Mediology of Literature: A Sociocultural Approach for the Study of Narrative Ecosystems. The Case of The Body Snatchers

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Abstract: The mediology of literature is a disciplinary approach to the study of the complex literary forms of digital society (Ragone 2014). This approach is based on the theories about the literary medium developed by Marshall McLuhan (1954, 1962, 1964, 2011). This paper aims to investigate how the mediological approach can help to analyze contemporary narrative ecosystems (Innocenti, Pescatore 2017, 2014, 2012). These ecosystems are structured by wide-ranging media processes: convergence (Jenkins 2006), serialization, and transmediality (Scolari 2013, 2009, Freeman, Gambarato 2018). Through the analysis of the narrative ecosystem centered on the novel *The Body Snatchers* (1954), our research aims to highlight how literature produces universal cultural myths, how these myths evolve through interaction with media, technological and social environments, how media metaphors can anticipate and foreshadow the cultural processes of the digital society.

Keywords: mediology of literature, narrative ecosystems, transmedia storytelling, science fiction, serialization

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The mediological approach: literature, digital society and metaphors of media

Mediology of literature is an approach based on the theory of literary medium developed by Marshall McLuhan. For the Canadian mediologist, literary works are based on a techno-media apparatus and on the ability to incorporate media metaphors. Thanks to the technological apparatus and metaphorical ability, literature generates environments and objects of communication. Human beings continually interact with such environments, as with any other cultural artefact: "all that belongs to humanity – memory, imaginary and identity, the foundational processes of cultures – develops in mediated cultural environments, inseparable from technology" (Ragone, 2014, p. 3-4, our translation). As Gabriele Frasca (2006) points out, literature, as a set of media based on a technological apparatus, has evolved over the centuries through production, distribution and consumption practices. Such practices contemplate phenomena of hybridization between four actors of culture: information, support, recording techniques and the body: "each of these elements modifies the other and this determines (…) the transformations of culture, which however invests these 'actors' each in its own way. The support (…) tends to become increasingly immaterial, and therefore to return to the body as a film (up to the very triumph of design). The recording techniques remap the human sensory (it is the trait d'union between body and support), but they oscillate between sight, hearing and touch, whose hierarchical relationships are reprogrammed every time a variation of support happens. The information proceeds over time (…), passing from the 'de-narrativization' (…) to the 're-narrativization' in the phases of passage between a support and the other. And the body? It changes (…) and, above all, it is perceived as modified" (Frasca, 2006, p. 19, our translation).

A first objective of the mediology of literature concerns the mapping of the hybridization between words and sensory technologies. In this perspective, it studies the dynamics of interaction between contents, media, recording techniques and readers' bodies. A second objective, linked as the first to the Mcluhanian theories, concerns the study of the ways in which literary works incorporate and rework symbols and narratives, coming from the imaginary of other media. Literature metaphorizes these elements within their own narratives. Mediology of literature assumes a greater relevance in the social media era, since the set of cultural actors, processes and technologies is immersed in a scenario of permanent mutation. McLuhan (2011) wrote that all media are metaphors, because they translate experience into new forms. In the current mediascape, shaped by a constant innovation, then, "literary forms" can be read as "metaphors of mutant subjectivities" (Ragone, 2007, p. 1, our translation). Donatella Capaldi (2012, p. XII, our translation) further

clarifies that, in contemporary narratives, a mediologist of literature should identify "the syntax or the figures imported from other media, the processes of 'remediation' (intertextual and intermedial) of images, ideas or situations, re-elaborated in the works of a writer (…). In this operation, the scholar must not conceal the powerfully hybridizing and therefore conflictual nature of the mediamorphosis". The study of the interaction between human sensory, literary media and metaphors of reality within the literary space requires a theoretical approach that holds together the Media Studies and the sociology of the imaginary.

Giovanni Ragone (2014) attempted to systematize the epistemological foundations of the mediology of literature, analyzing the main scientific references of this approach. He highlights a privileged object of research: experimental art, whose study allows to explore the metaphors of the media incorporated in literary fiction. Among the examples cited by the Italian mediologist, there is James Joyce's works. In McLuhan's reading, Joyce captures the implosion of the written language in the culture of the 1930s and 1940s: his writings can be interpreted "as the vanguard and the anticipation of a new media order" (Ragone, 2014, p. 7-8, our translation. See also Frasca, 2006, p. 196-225).

In The Gutenberg Galaxy (1962), McLuhan argues that, in order to understand cultural evolution, we must study the media that define it. In this perspective, therefore, in order to understand the media, we must recover the metaphors and creative innovations of the artists, able through their poetics to intuit the mediamorphosis. McLuhan uses a research method based on constant references to the intuitions of artists and writers also in Understanding Media (1964). One of the ways of enhancing the Mcluhanian legacy concerns the study of the "great anomalies" (Amendola, 2012; 2006): we refer to those artists who, in the midst of media conflicts, rethink the expressive machine of literature.

