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Mind and Body Snatchers:
The Idea of the Human in SF Cinema

The difficulty of defining the SF film genre has been attributed to its tendency to overlap with neighboring genres such as horror and fantasy (Kuhn 1-11).[1] Furthermore, it might be the case that the fantastic genres in general (both cinematic and literary ones) "are more readily described as collective world-views [rather than] as patterns of repetitive action"(Wolfe 16). Finally, it has been argued that because they seem evolutionary by their very nature[2] the fantastic genres succeed better than other genres at transcending genre (Wolfe 29). After considering briefly some of the most influential models of genre evolution, I will attempt to determine whether the SF genre develops in accordance with these models or it follows its own 'law' of evolution.

In *Film/Genre* Rick Altman criticizes the incompleteness of purely structural, synchronic theories of genre that treat film genres as transhistorical. One such theory draws an analogy between human evolution and genre evolution. Every genre has its own 'life-cycle': "[G]enres are regularly said to develop, to react, to become self-conscious and to self-destruct" (21). The biological model of genre evolution divides the development of a genre into predictable stages: a genre passes through a phase of self-definition (an experimental phase during which the conventions of the genre are established), followed by a classical stage (relying on audience expectations or, in hermeneutic terms, on existing horizons of interpretations) until, arriving at a self-reflective stage, it grows tired of its own predictability and collapses into self-parody and intertextuality. According to the main proponent of this theory, Thomas Schatz, at its earliest stage

> a genre tends to exploit the cinematic medium *as a medium*. …At this stage, genre films transmit a certain idealized cultural self-image with as little "'formal interference" as possible. …Once a genre has passed through its experimental stage where its conventions have been established, it enters into its classical stage…one of *formal transparency*. Both the narrative formula and the film medium work together to transmit and reinforce that genre's social message. …[When] the genre's straightforward message has "saturated" the audience…the genre evolves into…the age of refinement…[and] its transparency gradually gives way to *opacity*: we no longer look *through* the form…rather we look *at the form itself* to examine and appreciate its structure and its cultural appeal. (Schatz, *Hollywood Genres* 38, emphasis in the original)

Rejecting Schatz's model as too simplistic, Altman offers a discursive, user-oriented approach to genre which considers genres "as a site of struggle among users"(*Film/Genre* 99): "[G]enres are not inert categories shared by all…but discursive claims made by real speakers for particular purposes in specific situations"(101).

Schatz's model of genre development is inapplicable to the SF genre. If we follow his model, keeping in mind that special effects are one of the strongest genre markers in SF films, we would have to say that the SF genre has never progressed beyond the initial stage of exploiting the cinematic medium *as a medium* or, conversely, that it has always already arrived at the last stage of opacity: after all, we don't look *through* special effects but *at* them. Steve Neale is right in pointing out that many new genres skip over some of these stages, developing a self-consciousness from the very beginning and thus never passing through a stage of formal transparency (212). The difficulty of theorizing the SF genre might be precisely a result of its strong investment in, and dependence upon, the development of the medium *as a medium* (special effects), which leaves the genre constantly in flux and prevents its *semantic* elements from 'freezing' into particular *syntactic* conventions.

In his influential article "A Semantic/Syntactic Approach to Film Genre," originally published in *Cinema Journal* 23, no. 3 (Spring 1984) and reprinted as an appendix to *Film/Genre*, Altman briefly summarizes the two most influential approaches to genre developed in the 1960s and the 1970s: "Whereas the ritual approach sees Hollywood as responding to societal pressures and thus expressing audience desires, the ideological approach claims that Hollywood takes advantage of spectator energy and psychic investment in order to lure the audience into Hollywood's own positions"(*Film/Genre* 219). Even though he criticizes these two approaches, Altman uses them to formulate his own model of genre evolution so that, by the end of his article, he has subtly equated ritual (the reinforcement and satisfaction of spectator expectations and desires) with the *semantic* building blocks of a genre, on one hand, and ideology (the industry's manipulation of the audience's desires) with genre *syntax*, on the other hand: a genre develops a stable syntax (a semantic genre becomes syntactic) whenever "the audience's ritual values coincide with Hollywood's ideological ones"(223). Altman recommends a semantic-syntactic approach to film genre over a purely semantic or a purely syntactic approach. His model of genre evolution, influenced by linguistics, relies on an implicit analogy between a language system and a genre. We might paraphrase the question he asks like this: is a genre (a language system) constituted by its vocabulary (signifying units) or by the relations between these signifying units i.e., by the genre's syntax, its "specific meaning-bearing structures"(220)?[3]

Altman's argument that more work needs to be done on the evolution of genres through "semantic or syntactic shifts"(225) is an important observation because it allows for a more fluid understanding of the relationship between syntactic and semantic elements: the enrichment of a genre by new semantic elements depends on the syntactic expectations generated from previous texts and, vice versa, the evolution of a genre's syntax depends on the semantic expectations generated by previous texts. For example, while the syntax of earlier horror films equated monstrosity with "the overactive nineteenth-century mind," the horror film gradually developed a new syntax, which equated the monster "with an equally overactive twentieth-century body"(224). As a result of this shift, and on the basis of the same basic semantic elements, the horror film genre developed "entirely new textual meanings, phallic rather than scientific in nature"(224).

