in the user's mind. Fauconnier and Turner's concepts of mental and blended space are very useful in configuring the Thirdspace. For the users who are experiencing real and virtual spaces and keep switching between the two, Thirdspace might not be very tangible. But this space has been formed and in fact

based on Fauconnier and Turner Thirdspace cannot be understood without mediation.

To further clarify the argument, the interactions and experiences between the users in the virtual and real spaces can be examined under four categories, which are related to the increasing development of cyber-technologies.

1. Most users often live in the real space and sometimes peep through the virtual space as well.
2. Users seem to be living mostly in the real space but in fact most of their time is spent on interactions *via* the virtual space.
3. Users keep switching between real space and virtual space.
4. Users are not living in two spaces. They live in a blended synthetic Thirdspace that has the characteristics of the two real and virtual spaces.

Therefore, Thirdspace is a mental / blended space that forms in the users' mind and facilitates the mediation between the two other spaces. Because of the users' quick switches between the two spaces, it cannot be said that only one world is real. Both worlds have real effects on the users and thus for them both worlds are as real at the same time. They follow the rules of two different worlds. These two worlds existed before the users and will exist after them and each of the spaces, alone or in interaction with the other, form many mental spaces in the users' minds.

The last point to be explained is about the dotted line in figure 4. In the model, the dotted lines– borderline spaces– are spaces that are at the same time real and virtual (ViReal or ReVirtual). Flight simulators are instances of the borderline ViReal spaces. Another example is 3D portrayal of statues using hologram technology. Videogames and especially Pokémon Go are examples of the borderline ReVirtual spaces. Nowadays, smart phones are the best connection points of the two real and virtual spaces and are among the best dual borderline spaces.

Fauconnier and Turner's approach to the formation of a mental or blended space is a cognitive approach. While it explains the formation of schemas and mental maps very well, it fails to explain the user's real confrontation with real and virtual spaces. This confrontation leads to the creation of a new mental or blended space.

To better understand this notion, a phenomenological approach is required. The main question is if embodiment is an essential condition of reality? The body does not– in the normal physical sense– exist in virtual space hence we experience it in disembodiment. But it is not complete disembodiment but rather a kind of a *proxy embodiment*. Proxy embodiment refers to the fact that although users do not directly exist

in the virtual space, they can have most of their physical experiences in virtual space. Deep studies conducted by Hansen (2004; 2006) who has taken a phenomenological approach to the experience of seeing and its relation with the body in new virtual art experiences, clearly shows the existence of embodiment in this space. Hansen shows in many cases that bodies experience both cognitive and emotional existence in both real and virtual spaces. According to Fauconnier and Turner, not only do users' bodies exist in their minds but they even experience pain, fatigue, anxiety and other conditions in both spaces.

Therefore, reducing the body to a pattern in mind, limits our understanding of the body in the real and virtual spaces. This should be considered regarding emotions and feelings as well. Using Fauconnier and Turner's cognitive approach, we might be able to reduce feelings and emotions to a pattern of the mind but that is not all there is. We need a pattern of body in the three-space model that is better understood with a phenomenological approach. In this approach, mental spaces and blended spaces result from their interactions and are connected to the physical body and not its mental pattern, be it the real space, the virtual space or even the relationship between these two spaces.

The increasing interpenetration of real and virtual spaces intensifies the stresses day after day and more and more skills are needed to manage interactions *in* and *between* these spaces. An individual unable to manage their activities using a laptop or a smartphone, while at home, faces ever-increasing anxiety. This is not limited to the management of business or professional activities. It is increasingly related to the management of our emotions and relationships. Real and virtual spaces both result in emotional relationships, which are hard to manage and good skills are required to manage them. Thirdspace is the concept that convergence theories, such as that of Bradley (2011) did not pay attention to and has no place in the models they proposed. Fauconnier and Turner's cognitive approach also failed to pay proper attention to Thirdspace.

Conclusions

This article's main focus was to consider the position of the user in their interactions with real and virtual spaces. It sees the user as a subject that is not only in interaction with real spaces but is also in interaction with virtual and borderline spaces and his cognitive structure is expanding. The expansion of mental and blended spaces, resulted from the confrontation with a new space and borderline spaces (ReVirtual and ViReal spaces) adds a new dimension to users' mental structures.

Thus it can be said that mental and blended spaces that are called the Thirdspace, expands in confrontation with three real, virtual and borderline spaces. Thirdspace is a 'mental space' which is made of cognitive patterns and facilitates users' behavior in confrontation with real and virtual spaces. Thirdspace consists of mental blended spaces and this improves the users' skills in managing their emotions and behaviors in confrontation with real and virtual spaces.

Therefore, in response to the question: "where is the user?", one could say that even though the user's body is in the real world, as a subject, the user is neither in the real space nor in the virtual space. The user is in a third space made of mental patterns. Speaking of the duality of mental and real spaces is fruitless. In this mixed space, the fate of human culture (specifically art and cultural products) is getting more and more complicated. Living in the Thirdspace requires new life skills which are not limited to using computers and other digital technologies. This leads to a deep and sophisticated understanding of confrontation with real and virtual spaces. Therefore, Thirdspace necessitates redefining society and social interactions. The increasing expansion of the borderline spaces, better called *interpenetration*, necessitates further complications of the mental and conceptual spaces.

It seems that the concept of Thirdspace that was coined by writers such as Bhabha and Soja are also suitable in bridging theoretical dualities on real and virtual spaces. The expansion of VR technologies, online games, and newer games such as Pokémon Go clearly shows that new definitions are needed for the virtual space and its relationship with the real space. Such new definitions would obviously challenge all scientific disciplines which are somehow concerned with these concepts— disciplines such as psychology, management, education, sociology, communication, etc. The concept of proxy physical experience challenges our notion of body and its existence merely in the real space. This frees us from the dualism inherited from Descartes and brings us closer to a phenomenological approach to embodiment and its direct or proxy existence.

Moreover, the expansion of borderline spaces indicates that the network society is more than a pretty title. Networking has happened not only in the society but also within the *self*. One of the implications of networking is that a new definition of reality is needed from the philosophical perspective. It is a question for modern philosophers. This article paves the way for thinking about this issues and opening new fields for research about the confrontation of the user with real and virtual spaces, or in better words virtual-real spaces.

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