These authors hybridize the known forms and produce absolutely new ones, thus showing the next configurations of the mediascape. This is the case, for example, of Samuel Beckett's "over-mediality" (Amendola, 2006, p. 120-140), of the "programmatic revolution of feeling, seeing and telling", conceived by the Dadaists (Amendola, 2012, p. 25), of the ante-litteram viral transmediality and crossmediality of William Burroughs's masterpieces (Amendola & Tirino, 2016), of Gustave Flaubert, whose novels are "a link between the definitive 'explosion' of the typographic medium and the 'metric galaxy' achieved by the diffusion of electrical media" (Frasca, 2006, p. 167), of the dystopian novels by Philip Dick, in which echoes of the war trauma and the pervasiveness of mass media resonate (Frasca, 2006; 1996).In addition to McLuhanian media studies, the other great theoretical root of the mediology of literature concerns the studies on the imaginary. Ragone (2014)

lists a series of scholars (Durkheim, Freud, Kracauer, Mauss, Simmel, Benjamin, Morin, McLuhan, Barthes, Baudrillard, Abruzzese, Lotman), whose work investigate collective imaginaries, that is, those "narrations and icons that organize time and space, relocating the individual and his 'inhabiting' the world within them: from ancient myths and sacred scriptures to novels and modern journalistic and fictional stories, they shape and synthesize the relations between space (the 'place') and the subject, its 'inhabiting' (the 'myth')" (Ragone, 2014, p. 9, our translation). These scholars have perceived the cultural transformation taking place between the mid-nineteenth and twenties of the twentieth century, when the electric media burst into the metropolitan life of the most advanced industrial societies. The social and cultural processes triggered by the mass media generate a full body of myths, narratives, fictional and not, welding the link between urban aesthetic forms and literary forms, mostly experimental.

Taken together, the studies on the imaginary "show how it is possible to read the structures and metaphors of literature as an allegory of the subject, which inhabit that technologically given space and time" (Ragone, 2014, p. 13, our translation). However, media metaphors expressed in literary texts must be contextualised within a media ecosystem, in which other media and other artistic languages operate.

In the seventies Alberto Abruzzese (1979; 1973) published some fundamental studies on the incessant mutation of collective imaginaries: he analyzes the ways in which the knowledge of artistic avant-gardes reverberates in the system of mass communication. Art, like experimental literature, is able to anticipate the socio-cultural innovations that will be subsequently produced by the model of mass communication. This model is established in a progressive and unstoppable way, thanks to the triumph of the show business and the goods, which represent the aesthetic foundations of industrial modernization. Abruzzese identifies the inextricable intertwining between media and imaginary, which project literary works and artistic media in communicative environments, dominated by audiovisual, filmic and television cultures. These environments will subsequently be undermined by the penetration power of digital media. Literature and the arts, "as a psycho-sensorial experience and as an experience of imaginary, therefore of relations between places and myths (...) [are immersed] in the flow of the sensory, technological, medial and therefore social environment. In this environment they hybridize with proteiform identities and cultural memory" (Ragone, 2014, p. 20, our translation).The validity of the mediological approach to literature is confirmed when, in the digital-telematic age, some of the Mcluhanian intuitions are reflected in the social, economic and cultural processes that have accompanied the rapid affirmation of the network society (Castells, 1998, 1997, 1996): globalization, the conflictual reconfigura-

tion of relationships between analogical and digital media, the renewed centrality of the audiences, hyper-connected and co-producers of culture. The media are factors able to mediate the relationship between individuals and environments, both physical and imaginary; moreover, they shape the aesthetic and relational qualities of the experience of the environments that the subjects make. Therefore, only from a mediological perspective the artistic media can be appreciated for their metaphorical qualities. In this perspective, the artistic media can be conceived as "means for the identification and understanding of the environment and subjectivity, which in them is shown by metaphor. Subjectivity, through metaphors, pushes the evolutionary action of mediamorphosis, changes itself, the environment and those who live there" (Ragone, 2014, p. 21).

Contemporary media environments, resulting from digital transformation and economic-financial globalization, go beyond media metaphors and collective imaginaries based on electrical media. At the same time, contemporary cultural production is based on a continuous remix or a constant remediation (Bolter & Grusin, 1999) of the literary and audiovisual materials of the nineteenth and twentieth centuries. The current phase of digitization of every media and cultural processes has been preceded by a sharp conflict, which lasted for the entire transition from the techno-socio-cultural frameworks of the analogical paradigm to those of the digital paradigm. Each cycle of transformation of media cultures requires a period in which individuals, individually or in groups, implement adaptation strategies. The reconfiguration of the senses, the media and culture triggered by digital media can be compared to the advent of printing press (Golino, 2016, p. 192, our translation): like Gutenberg's invention, so digitization reprograms daily life, social processes, macro and micro events. As Lombardinilo (2016, p. 70-71, our translation) points out, "technology affects the perceptual abilities of individuals, subjected to constant adaptation processes, which literature has the task of describing and analyzing.

The literary medium theory built by McLuhan during his scientific activity could also be condensed in these terms".In today's scenario, dominated by the network paradigm and by the imposing phenomena of anthropological, cultural, social, economic mutation triggered by the Internet and social media, literature continues to play a vital role: it has "learned to act also in the new environment, continuously hybridizing media 'architectures' or 'machines' or 'flows', signaling directions and conflicts of the mediamorphosis, and offering itself as a fundamental field of experience of those drifts and those lacerations" (Ragone, 2014, p. 28, our translation).

Digital technologies and social media act today, tearing the limits and barriers of electric mediascape. They grant a dream that, according to Walter Benjamin (2008), was already alive in the thirties – that is the dream of

"breaking down distances and reproducing meanings, so as to make them usable everywhere and at any time: the ancestral need for communication of individuals it is fully satisfied today by the advent of synchronized and connected interactions, dominated by old and new media, dynamic and interactive" (Lombardinilo, 2016, p. 71).

Thus, literary works incorporate metaphors of cultures and digital media. Having established this, Ragone identifies an ambitious cognitive objective for the mediology of literature: it should "identify the great metaphorical fields of artistic creation in the course of history" and "reconstruct complex metaphorical movements" (Ragone, 2014, p. 31). In other words, the mediology of literature should explore the historical paths for which some great figures of the imaginary (the zombie, the mutant, the alien, the cyborg, the vampire, the robot, the superhero, etc.) have appeared in a specific historical, social, technological context.