According to Neale, the greatest contribution of Altman's semantic/syntactic approach lies in the fact that it is based on "the importance of history, on the recognition of heterogeneity, and on the possibility of difference, variation, and change"(217) while its greatest weakness is its inapplicability to a wide range of film genres. On the other hand, J. P. Telotte has criticized Altman's model for depending too much on a linguistic definition of genre as a language with a strictly determined formal grammar. Instead, Telotte proposes to think of genre

> as a kind of colloquial speech, the popular use of a language that very often casts grammar aside, gives to words whole new meanings—meanings prone to shift with time or completely fall out of use, as it fashions its own quite serviceable slang. In this sense, the science fiction film, as an example of a particular cinematic 'slang', invariably has its own meanings, which attach to its most identifiable concerns. (18)

Telotte seems to presuppose the existence of some kind of *über-genre*, of which the SF genre is one particular instance. Moreover, he conceives this hypothetical über-genre exactly as a language with a formal grammar, whose variations result in different genres (different cinematic 'slangs'). Telotte misses the point when he claims that Altman's model does not allow for variations in a genre: in fact, what Telotte calls "cinematic slangs"—particular genres as instances of the über-genre—are, in Altman's model, the syntactic variations *within* a genre that determine the genre's evolution.

While Altman's semantic-syntactic approach accounts for genre evolution either through the interplay between semantic elements and syntactic horizons of expectations or between syntactic elements and semantic horizons of expectations, it does not allow for a third possibility, namely the interplay between two semantic elements that results in a syntactic shift. In what follows, I argue that in the case of the SF genre the relationship between two semantic

elements—the theme of transformation (the theme of the human/non-human) and special effects—has generated a variation in the syntax of the SF genre. My analysis is complicated from the very beginning by the difficulty of determining whether special effects belong to the semantics or to the syntax of the SF genre. It would seem that, following Vernet's identification of technical elements as part of a genre's semantics (Altman 220), special effects should also be considered part of the genre's vocabulary. In fact, it is precisely this interpretation that underlies the argument, put forward by Tom Gunning among others, that cinema started as a vocabulary without a syntax (syntax developed only, and quickly, with the narrativization of films).[4]

I am, nonetheless, aware that the notion of special effects might be too broad to qualify readily as a semantic element: for example, while we can loosely associate the long tracking shot with the genre of the Western, there isn't a particular kind of special effect we could claim as typical of the SF genre.[5] According to Altman, semantic elements might include "common topics, shared plots, key scenes, character types, familiar objects or recognizable shots and sounds" while syntactic elements could refer to "plot structure, character relationships or image and sound montage"(89). A special effect, however, is neither a particular kind of shot (semantics) nor a particular kind of image montage {special effects can be used for continuity purposes (montage between shots) but they can also be used within the same shot, to create a multi-layered image (internal montage)}. Special effects are, therefore, somewhat different from both semantic and syntactic elements: they seem to be an 'effect' of the film medium as such rather than a particular signifying unit (such as a panning or a tracking shot). Thus, it is the medium itself that accounts for the evolution of the SF genre. Furthermore, whereas any other semantic element generates genre development precisely by arresting its own development--turning into a recognizable convention--this is not the case with special effects: it is not possible to isolate particular special effects and attribute to them particular significations. This is, however, possible with specific film techniques. Thus, in an interview for *Cahiers du Cinéma*, Roland Barthes asks "whether a cinematographic procedure can be converted, systematically, into a signifying unit" ("Roland Barthes" 279). There have been attempts to produce a taxonomy of specific film techniques corresponding to identifiable, more or less stable signifieds: Barthes cites as an example the association of a high angle shot with the signified "domination" (279).[6] By contrast, we cannot associate the creation of male/female mattes, the use of miniature models, or dissolves exclusively with the SF genre, thereby turning that type of special effect into a genre marker.

Thus, of all semantic elements that can be considered on analogy with linguistic units (with Barthes' qualification, however, that semantic elements in film correspond to much more diffuse meanings than their linguistic counterparts)[7] special effects are the least linguistic (the

most diffuse as signifying units and, thus, the least conventional). Rather than stabilizing other semantic elements of the SF genre and, together with those semantic elements, establishing a consistent, recognizable genre syntax, special effects tend to destabilize the genre's semantics and shift its syntax.[8] This is the case even with SF film remakes, despite the common sense expectation that remakes would stabilize a genre.

Among the most commonly cited SF genre markers, apart from special effects, are the fluidity of SF iconography, the opposition between the strange and the familiar, and the theme of the human and the nonhuman[9] or the real and the artificial (Neale 100-103). In what follows I will focus on the way in which special effects generate a variation in the SF genre syntax by destabilizing one of the most genre-inflected semantic elements of the SF film, the theme of the human, especially as it is articulated through another, closely related theme, the theme of the double.[10] The duplication or doubling of a human being consistently reveals certain implicit assumptions about the nature of matter (material beings in general and the human body in particular) and about the relationship between mind and body, one of which gets privileged as signifying the truly human while the other is disparaged as its double (hence as inessential, open to doubling or, in later films or remakes of earlier SF films, to mutation).

Special effects have played a significant role in the evolution of our ideas about matter. From its very beginnings, cinema has been interested in the nature of matter. Méliès's trick films explore this problem by means of experimenting with various ways of representing matter (both human bodies and objects). Many of his films are literally about illusion, magic, and supernatural phenomena (for example, *Extraordinary Illusions*, *The Enchanted Well*, *The Apparition*, all made in 1903), which they examine through stop motion photography, double exposures, super-impositions, fade-ins and fade-outs, dissolves, etc. In *Extraordinary Illusions*, a magician transforms a doll into a woman, the woman into a man, into several other women and, finally, into a pile of rags. In *From Paris to Monte Carlo* (1905), a man is deflated and then air pumped into his deflated body until he springs back to life. In *Tehin-Chao: The Chinese Conjurer*, a woman is transformed into a dog, a man, several hens, and then 'teleported' from one place to another. In *The Enchanted Sedan Chair*, a doll is transformed into a woman, after which the woman and another man take turns disappearing into each other until they are both 'folded' into a third woman. A little devil transforms himself into a spider, with a human face and a spider's body (much like the protagonist in the original *The Fly*) in *The Mysterious Retort*. These early films already imagine the human body as an object that can appear and disappear, that can be substituted by another object or body, or as an empty vessel open to any kind of manipulation.