Narrative ecosystems, seriality and transmedia storytelling

Mediology of literature is a scientific approach particularly useful for analyzing the narrative ecosystems that dominate much of contemporary cultural mediated production. According to the ecological approach, serial narrative forms can be conceived as the outcome of an ecosystem design, in which a general model is developed as an evolutionary system with a strong capacity for coordination of its parts (Pescatore, 2018; Innocenti & Pescatore, 2017; 2014; 2012; 2008). In this perspective, the study of a narrative ecosystem consider "a wide range of agents and factors, different from one another in their basic nature: producers, actors, audience, narrative elements, economic background" (Ruffino & Brambilla, 2015, p. 56). Narrative ecosystems, as open systems, have some basic characteristics (Innocenti & Pescatore, 2017): they are inhabited by narrative devices, characters and audiences, which evolve over time and space; they maintain a certain level of internal coherence; they develop according to often unpredictable trajectories; users travel through them in non-linear ways and through diversified media experiences; they are distributed and disseminated systems, so as to encourage the participation of users. This approach has been used above all for the analysis of contemporary TV series, based on the complex storytelling (Mittell, 2015). The context of television seriality, in fact, is a complex scenario, where many actors (TV networks, showrunners, authors, artists, audiences, fandom) interact with various media environments. These series are conceivable "as a composite environment that can integrate energy flows originated by users, technologies and media items" (Innocenti, Pescatore & Rosati, 2016, p. 137).

However, the ecological approach is not the only one possible to analyze narrative ecosystems. In our paper, we take into account narrative ecosystems created by literary works. We suggest to conceive such ecosystems as complex communication objects, constituted by single medial elements, more or less coordinated, that evolve over time thanks to the interaction between aesthetics, technologies, public and socio-cultural processes. In this perspective, we propose to consider the individual narrative universes as narrative ecosystems, inserted in broader media and cultural environments. Media Studies contribute to analyzing three main processes that shape contemporary narrative ecosystems: convergence, serialization and transmediality.

The convergence between platforms, devices and technologies has produced integrated communication environments (Dwyer, 2010; Jenkins & Deuze, 2008; Jenkins, 2006), where the boundaries between old and new media and technologies break down. Thus we are faced with a fully post-media era (Eugeni, 2015). Media convergence generates networked systems, which redefine daily life (Meikle & Young, 2012), interpersonal communication and economic structures on a global level (Jensen, 2012). In addition, there is also a cultural convergence: mainstream cultures and grassroots cultures (audiences, fandom) converge thanks to the many opportunities provided by Web 2.0, open source software, apps, video sharing platforms, social media and so on.

Serialization has been a feature of cultural products since the nineteenth century (Delafield, 2015). In its simplest form, we can define serialization as the main characteristic of those works organized in single coordinated and progressive elements. Serialization is a powerful means of loyalty retention of the audience, allowing authors to create real, broad, structured, complex narrative universes. Allen and van der Berg (2014, p. 1) suggest that "serial forms often serve as catalysts for the transformation of a specific communications technology into a popular media form". Since the mid-nineteenth century, it is in popular literary products (pocket novels, pulp magazines, comics) that we find the three basic principles of serial narration, namely: 1) narrative implication: the quality of those texts that reveal a possible evolution of characters, events and stories in successive episodes of the series, through the reference to an untold background; 2) narrative extension: that property of the narratives that encourages its expansion beyond the boundaries of a single text, so that original characters, environments and events are preserved and/or developed through the encounter with new characters, environments and events; 3) retroactive links, which allow to build a serialized narrative universe cementing the connections between the various episodes of the story (Scolari, Bertetti & Freeman, 2014). These basic elements of serial narration will be applied in all forms of serialization experienced

in the following media: radio, cinema and tv serials, telefilms, filmic sagas, tv series, and so on. In the digital age, serial narratives make it possible to regulate the dynamics between production, distribution and consumption: they influence the aesthetics of cultural products and determine the directions of the cultural industry. In this sense, the relevance of the television series is only the most evident example of how seriality is the main way of organizing cultural contents (Wells-Lassagne, 2017; Kelleter, 2015; Creeber, 2005). A further example is provided by the cinema: among the ten films that have more cashed at the box office in 2018, only one (*Bohemian Rapsody*) is not connected to a series[1].

Henry Jenkins (2003) introduced the term 'transmedia storytelling' to refer to those cultural products that expand their narratives across multiple media and platforms. Transmedia expansion can be derived from media industry programming, which aims to broaden a narrative universe by maximizing profit opportunities from different media (eg, the Star Wars saga, distributed between canonical films, spin-offs, animated series, books, videogames, etc.). A fundamental element of transmedia storytelling is the role of fans (Freeman & Gambarato, 2018). As Jenkins explains (2006; 2006b), a transmedial narrative universe urges the active participation of the audience. Fans fulfill the need to expand the beloved narrative universes through the production of user-generated content (memes, GIFs, fan fiction, etc.). In other words, transmedial narratives are fed by a continuous flow of contents generated by the audiences. Through these media dynamics, contemporary culture is increasingly conceivable as participatory culture, as Carlos A. Scolari (2009; 2009b; 2013; 2013b; 2014) has repeatedly pointed out. More specifically, participatory culture involves a series of negotiations between the top/down strategies of the media conglomerates and grassroots and bottom/up practices of the fans (Jenkins, Ford & Green, 2013; Rose, 2011; Couldry, 2010). Most of the studies on transmedia storytelling are dedicated to contemporary franchises, mostly related to film sagas (Star Wars, Matrix, Hannibal) (Tirino, 2017) and television series (Lost, The Walking Dead, Games of Thrones, Gomorra, etc.) (Tirino, 2015; Napoli & Tirino, 2015; 2016). However, as Scolari, Bertetti and Freeman (2014) observe, the transmedial expansion of narratives is not a recent phenomenon and even in the past it has been pushed by the pressures of fan groups. A fundamental epoch for the subsequent development of transmedia seriality is the 1930s. Just the literature of this decade, both in the form of pulp magazine and in that of comics, fuels the development of the first auroral forms of transmedia storytelling. Pulp magazines and comics declined the tensions, the traumas, the anxieties and

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[1] Cfr. https://www.boxofficemojo.com/yearly/chart/?view2=worldwide&yr=2018&p=.htm [accessed January 15th 2019].

the desires of large sections of the American audiences, effectively combining graphic knowledge with narrative one (Reimer et al., 2014). Soon, single texts or individual series of novels are transformed into narrative ecosystems, including literary works, films and radio programs (eg Batman, Tarzan, Flash Gordon franchises) (Tirino, 2019; Freeman, 2015).

Mediology plays a fundamental role in the study both of serial forms and transmedia storytelling. On the one hand, this approach can clarify the complex and dynamic relationship existing between the proto-serial forms of communication (radio, cinema, literature, theater) and the neo-serial forms, remodeled by the processes of techno-cultural convergence generated by digital media (Boccia Artieri & Gemini, 2016). On the other hand, the archeology of transmediality (Freeman, 2018; 2016; 2014; Scolari, Bertetti & Freeman, 2014), as a mediological approach, aims to reconstruct the dynamic interaction between media and public industries in the processes of expanding narratives across multiple media and platforms. In this perspective, mediology of literature offers a series of useful conceptual tools for the analysis of narrative ecosystems. In fact, the study of historical forms of serialization and transmediality allows us to understand how literature experiments narrative models, which subsequently influence other media and mediascape in general. Secondly, mediology of literature allows us to study the way in which novels and other literary products incorporate metaphors of reality and the media. Many of the contemporary narrative ecosystems have literary roots (James Bond, Harry Potter, Lord of the Rings, The Twilight Zone, Games of Thrones, Gomorra, Romanzo Criminale, etc.), which confirms that, even in the digital age, literature acts as a metamorphic medial machine, capable of formulating powerful cultural myths, which are declined in various media. Through a multidisciplinary approach, which holds together Media Studies and the sociology of the imaginary, mediology of literature aims to investigate these complex narrative ecosystems. We now develop the analysis of a specific narrative ecosystem: the one centered around the novel *The Body Snatchers* (1954). We have chosen this specific case also because it offers the opportunity to highlight the multiplicity of types of narrative ecosystems. Many of the recent studies focus on narrative ecosystems based on established franchises. These transmedia ecosystems are produced by media conglomerates and stimulate huge numbers of fans to participate in their construction through grassroots practices (Star Wars, Star Trek, Marvel Cinematic Universe, etc.). Other ecosystems – like that of *The Body Snatchers* – develop over time, through a set of narrative formulas (prequel, sequel, reboot, remake), according to unpredictable evolutionary procedures that – as the ecosystem approach emphasizes – are determined by economic, cultural, aesthetic, social processes, in which the role of media conglomerates is reduced (Hannibal, Die Hard, Planet of the Apes, etc.).

A mediological analysis of The Body Snatchers' narrative ecosystem

The *Body Snatchers* is among the best known novels of the science fiction genre, published in three episodes between November and December 1954 in the magazine "Collier's" and the following year in a paperback edition for Dell Books. The goal of this study is to analyze how Jack Finney's work, reverberating in a series of remakes, contains icons, symbols and themes of the digital society. By adopting the typical approach of mediology of literature, we aim to demonstrate how Finney used the literary medium to elaborate universal cultural myths. These myths affect the contemporary digital society thanks to a deep interaction with filmic cultures, developed from the fifties of the twentieth century to the present day. Jack Finney's novel tells an invisible alien invasion: seeds of extraterrestrial origin settle on planet Earth, where they are able to replace each human being. When the process ends, human bodies dissolve, while the alien duplicates take their place. Extraterrestrial copies are physically identical to the bodies that have replicated. The alien pods are distinguished from humans only for the absolute inability to experience emotions and empathy.

Invasion, paranoia and de-humanization

As Johnson (1979) observes, The Invasion of the Body Snatchers uses a narrative formula deeply rooted in the American imaginary: the novel leverages, in fact, on the figure of the invasion (Tirino, 2015). Starting from the 1950s, popular literature and cinema in the United States are producing more and more stories based on various types of monsters (zombies, vampires, giant insects). Postwar American society requires stories that tell the terror of the violation of living space, in a form that combines fear and entertainment. Finney's novel refers primarily to the climate of paranoia, connected to the Cold War and the fear of a communist invasion. However, Finney works on this subject; he transforms the reductive opposition we/they and conceives the invader as an invisible conspirator, able to appropriate the bodies, minds and personalities of humans. The novel thus constructs a symbolic structure, which we can interpret as a horror/science fiction variation of the Doppelgänger myth, a spectral (or even real) copy of a living being (Kottmeyer & Story, 2001). In fact, the plot focuses on the universal terror of the dehumanization. Thus conceived, the central metaphor – the alien invasion – serves as a collector of different cultural anxieties of the period: McCarthyism, the alienating effects of capitalism, the anguish caused by postwar nuclear danger, the brainwashing of American soldiers captured in the Korean war, and also male fears, because of the crisis of white patriarchy (Mann, 2004; Mc Arthur, 1995). In Finney's novel there are further representations of the fears of the American citizen after World War II. The analogy between puppet