SF films return to these origins of cinema in magic; however, what before appeared as magic now becomes a manifestation of the inherently unstable nature of matter. Magic is grounded scientifically: as the scientists-protagonists in *The Fly* and *Invaders from Mars* explain, matter is not solid at all but composed of electrons; therefore, it can be disintegrated and reintegrated. While Méliès's camera tricks played with matter, making it *appear* magical (immaterial, unstable), special effects now reveal matter as constitutively 'magical'.[11] The shift from dissolves or super-impositions, for example, to mechanical effects and, later, to CGI (e.g., digital morphing) is the process by which special effects have evolved from external tricks manipulating only the appearance/disappearance or the visible movement of matter, as in Méliès's films, to representations of processes of change and mutation taking place *within* matter.

Insofar as the medium itself (as a certain existing level of technological development) is crucial to SF films, the evolution of the SF genre depends on a continuous translation of *objects of representation* into *techniques of representation*, a process that can be observed even at the pre-cinematic stage in the evolution of cinema. Thus, in an article entitled "Twenty-Five Heads under One Hat: Quick-Change in the 1890s" Matthew Solomon situates what he calls "protean artistry"—for example, chapeaugraphy and shadowgraphy—in the pre-cinematic, nineteenth century theatrical tradition of transformational performance. Méliès's trick films eventually "substitut[ed] the transformations of film editing for those of the performer"(15), thereby leaving unexplored the fluidity of performed transformations, which Solomon compares to the 'plasmaticness' Eisenstein attributed to the animated film. SF cinema, especially digital cinema, returns to this path through its explorations of "the plasmatic potential" of morphing (16-17).[12]

The translation of objects of representation into techniques of representation can be illustrated through the example of the body double as a manifestation of the SF theme of transformation (of the human into the non-human or vice versa). As a subject matter of cinema in general, and a semantic element of the SF genre in particular, transformation has undergone a series of 'transformations'. In 1950s SF films (*The Thing*, *It Came from Outer Space*, *Invaders from Mars*, *Invasion of the Body Snatchers*) the non-human is *an alien* from another planet that tries to impersonate a human being. In the remakes of those films (except perhaps the remake of *Invaders from Mars*) the non-human becomes *the human body* itself. In more recent films, *The Matrix* for example, the non-human is identified with *the unreal* (it's a sentient computer program with the capacity to assume any human form, and in this respect similar to a pod). In the two *Invasion of the Body Snatchers* films *transformation* is literally an *object of representation*: the film represents the transformation of the human into the non-human in the most direct and obvious way, namely through the duplication of the human body in an alien double, a 'pod'. In

the original, special effects are limited to make-up and puppetry. The alien double is a puppet but no special techniques of shooting it are employed: we see the pods as already almost completely developed. In the remake, however, transformation is no longer just an object of representation (though there is still a second body) but also a certain technique of representation: mechanical effects are combined with shooting every step of the transformation one at a time and then editing together these shots, thereby allowing us to actually witness the pods growing.

Transformation is both the object of representation (the product of transformation) and a technique of representation (mechanical effects) in the remakes of *The Thing* and *The Fly* as well. *The Thing* remake "use[s] mechanical effects to show character transformations occurring within a single shot, such as heads stretching or body parts lengthening"(Wolf 89). Such transformations "[are] done in a series of close-ups and cuts, with no single shot containing more than a step in the process"(89). Although these films do not yet use the computer technique of morphing, they already conceive doubling on the principle of morphing but have to wait until the technology to represent this kind of transformation has become available. This happens in 1991 when *Terminator 2* is released.[13] In this film transformation as an object of representation is translated visually, and quite literally, into the computer technique of morphing: the object overlaps with the technique of representation. *The Matrix* (1999) completes the cycle: here the double of the real body is the virtual body (in the film, the virtual body is identified with the unreal, and hence with the non-human). Since the virtual body is only "a residual self-image, the mental projection of one's digital self," as Morpheus explains, it demands a new kind of technique to represent it. The virtual double of the real body is still an object of representation (the actor's real body is still used, although this will no longer be the case in the third installment of the Matrix trilogy) but its unreal or non-human nature is also reflected in the technique of representation: in the most breathtaking scenes in the film we see the virtual body from *virtually* all possible (humanly impossible) points of view thanks to the technique of bullet time photography. Like stop motion photography, bullet time photography involves the production of a series of still photographs of the object, one still at a time. However, in stop motion photography the different stills are simply edited together, while in bullet time photography, computer generated frames ("interpollations") are inserted between the real frames.[14] Varying the number of such "interpollations" stretches out or compresses a movement. The virtual body creates or demands its own technique of representation, namely the doubling of real time and real movement, which is nothing other than their virtualization.[15]