and divorced evokes nostalgia for a society founded on marriage and the family; the comparison between the anaffectiveness of alien agents and the compassionate falseness of color shoeshine refers to the disorientation of the white ruling classes in the face of the struggles of African-American rights movements. Moreover, the social production system implanted by the pods, very similar to the Soviet collectivism (Meeker & Szabari, 2012), causes the collapse of the rural economy of the Californian smalltown (Santa Mira): Finney adopts a clear nostalgic register about the disappearance of small American towns with their virtues and their community organization.Finney's novel and its first adaptation, Invasion of the Body Snatchers (1956), written by Daniel Mainwaring and directed by Don Siegel, respect the fundamental rule of the stories that recount the monstrous invasion: the defeat of the alien and the restoration of the traditional values. However, the finals express a different position on the relationship between the individual and society (Johnson, 1979). In the first draft of the novel, for the magazine "Collier's", the fire of the pods serves to draw the attention of the FBI, whose intervention is decisive for the flight of the aliens from the Earth.In this case, Finney agrees with the propaganda of the authorities, who believe that the only salvation of citizens is given by the collaboration with the police. In the 1955 revision for the paperback edition, however, it is the heroic act of the singles, Miles and Becky, that pushes the plant species to abandon the planet. The writer pays homage to the American individualist spirit. Siegel and screenwriter Daniel Mainwaring maintain the emotional structure of the story, but reinforce the paranoid sense of loss. In the film, unlike the novel, Miles fights aliens alone, since both his friend Jack Belinec and his beloved Becky undergo the alien transformation. In the first final, the doctor throws himself madly between the cars running a freeway, because he fears that his story is too far-fetched to be believed, shouting: "You fools, you're in danger. Can not you see – they are after you. They're here already. You're the next!". This version did not pass the first preview and Allied Artist asked Siegel to modify it. Adding a prologue and an epilogue, Siegel signs an ambiguous ending: on the one hand, based on the epilogue, the story seems to start at a happy end, since the story of Bennell, housed in a psychiatric hospital as a patient, finds a feedback due to the seizure of a load of pods by the FBI. On the other hand, the prologue shows Miles prey to spasms, eyes out of their sockets: in this way, Siegel pushes the viewer to wonder if the whole story is true or is the result of the distorted imagination of a mind affected by severe paranoid disorders. Furthermore, Finney explains the cosmic invasion using a pseudo-scientific theory. Siegel, on the other hand, stages a quasi-religious dispute over the value of life. In this way the film focuses on the emotional tensions of the historical period, exemplified by the evil offer of the invaders: they promise to erase pain and suffering, but, in return, humans must

renounce all emotion. Ultimately, we can agree with Johnson (1979, p. 14), who says that the book and 1956 film can be considered a "cultural myth", in the sense of John Cawelti. In fact, they "take a popular story formula and present it in a way that it becomes an expression of a basic pattern of meaning" (Cawelti, 1976, p. 300).

The globalization

As Loock (2010) observes, Finney's novel connected to cultural anxieties typical of post-World War II; the subsequent remakes have intercepted contemporary fears. In this list we can include, in addition to *Invasion of the Body Snatchers* (1956), *Invasion of the Body Snatchers* (1978) by Philip Kaufman, *Body Snatchers* (1993) by Abel Ferrara, *The Invasion* (Invasion, 2007) by Oliver Hirschbiegel and television series *The Invasion* (2005-2006), produced by ABC and created by Shaun Cassidy. The invasion from the outside seems to be a flexible metaphor, so much so as to be useful for various purposes (Hoberman, 1994) and to lend itself to multiple interpretations (Grant, 2010). For this reason, the remake output at regular intervals can be interpreted on the basis of a drive to revisit the story. Each remake creates an updated version, which connects to the cultural anxieties of one's own era (Badmington, 2001).

Any narrative ecosystem based on the remake is based on a game of repetition and innovation (Eco, 1985; Verevis, 2006). This dynamic is evident in the 1978 film, which manipulates the narrative tradition of the novel and Siegel's previous movie. In fact, the screenplay by W.D. Richter contains numerous elements that anticipate the themes of the digital society. The essential narrative line of the literary source is maintained – the same can be said for the subsequent adaptations, both for the television series by Shaun Cassidy: an invasion of an alien plant species progressively takes possession of the bodies of the inhabitants of an American city, San Francisco. Elizabeth Driscoll (Brooke Adams), employee of a public health agency, finds one of these plants and takes her home, but soon she senses that her partner Geoffrey is no longer himself. The girl talks about it to fellow inspector Matthew Bennell (Donald Sutherland), who ascertains the pervasiveness of similar cases thanks to the testimony of psychiatrist David Kibner (Leonard Nimoy). Bennell tries in vain to warn the authorities, supported only by his friend, writer Jack Bellicec (Jeff Goldblum) and his girlfriend Nancy (Veronica Cartwright). The reaction is vain: the pods have now occupied the city and, in the last scene of the film, it is Matthew, now mutated, to denounce Nancy with the terrible verse with which the aliens communicate the presence of humans not yet transformed. The change of spatial and temporal setting (we are in the seventies) is aimed at adapting the myth of the extraterrestrial invasion to the changed socio-cultural context. From a geographical point of

view, the choice of San Francisco enhances the contrast between an urban environment constitutively open to difference and cultural multiplicity, and a system of administration and regulation based on bureaucracy, surveillance and control. As Meeker and Szabari (2012) write, in the film there are strong pressures on Americans to take part in the process of globalization: in this context, plants can be interpreted as symbols of the standardization process supported by multinationals, since they act as factors of cultural homogenization.