The question motivating my discussion of the evolution of the SF genre was posed, but never answered, in Annette Kuhn's Introduction to *Alien Zone*. Drawing attention to the fact that

what we know about the genre of SF has come from textual analysis of individual films, Kuhn points out that "these textual readings do not always address the specifically cinematic qualities of the genre with the sophistication with which they handle questions of theme and narration. However, it might be asked, *do cinematic codes of visibility and developments in special effects and in sound and color technologies connect with thematic transformations of the genre?*" (9, my emphasis). In *Science Fiction Cinema: From Outerspace to Cyberspace* Geoff King and Tanya Krzywinska answer this question affirmatively, though not specifically with respect to the theme of the human that I am concerned with here. They claim that dystopian visions have been more prevalent in SF films than utopian ones because special effects "lend themselves rather more immediately to the presentation of darker futures or alternatives"(16).[16] This argument illustrates the process by which something like a semantic feature (special effects) can generate a syntactic transformation of the genre.[17]

Because of the precarious position of special effects on the border between semantics and syntax, I consider them as both motivating[18] a reconceptualization of the human (through a reconceptualization of the relationship between mind and body) and, at the same time, responding to changing ideas of the human. Specifically, *special effects have introduced a variation in the syntax of the SF genre by shifting our understanding of the human from the identification of the mind as the 'seat' of the human to the identification of the body as the criterion of humanity*. In earlier SF films transformation affects the mind but is displaced on the body, which serves as a metaphor for the manipulation of the mind. As the SF film shifts the process of doubling or transformation from the mind to the body, thereby appointing the body as the criterion of humanity, transformation itself shifts from an object of representation to a technique of representation. Ironically, as the human comes to be defined through, and depend upon, the body, this definition comes to depend, in turn, on the technique of representation. Even as differences between the human and the non-human are situated on the level of the body or the visible, the human, rather than becoming something obvious and given (insofar as we expect the surface, the visible to be obvious) turns into a function of the technique of representation. The human is no longer an object of representation (something stable, material) but a technique of representation: it has become part of the evolution of the film medium itself. This is the paradoxical law of evolution of the SF genre: while matter (the body) has become the privileged 'site' of representing differences between the human and the non-human—and this has definitely something to do with the evolution of special effects—such differences are dematerialized or reified into techniques of representation. Even as SF film insists that it can have an indexical relationship to the human--that the human is representable, visible--it withholds that possibility

by making the human dependent on the technique of making it visible.[19] To demonstrate my argument, I will consider the following films: *The Thing* (1951 and 1982); *It Came from Outer Space* (1953 and 1996); *Invaders from Mars* (1953 and 1986); *Invasion of the Body Snatchers* (1956 and 1978); *The Fly* (1958 and 1986).[20]

A brief explanation of methodology is in order. Since this is a comparative analysis of several films, which is supposed to demonstrate a model of genre evolution particular to the SF genre, the discussion will depend on several overlapping parallel lines of inquiry: 1) comparing originals with their remakes[21]; 2) analyzing both originals and remakes as representatives of the SF genre (here comparisons between later originals and remakes of earlier films may supercede in importance strictly chronological comparisons); 3) using later SF films (such as the first episode of *The Matrix* trilogy), which are neither remakes of older films nor the source of remakes themselves, to illuminate the overall argument about SF genre evolution. The main principle of comparison uniting these three lines of inquiry will be the relationship between mind and body (in terms of invasion, imitation, doubling, assimilation, fusion, mutation, virtualization) as indicative of different notions of the human (and the non-human) generated by the development of special effects and resulting in a shift in the genre's syntax.[22]

A comparison of the representation of the non-human in the originals of the films considered here reveals the following progression: duplication of the human body with no reference to the mind embodied in the double (*The Thing*); duplication of the body that does not affect the mind (duplicated bodies are literally kept separate from original bodies: *It Came from Outer Space*); duplication of the body which serves only to hide (and at the same time signify) the manipulation of the mind (*Invaders from Mars* and *Invasion of the Body Snatchers*); duplication of the body on a genetic level rather than merely as a physical form (*The Fly*). In the first two cases, the doubling of bodies does not pose a serious threat to the human either because the non-human is anthropomorphized (*The Thing*) or because the narrative does not allow a serious confusion between the human and the non-human but presents the case as an abduction of the human and its eventual liberation (*It Came from Outer Space*). In the next two films (both of them invasion narratives), the duplication of the body poses a more serious threat but that threat is neutralized by the largely metaphorical function of body doubling as a symptom of an even more serious threat, the duplication of minds. In the last film, *The Fly*, the body is neither merely doubled nor merely a metaphor for the duplication of the mind.

The representation of the human (and the non-human) in the original films and their remakes can be compared not only with respect to the phenomenon (and the idea) of duplication but also according to two other criteria: 1) whether the non-human is represented as external or

internal to the human body, and 2) whether the non-human has a material being or not. This kind of comparative analysis demonstrates the influence of special effects as SF films move from representing the non-human as external to the body and possessing a material being of its own, to representing it as internal to the body and yet immaterial. In *The Thing* (1951) the alien is a human-looking creature (a particular material entity) duplicating the human form: a single copy which is, however, individuated even in its abstractness insofar as it copies the human form *in general* rather than a particular human body. In *The Thing* (1982), on the other hand, the non-human is represented as internal to the body and, rather than having a material existence of its own, is more accurately described as a force of (or tendency toward) duplication and mutation (obscene, unregulated, irresistible growth). In *It Came from Outer Space* (1953) the non-human is external to the body (copies are kept separate from their originals) and it has a material being (a shapeless creature with a big eye in the middle of its 'face'). In *It Came from Outer Space* (1996) the non-human is no longer a self-sufficient creature but an amorphous bluish substance which shows through when the double is damaged (e.g., when Stevie is wounded) and into which malfunctioning or imperfect doubles disintegrate. In *The Fly* (1958) the non-human is external to the body (a fly head is attached to a human body and a human head is attached to a fly body), possessing an independent material existence since the protagonist's transformation is a matter of assimilation, not fusion. In the 1986 remake the non-human becomes internal to the body (it develops out of the body as a result of genetic fusion) and doesn't have a material being of its own—the non-human is only the *effects* it produces on the body, metamorphosis as a process rather than a product.

All of these films problematize the notion of the human, whether it is in terms of duplication, invasion, assimilation, or mutation.[23] However, the criterion according to which a being is deemed human or non-human changes. What remains constant is that the threat of losing the human always problematizes the relationship between mind and body, as if the human could only save itself by hiding in one or the other, but never in both. In order to set itself apart from its opposite, the human always splits itself into two and surrenders one part to the non-human in order to save (claim) the remainder as its essence. As it becomes technologically possible to represent the body in different stages of transformation and dehumanization, this remainder has been increasingly identified as material (bodily) rather than mental. Special effects have contributed to this tendency to situate the human on the surface where its opposite (the non-human) is more readily representable. Dehumanization in later SF films or in remakes of earlier ones tends to be represented as a visible (bodily) difference rather than as the perfect duplication of bodies hiding an internal difference (as in the 1950s alien invasion films)--and this certainly

has something to do with the availability of better technological means for representing visible differences.[24]

To demonstrate how earlier SF films identify the human with the mind rather than with the body, I will look at the way in which the original *Invasion of the Body Snatchers* displaces (and displays) the loss of the human onto the body thereby distracting us from the even more disturbing threat of mind duplication/manipulation. In the film the doubles of human bodies (pods) appear from nowhere: the first one turns up on the kitchen table in the home of one of the characters. The pod looks "unused," in perfect shape inside and outside, its blank face lacking any detail or character. It is not a corpse (its organs function perfectly) but it is not alive either (it doesn't breathe and it has no fingerprints). Initially unformed and anonymous, it is gradually individuated. The process of individuation happens entirely (and only) on the level of the body: the body grows to be the size of one of the characters and, more importantly, it reproduces the bleeding hand of the original prototype (the real body). Since the bleeding is not something essential to the real body (the character just happens to cut himself), that it is reproduced in the copy (the pod) is meaningful: the reproduction is perfect and complete i.e., it is entirely superficial. The pod does not attempt to replicate something essential to the real man but simply to produce a faithful copy of the current state of the real man's body, down to the most circumstantial detail, such as the bleeding hand. Significantly, the pod is not produced at once but gradually: in the beginning stages it resembles an undeveloped photograph which gradually grows clearer and clearer, every little detail eventually coming into focus. In fact, what is duplicated here is not the original human body as such but rather the very process of individuation through which every real human body passes: the human body, like the pod, also begins as an amorphous looking thing inside the womb, which is precisely why one of the characters compares the pod to an infant. The alien double of the human body copies the process of individuation itself rather than the result of that process (the real human body). Insofar as the duplication of the body merely reproduces a very real process which all living beings go through (the process of growth), it is not the body that is snatched or duplicated (despite the misleading title of the film) but the mind. The duplication of the body is only a necessary step toward the real duplication (and this is no longer a mere duplication but a transformation) of the mind. This is why in both films, but more so in the remake, real bodies and pods are represented as dependent on each other i.e., as ontologically equal. Consider the mud bath scene in the remake in which Jack Bellicec's pod is lying in one of the massage booths, the real Jack lying in the adjacent booth. Whenever the pod opens its eyes, the real (human) body starts to fall asleep and, conversely, as soon as the real body wakes up, the pod closes its eyes: the existence of the real

body is derivative of the pod's existence just as the pod's existence is derived from that of the real body.

The visual representation of the birth and growth of the pod distracts us from the real snatching of the human mind. If characters in the film can confuse real people with pods, it is because there is, in fact, no essential difference between real bodies and their copies, both of which follow the same stages of organic growth (that the copies are produced from seed pods is secondary to the fact that they replicate the growth and individuation process of real bodies, though of course at a highly accelerated rate). Thus, when Miles and Ellen want to pass as aliens, they must change their affective state, not their physical appearance. What really distinguishes humans from their doubles is the mind: while the human mind is continually evolving, the snatched mind (the pod's mind) is static. The pod's mind is just a bad imitation of a human mind because the latter is not an object that can be reproduced at once, its memories captured, summed up and duplicated without any loss. The distinguishing feature of the copy of a human mind is the fact that we never see it as a process: we see the copy of the body evolve from an initial state to an individuated state but we never see the new mind in its process of evolution: the pod's mind is simply "reborn into an untroubled world," content, ignorant of pain and suffering.

Interestingly, *The Matrix* (1999) performs a gesture of displacement (though in the opposite direction) similar to that of *Invasion of the Body Snatchers*, in which, to repeat, the manipulation of the human mind is displaced on the body (the pod) even though it is the mind that is snatched, not the body. The characters in *The Matrix* claim they are fighting to free human minds, but in fact this liberation involves the reclaiming of the body, the senses. At their first meeting Morpheus informs Neo he has been "born into a prison that [he] can't see, smell, or touch." When Neo is unplugged from the matrix, his muscles are atrophied and his eyes hurt because he has never used them before. His body resembles a pod: it's unused, unlived, and it even bears a visual resemblance to the pod (infant-like, naked, the head shaved). When Neo 'wakes up' from his dream life in the matrix, he sees an endless field of pod-like receptacles (in which he and million other human bodies are being grown by the machines as a source of energy) reminiscent of the pod farm in the *Invasion* films. The similarity between the pods and the human bodies grown and harvested by the machines becomes even more obvious when Smith explains to Morpheus that the first matrix ever designed was a disaster because it created a happy world, free of suffering, to which, however, humans could not adapt because "human beings define their realities through misery and suffering." Similarly, the last human beings in the *Invasion* films refuse to be "reborn into an untroubled world," a world free of suffering. Freeing Neo's mind demands literally the unplugging of his body: the unplugged body, the suffering body, becomes