In this perspective, a scene is highly exemplary of the socio-cultural processes taking place: Matthew, after having unsuccessfully tried to stop the extraterrestrial invasion, assists from the dock to the loading of a huge ship. This vessel symbolizes the next conquest of the world by the host species and operates as a metaphor for the new status of global businesses on a planetary basis. In this sense, digital media act as accelerators of economic processes already in place at the end of the seventies. They provide these long-lasting phenomena with a communication infrastructure capable of facilitating rapid and efficient exchanges of information, goods and people on a global scale.

Sleep and technocapitalism

Both in Finney's book and in Siegel's film the protagonists take drugs to keep themselves alert, thus avoiding falling into sleep and being prey to aliens. Also Matthew Bennell in the 1978 film takes stimulants and gives it to Elizabeth. Abel Ferrara's version is set in a military base, also to establish a fascinating connection between the alien mutation and the socio-cultural issues related to the chemical exposure of soldiers committed since 1991 in the operation Desert Storm. Also in this movie, the hysterical psychiatrist Dr. Collins (Forest Whitaker) and the father of the protagonist, employee of a state agency for environmental protection, consume pills to remain constantly on alert.

However, it is in *Invasion* that the theme of sleep is strongly linked to socio-political reflections on the rhythms of neoliberal capitalism. Hirschbiegel's film begins with a sequence in which the protagonist, psychologist Carol Bennell (Nicole Kidman), is barricaded in a pharmacy, trying to put aside as many stimulants and amphetamines to resist sleep. Previously, we have seen how the theme of sleep it was loaded with political meanings: in that context, being awake and vigilant was equivalent to being ready to reject any attacks by the Communist enemy at any time.

In 2007, sleep was charged with further symbolic resonances, closely connected to surveillance regimes, hyperproductivity and over-consumption of digitized late-capitalism. Digital media innervate the Earth's surface of pe-

rennially connected communications networks. This powerful and pervasive infrastructure at the service of the globalized economy and finance of the 2000s has a shocking effect on the rhythms of life of Western populations. As John Crary (2013) argues, it is the citizens-consumers themselves who are conniving with respect to the tendency of late-capitalism to gradually erode sleep time. The ultimate goal is to forge a generation of subjects ready to produce and consume for 24 hours a day, seven days a week. Crary cites some military-funded research on the *Zonotrichia leucophry*, commonly known as the white sparrow, capable of staying awake for up to seven consecutive days in the migration period (Jones et al., 2008). The purpose of the research project is to verify how certain substances are able to prolong the vigilant time of soldiers during military missions. However, explains Crary, "as history has shown, war-related innovations are inevitably assimilated into a broader social sphere, and the sleepless soldier would be the forerunner of the sleepless worker or consumer" (Crary, 2013, p. 3).

In Hirschbiegel's film, the psychologist Bennell invests all her energy to keep away alien entities, which, thanks to the connivance of government authorities, manage to spread the transformation virus very quickly. In this screenplay, written by Dave Kajganich, the reversal of roles is an indication of an awareness on gender discourse: the heroine, driven also by the maternal instinct to protect her son, immune from the virus (and therefore at risk of suppression), wins where previous male heroes have failed. Returning to the central element of the sleep, Carol is forced to take drugs to keep herself awake. Invasion compares two alternatives: on the one hand, the threat of transforming into beings without emotions – however, this condition also contemplates the possibility of escaping anxiety, anguish, and psychic suffering; on the other hand, the need to constantly keep the daily pace high to maintain the rhythm of an ultra-competitive society, also due to the hyper-connectivity and the instantaneous circulation of information. The abuse of drugs in everyday lives is a clear reference to technocapitalism, which conceives sleep as an obstacle to the expansion of capital, consumption and finance. In this perspective, the juxtaposition between the stimulants that take men on the run to avoid falling into sleep – even here dangerous zone of suspension of consciousness – and sedatives, assumed by the aliens to rest, reflects a similar dialectic between individualism (conceived as resistance to alien colonization, in terms similar to heroic personal heroism in Finney's novel) and conformism (understood as homologation to the production/rest rhythms established by the alien command) (Loock, 2010).

Both Finney's novel and Siegel's and Kaufman's films contain a high metaphorical strength compared to the theme of replicability. As Arvidsson and Delfanti (2013) write, digital media distinguish themselves by being convergent, hypertextual, distributed, interactive, social and mobile. Digital infor-

mation is easily reproducible and can circulate rapidly: it can generate clones that are infinitely modifiable and repeatable within the processes of cultural construction in the era of remix culture (Navas, 2012; Campanelli, 2012; Navas, Gallagher & Burroughs, 2015). As de Sanctis Ricciardone (2007, p. 2) writes about Siegel's work, "the film can offer itself as a metaphor for deeper fears (…). In the twentieth century technological revolutions (…) allowed the serial reproduction of artistic, natural and traditional bodies through their multiplication by images, industrial objects and artificial materials. The serial forms assumed by the body snatchers show themselves to be without that aura that characterizes the authentic, as Walter Benjamin thinks (…) about the technically reproduced artwork". In a first sense, the metaphor of body snatchers can be used to symbolize a series of cultural processes – of which artists, designers, material substances are protagonists – able to scratch the authenticity of the work of art. In this case, the digital reproducibility of objects and images is a factor of amplification and refinement of processes of technical reproduction already in progress: for example, plastics and artificial polymers can be considered "decisive for the serial creation of body snatchers in our universes of consumption (…) [since] modern plastic was initially born (…) as a material to replace other materials, more expensive, deteriorable, and difficult to find" (de Sanctis Ricciardone, 2007, p. 5). In this sense, digital artifacts can be read exactly as "hunters" of bodies: these devices can translate almost any form of content into binary language and fix it on a computer memory.