the only criterion of reality and humanity in a world that exists only as "a neural-interactive simulation," where the real has been reduced to "electrical signals interpreted by [one's] brain." Accordingly, at one point in the film Mouse remarks: "To deny our own impulses is to deny the very thing that makes us human." Suffering and mortality are the surest indicators of reality while the mind, even the liberated mind, disguises the real. When, following his first sparring match with Morpheus, Neo bleeds and exclaims in surprise "I thought it wasn't real," Morpheus responds, "Your mind makes it real." If one dies in the matrix, without yet having been unplugged, he would not even know that he was dead because as long as the mind keeps on producing electrical signals that are interpreted by the brain as corresponding to real sensations, he cannot know that his body is dead. Only the unplugged body can die and feel/know that it's dying. In the non-human (unreal) world of the matrix, "there is no spoon," there is no body, there is no death.

It is important to note that in *Invasion of the Body Snatchers*, even though it is the mind rather than the body that is being snatched, a mind cannot be snatched directly but only through the body. It is not enough to invade the real human body and brainwash the mind: it is actually necessary to produce a substitute body. Although on the surface the film seems to be about the simple duplication of bodies, duplication is always based on a profound belief in the embodied nature of the mind: a new mind requires a new body. Paradoxically, precisely the same body has to be produced, a perfect replica, a reconstruction of the original down to the last detail of its present state of being. In fact, the usual distinction between surface/body and depth/mind is reproduced within the body itself: the body has a surface and an essence. The copy of the body (the pod) reproduces only the superficial level of the body ("the bleeding hand" level) but does not reproduce the essential level of the body, the fact that the body is a *lived* body with its own history. The copy of the body looks unused precisely because it hasn't been lived. The production of a new mind is thus dependent on a *partial* reproduction of the body: the new mind cannot be produced simply by invading the old (original) body because the old body still consists of these two levels (depth and surface). A new, simplified mind (unused, devoid of emotions) can only inhabit an equally unused, simplified body. Thus, even though the duplication of the body pushes us towards the obvious conclusion that the mind and the body are separate entities and that a mind can be inserted into a body or a body detached from the mind, in reality the film asserts the ultimate embodiment of the mind: a new mind requires a new body and a new body is unavoidably 'inhabited' by a new mind. Similarly, in the original *It Came from Outer Space* the real human bodies are held hostage in the alien spaceship and released in the end, suggesting that human and alien minds require two separate bodies.

Although the pods are presented as impostors, impersonators, their real function in the film is metaphorical: the film is more interested in what the pods can tell us about human beings rather than in the pods themselves. At one point in the film, as Miles and Ellen are taking a break from running, Miles observes that human beings are constantly growing callous, unfeeling, and that only when humans have to fight for their humanity do they realize how dear it is to them. The zombie-like body snatchers are therefore symbolic representations or projections of a certain natural tendency within the human. These creatures growing out of seed pods and deprived of emotions are, in the end, only an extreme version of the human. In fact, human beings who have not yet been reborn in their new bodies are already dehumanized: they wait in line for their pods and voluntarily take them home i.e., they choose to become pods. That exterminating the pods is nothing more than exterminating an ugly side of ourselves is corroborated by the fact that the body snatchers attack when human beings are asleep. Inasmuch as sleep is a regular part of human life, body snatching is not essentially different from dreaming in which, too, one becomes someone else/something else. The original film's director, Siegel, confirms this metaphorical interpretation of the non-human. In an interview with Kaminsky, included in the laser disk edition of the film, Siegel admits that he intentionally didn't use many special effects (even though he worked on special effects at Warner Bros.) deciding instead to focus on the performance of the actors. The film, he says, is not about vegetables from outer space but about humans (humans, rather than aliens, are pods: the spark, the passion has left them). Siegel's original title for the film--"Sleep No More" (a reference to Hamlet's soliloquy on suicide)--was changed by the studio to *Invasion of the Body Snatchers*, stressing the alien invasion angle.

To sum up, special effects are not crucial to the original version of the film because the difference between the human and the non-human is conceived metaphorically: the doubles of human bodies (the pods) are used as a metaphor for the danger of dehumanization that affects the mind, not the body. Since at this stage the human is identified with the capacity for feeling and free thought, both of which are aspects of character psychology rather than of physical appearance, special effects are not necessary to reveal the essential--internal, *invisible*--difference between the human mind and the pod's mind. Conversely, it is because of the sparing use of special effects that we are reassured in the stability and solidity of the human body—despite its duplication--our anxieties reflected instead in the characters' behavior, their mental (affective) states.

The 1978 remake[25] also plays on the notion of the non-human (the pod) as a metaphorical (hence exaggerated) representation of the human. The action no longer takes place in a small, all-American town, but in a big urban area (San Francisco): podism becomes a metaphor for urban

alienation, the snatching of bodies signifying the dissolution of communal ties. When Matthew (Donald Sutherland) attempts to help Elizabeth figure out what could have made her boyfriend different (he has been turned into a pod), he lists the following sociologically-inflected explanations: the boyfriend could be gay, Republican, or he could have a social disease. Even the camera techniques used in the film point up the social (metaphorical) reading of the alien invasion theme: there are long sequences of disorienting, maniacal panning and tracking shots of San Francisco streets, in which the point of view is left discomfortingly unidentified. (It almost seems that the point of view could be that of the invisible seed pods floating in the air, looking for the next 'body' to snatch.) The psychiatrist (Dr. Kibner) also hints at the metaphorical significance of the pods' invasion by trying to persuade Elizabeth that she is making up a story about an alien invasion in order to cover up or justify her failure to confront real problems (such as the dissolution of marriage as a social institution). When the pods finally catch up with Matthew and Elizabeth, Dr. Kibner (who has meanwhile become a pod) pleads with them: "Don't be trapped by old concepts. You are evolving into a new life form," implicitly identifying podism with social liberalism.[26] The disturbing implication of the remake is that the non-human might not be such a serious threat to the human after all, because the human has already been snatched. In the chilling final scene of the film, Matthew pretends to be a pod (since he doesn't know whether Nancy is one): thus, there seems to be no difference between the shrink, who pretends to be a human after he has already snatched a human body, and Matthew who is (perhaps) still human but pretends to be a pod. The human and the non-human are equally convincing as impostors.

Invasion of the Body Snatchers expels the body in order to define the human as independent from it: the duplication of the body serves only to underscore the impossibility of imitating the human mind. Thus, the duplication of the body is used to affirm the human rather than to question it. The same holds true of the original *It Came from Outer Space*. An alien, having adopted a human form, urges the human being he has copied not to be afraid: "It is within our power to transform ourselves to look like you or anyone else. Don't be afraid. We cannot, would not, take your souls, minds or bodies." Duplication here is not a matter of assimilation or fusion but of the simple reproduction of a model which doesn't threaten to supplant the model. Thus, all original human bodies that have been copied are held hostage in the aliens' spaceship, in a realm completely and safely divorced from the realm of the copies, like indestructible Platonic Forms. The alien in the film, "resembl[ing] an encephalic mass with one large unblinking eye in the middle" (Clarens 124), produces copies of human bodies by 'photographing' them: the alien eye sees a human being, the human screams in terror, is engulfed in smoke, and disappears. Since we barely see the rest of the alien's body, the alien is reduced to an enormous, transparent eye, a

perfected technique of reproduction (for example, the alien can stare directly at the sun). There is never a confusion between the human and its copy because of the distinctive way in which the copy speaks. In fact, the film suggests that imitation is not that different from disguising oneself by wearing another person's clothes: for example, the copy of John Putnam's girlfriend, Ellen, tries to pass for her by wearing her clothes. We are constantly reassured in our ability to keep real bodies and copies separate: for example, we see Jack Putnam (the protagonist) talking to his own copy and, later on, Ellen, released from the spaceship where she has been held hostage, sees John and his copy but does not hesitate for a second which of the two is the real John.

In contrast to the perfect, stable copies of human bodies in the original of *It Came from Outer Space*, the copies in the remake are markedly imperfect. When Stevie's copy becomes sick, after he cuts his arm on a nail, the wound reveals the bluish substance of which the copy is made. Steve's sick double looks both human and inhuman: his appearance is ambiguously human (on account of his unnaturally bluish, aging, crumbling face and sagging eyes) but his point of view and his voice are not recognizably human. The copy is no longer stable and impenetrable (and, by implication, neither is the real human body) but reversible: when Jack's tripod penetrates the copy of a dog, the dog turns inside out, its 'flesh' dematerializing back into the bluish substance that produced it in the first place.[27] The special effects used in the remake are already beginning to foreground visible (bodily) differences—rather than mental differences--between the human and the non-human. Still, the growing instability or permeability of the body is attributed only to the copy: the real human bodies are safely kept intact in the spaceship. They have been 'devoured' whole and thus have lost nothing of their original solidity as material beings.[28]

In the original *Invaders from Mars* a spaceship lands in the backyard of a typical American family. Gradually, people (including David's parents) start disappearing (falling into a hole in the sand where the spaceship landed) and when they reappear, they look the same but act differently. Human bodies are not duplicated; instead a tracking device, through which the aliens manipulate them, is implanted in their necks. The human body is reduced to a transmitter of signals. The alien, represented as a head in a glass bowl, is "mankind developed to its ultimate intelligence": since it is a distillation of what is supposed to be the epitome of the human—the mind--the alien does not need a body but is pure mind.[29] While the original foregrounds the manipulation of the mind (unlike *Invasion of the Body Snatchers*, here the manipulation of the mind does not necessitate the literal duplication of the body), the remake emphasizes the manipulation of the body, which comes to resemble a mechanical doll. Thus, in one of the scenes, the alien creature 'speaks' and the camera zooms in on the back of the teacher's neck: we see the device controlling her brain turn and we hear her repeat/translate the alien creature's words.[30]

The narratives of SF films that treat the mind as the marker of the human tend to be dominated by themes of manipulation, control, brainwashing, paranoia: for instance, the originals of *Invasion of the Body Snatchers*, *Invaders from Mars*, *It Came from Outer Space*. Such films are more invested in character psychology—specifically, in the problem of depersonalization--and therefore rely to a lesser degree on the use of special effects. In contrast to these films, the remake of *The Thing* represents transformation as a purely visual (bodily) process rather than as an internal process of depersonalization. This is also the case with the remake of *It Came from Outer Space*—in which the duplication of the human is not registered as a complete loss of emotion, as in the case of the pods—as well as with the remake of *The Fly*, in which Seth does not experience a loss of identity (he remains capable of rational thought until the end when he 'asks' Ronnie to kill him) but a genetic transformation.