On another level, the body snatchers of Jack Finney's novel "dialogue" with Jean Baudrillard's theory of simulacra. Starting from a progressive "de-realisation of the real", the French philosopher elaborates the concept of simulacrum, identifying three orders of simulacra (Baudrillard, 1993): "1) in the first order of simulacra, which he associates with the pre-modern period, the image is a clear counterfeit of the real; the image is recognized as just an illusion, a place marker for the real; 2) in the second order of simulacra, which Baudrillard associates with the industrial revolution of the nineteenth century, the distinctions between the image and the representation begin to break down because of mass production and the proliferation of copies. Such production misrepresents and masks an underlying reality by imitating it so well, thus threatening to replace it (e.g. in photography or ideology); however, there is still a belief that, through critique or effective political action, one can still access the hidden fact of the real; 3) in the third order of simulacra, which is associated with the postmodern age, we are confronted with a precession of simulacra; that is, the representation precedes and determines the real. There is no longer any distinction between reality and its representation; there is only the "simulacrum" (Felluga, 2015, p. 282). As Amendola (2009, p. 54) observes, "the simulacrum is placed beyond the true

and the false": it is an image without identity, a signifier without meaning. According to Baudrillard, with the advent of digital media the differences are canceled out, "because the double is generated by the same information contained in the original (...) We thus have a visual illusion that simulates or describes reality". Summing up the complex work of Baudrillard, his long reflection on the concepts of simulation and simulacrum produces the overcoming of dialectical dichotomies, which have always been central to Western thought: true vs. false, material vs. immaterial, current vs. virtual. So, even if in a metaphorical key, can we conceive the simulacra as empty bodies, ready to assume the appearance of other bodies, without maintaining any reference relationship with them? Are the body snatchers told by the works of Finney, Mainwaring/Siegel and Richter/Kaufman beyond the true and the false? Are they new entities, for which human categories based on reason, emotion and passions are not valid?

From a historiographical point of view, the body snatchers could be brought back to the level of re-production. They constitute a perfecting of the human, since they perform productive and reproductive tasks with an efficiency impossible to obtain with human labor. At the same time, the aliens guarantee an excellent performativity, because they have already accomplished that path of liberation from the emotions (positive and negative) of terrestrial existence.

The posthuman

In the narrative ecosystem that starts from Finney's novel it is possible to activate another theoretical-analytical path, examining those cultural products very close to the instances of post-humanism (Tirino, 2016; Lucci, 2016; Braidotti, 2013; Farci, 2012; Pireddu & Tursi, 2006; Marchesini, 2002) and transhumanism (Noyer, 2016; Hauskeller, 2016; Marchesini, 2014; Lilley, 2013; Tirosh-Samuelson & Mossman, 2012; Blake, Molloy & Shakespeare, 2012). In the 1978 film, Kaufman often insists on the themes of hybridization and difference, creating different points of contact between the biological femininity and the reproductive vitality of the plants. In this sense, the film undermines the specist hierarchy, according to which human beings are constitutively superior to plant beings. Plants do not act in a dimension separate from living beings; rather, they accelerate de-humanization processes, already in place before their landing on the planet. Plant beings urge humans to give up their affections and passions faster. The hybridization between the human and the vegetable opens up unexpected horizons of meaning. Already in the work of Kaufman, the transformation, shown in detail, outlines a new relationship between gaze, desire, living beings and plant beings: the hybridization between the organic and the alien is a source of terror, but also of aesthetic pleasure.

In Finney's narrative, the human race protects the planet from the proliferation of spores through the ability to reproduce and perpetuate the species. In Siegel and Kaufman's films, instead, the fascinating power of plants is exalted; in both cases, we explore the possibility that alien organisms are more performing and efficient in achieving typically human goals (productive and reproductive capacity). Plants are not hostage to primary needs and, therefore, can work uninterruptedly. They also produce images as a source of erotic satisfaction. Plants are an expression of vitality, power and aesthetic pleasure, because their lack of a stable form makes them adaptable to any body shell. In this way, they become a target of the voluptuous gaze of human beings. The beings transformed by the aliens appear as hybrid subjects. As they evolve and transform, these bodies give off a burr, exude humors and express a proteiform sexuality – a mixture of human, vegetable and animal. These mutant bodies are highly stimulating objects of study, as they anticipate today's debate about the overcoming of humanism in the digital age.

The attraction towards an indefinite area of the living experience appears more marked in the TV series *Invasion* (one season, 2005 - 2006), broadcast by the ABC network. In this story the alien threat lodges in water. After a hurricane, unknown alien life forms populate the waters of the town of Homestead in Florida. The hybridization between animal/alien forms and living human beings occurs through a sort of embrace, with which the extraterrestrial bright creatures modify the cellular structure of the local inhabitants. As much as it undermines emotional and affective stability in some people (eg Dr. Mariel Underlay), the transformation into a new organism appears even desirable, especially for those who are in a liminal stage of existence, as the young and probably virgin Kira Underlay (whose hybridization fails due to a heart problem) or the disabled policeman Lewis Sirk. As in previous works, the new species resulting from the fusion between extraterrestrial aquatic organisms and human beings seems more equipped and adequate than the human species to survive in the new climatic era, called Anthropocene (Grusin, 2016; Glikson & Groves, 2016; Moore, 2016; Purdy, 2015; Vince, 2014; Whitehead, 2014). This new species, in fact, is able to live under water and face, therefore, a possible rise of the seas, caused by global warming. In transhumanist terms, the television series seems to continue a path started by Siegel's film and continued by those of Kaufman and Hirschbiegel. These cultural products explore the possibilities of physical, erotic and emotional relationship with an alien race. These films suggest the need for a new ecological, antispecist thought, which denies the hierarchical distinction between the human being, as a thinking and acting being, and the undifferentiated organic (plant and animal) on which humanity exercised its power (Meeker & Szabari, 2012). The transhuman is thus constructed as a horizon and perspective of post-anthropological transformation, in which

hybridization and contamination between different living forms favor the leap towards new stages of life in biotechnological conditions very different from those experienced so far.

Digital Body Snatchers

At the end of her work on the remakes of Siegel's film, Loock (2012) wonders if the figure of the body snatchers are able to represent contemporary socio-cultural processes. In particular, the scholar believes that the film *Invasion* has been able to convey the typical fears of the 2000s in its narration: attacks by religious fundamentalists; bioterrorism; epidemics and viral infections and so on. In fact, the myth of the alien invasion is so wisely built by Jack Finney that the successive variants still retain its ability to represent the cultural anxieties of the respective era. Loock (2012) talks about a serial desire to revisit Finney's story at regular intervals. The reasons that explain this desire are different. First, this type of narration satisfies the needs of the public in a phase of loss and cultural panic.

The invasion formula, delineated by Finney – that is the penetration of an external, invisible and unknown threat, which makes use of familiar, intimate, close vehicles – is a very powerful cultural myth, able to understand the tendencies of the social evolution. In this perspective, Kaufman's film has a direct link with the incipient processes of economic and financial globalization. These processes will explode thanks to information and communication technology infrastructures, which allow the enormous flows of digital data to circulate around the globe. Similarly, the metaphor of sleep is used by Finney with the intent of recalling the diktats of anti-Soviet propaganda and McCarthyism, centered on the need to always keep awake in the face of communist danger. Hirschbiegel uses the same metaphor to construct a critique of the neoliberal economic-social system. In this film the dehumanization, induced by the alien contagion, is actually constitutively inscribed in the rhythms of production of digital tardocapitalism.

Jack Finney's novel shows an enormous cultural fecundity. The exploration of the relationship between copy and original in this work is the source of a further line of theoretical research. A first theoretical link concerns the thought of Walter Benjamin (2008). His reflections on the loss of the aura, caused by technical reproduction, are conceptual tools useful to investigate the themes of reproducibility of the original and the relationship between clone and body (original and copy). The symbolic potential, not yet fully explored, of Finney's masterpiece emerges more clearly if we consider the connection between the body snatchers, as biological artifacts emptied of any reference, and Jean Baudrillard's theory of simulacra. The digital society bases its processes of collective cultural construction on the technological possibility of disseminating information, with very low costs and very

quickly: replicability is the precondition, which allows digital media to produce an uninterrupted collective work of production and cultural re-elaboration. Once again, the novel bases its narration on the paradoxical status of the hybrid body. This body is full of risks and fascinating metamorphic perspectives – it becomes a fluid metaphor, capable of incorporating anxieties, fears and desires in different eras. In this way, *The Body Snatchers* projects its ability to represent the socio-anthropological mutation far beyond the fifties of the twentieth century. In his story, Finney lays the foundations of the posthumanist and transhumanist discourses of the contemporary digital world. If, as Luca Valera (2014, p. 481) explains, "the focal point of posthumanism consists (…) in a total contamination and hybridization of human beings with other living beings and machines", the narrative path, started in the novel and continued in all the film adaptations, about the attractive and dangerous hybridization between human and alien species, is already part of the philosophical and sociological reflection on the techno-anthropological mutation in progress (Tirino & Tramontana, 2018).

Conclusions

The analysis of the narrative universe of *The Invasion of the Body Snatchers* allows to highlight methods and results of a mediological approach to the study of literary phenomena. Finney's novel creates a narrative ecosystem, which we can conceive of as a complex object of communication. This object evolves over time: its components are in mutual relation and interact with technological and social environments. The mediology of literature explores the forms that this evolution takes over time. The analysis of the various remakes of the novel makes it possible to understand the cultural evolution of a given society: in particular, the central myth of the whole ecosystem – the invasion of living space – is associated with fears, desires and traumas, which change according to the transformations of society and culture over the decades. Furthermore, the mediology of literature describes how a narrative ecosystem can incorporate metaphors of digital society. The Body Snatchers' ecosystem, in particular, anticipates the cultural processes associated with economic-financial globalization and the post-anthropological mutation connected to themes such as post-humanism, trans-humanism and the Anthropocene. In this way, around very fertile cultural myths, literature tells about mutating subjectivities, within sociocultural processes of co-transformation involving technologies, media, places and bodies. In conclusion, the mediological approach conceives of literature as a form of experience of the imaginary. The mediology of literature allows us to study the complex forms with which icons and myths of the imaginary of the previous eras operate within the contemporary transmedial narrative univers-

es. This approach, therefore, allows us to investigate the transformations of the media in connection with social and cultural evolution. It is configured as a socio-cultural approach to the study of narrative ecosystems and, more generally, of the hypercomplexed narrative forms of digital society.

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