In the remake of *The Thing* (which succeeds chronologically both the original and the remake of *Invasion of the Body Snatchers*) the more sophisticated special effects available at the time of its production (the mid 1980s) have already moved the difference between the human and the non-human outward, situating it on the surface, 'on' the body. As the characters' paranoia escalates, one of them asks: "If I was a perfect simulation of myself, how would you know it wasn't me?" It seems that nothing has changed: the real difference seems to be still covered up by the illusion or simulation of the invaded body. However, whenever the humans identify a non-human among them, what used to be an internal difference erupts and visibly affects the body, which can no longer sustain its monstrosity: bodies are torn apart, sprouting disgusting tentacles and limbs. The invaded humans are mentally identical to the real humans—for example, they reason in the same way and do not appear deprived of emotions like the pods—but what they find hard to keep up is the physical simulation of a human body. In *Invasion of the Body Snatchers* difference was ideal and its representation metaphorical; now it becomes real and literal.

The Thing in the original version of the film is a dumb, anonymous looking body, making growling animal sounds, stumbling around in confusion.[31] Because it is not individuated in any way, the Thing is not really a specific being but rather a representation of what a real alien would be like if it were possible to see it: it is more of a metaphor for the real thing which cannot be imagined in great detail. The SF imagination seems undeveloped in the original (hence the anthropomorphizing of the alien) or it is developed but the technical resources necessary to materialize it are not yet available.[32] Significantly enough, the remake omits the subtitle of the original: instead of *The Thing from Outer Space*, the remake is called simply *The Thing*, no longer identifying the alien origin of the thing because, as the film will show, the thing very soon proves to adapt so well to human bodies that it almost appears natural to them.[33] In the *Invasion*

films the non-human 'grows' outside the human, or alongside it, until it replaces the human. The non-human in *The Thing*, however, grows within, invisible until it suddenly tears apart a body, exposing its internal organs. In fact, there are no identifiable organs but just a bloody, slimy, amorphous mass that stretches in all directions uncontrollably. Because we never see the non-human actually invading a human or an animal body, the body's mutation appears as something natural to the body rather than imposed from the outside (as in the case of the pods). The non-human is no longer an imitation trying to pass itself as human; rather, the human (or animal) is presented as something intrinsically non-human, monstrous. While the pods are not considered human because they miss some fundamental ingredient, the Thing in the remake, which, ironically, is not 'thingly' at all but a tendency, intrinsic to bodies, toward reversing or exposing themselves, is precisely the obscene superfluity of life. The Thing is *too* alive, more alive than the human; it is an organism living inside another organism, an organic life that replicates itself within itself. No longer a metaphor like the pods or an archetypal enemy as the superhuman Thing of the original film, the Thing of the remake is chillingly real, irreducible to social or political readings. Here (as well as in the remake of *The Fly*) the phenomenon of imitation or duplication 'mutates' from the production of a copy as a process independent of and external to the body, to the body's production of its own double. In the *Invasion* films the process of duplication affects many people in the same way--duplication imposes its structure on different bodies--but in *The Thing* remake the imitation organism ("the chameleon" or 'the thing') appears to *borrow* its structure from each individual body it invades so that every body mutates differently. No longer something external and therefore unnatural, imitation now seems like a natural predisposition within every individual body that is merely brought out by the imitation organism. After one of the crew members has been attacked by the imitation organism and deformed beyond recognition, another character surmises: "Maybe every part of him was a hole. Every little piece was an individual animal with a built in desire to take its own life."

Since the non-human is no longer a particular entity but a *tendency* toward mutation, the test the humans devise to mark themselves off from the non-humans is no longer psychological but physical (a blood test). In the *Invasion* movies (as well as in *Blade Runner* later on) the test is psychological: in the original the protagonists try to pass as aliens by suppressing their emotions (unsuccessfully) while in the remake the shrink tests Elizabeth's emotions by purposefully attacking Jack Bellicec in front of her. In both films doubt is directed only outward i.e., it is necessary to establish if others are pods or humans but both the humans and the pods know that they are humans or pods: the pods remember their transformation and encourage those who are still human to take a pod home and be reborn. In the remake of *The Thing*, however, humans

don't know if they themselves are humans or 'things'. Even the blood test they devise cannot establish beyond doubt who is human and who is not: the corpses of the two crew members McReady kills, thinking that they are 'things', actually pass the test.

We can begin to see how by affecting another semantic element—the theme of the relationship between mind and body (the theme of the human, and of the transformation of the human into the non-human)—special effects generate a variation in the syntax of the SF genre. The originals of the films considered here play with the model one body/multiple minds, while remakes are based on the model one mind/multiple bodies. The danger of dehumanization, in the first model, comes from the possibility that the same body might be inhabited by different kinds of mind (a human mind as opposed to a pod's mind); in the second model, the danger stems from the possibility of imitating/multiplying or mutating the body, as in the case of the crew members in *The Thing* remake, Seth in *The Fly* remake, or the multiple, omnipresent agent Smith in *The Matrix*. Historically speaking, then, the non-human starts out as an entity represented as existing outside us; it is then gradually integrated into the human body and, at the same time, abstracted into a principle of transformation. Thus, it undergoes two mutually opposed, and simultaneous, developments: it is incarnated or embodied (from outside it moves inside the human body) but, at the same time, it loses its materiality (it becomes a tendency towards mutation rather than a particular mutated being). This development of the non-human can also be summarized as a shift from imitation to morphing. Imitation (or duplication) is a term signifying a process with a specific result and, therefore, a process that can be completed. Imitation presupposes the existence of a model or a prototype that the imitation tries to reproduce. Morphing, on the other hand, does not have an identifiable origin (model) because it is, at least hypothetically, an endless process: it does not end with the transformation of one form into another but reduces forms to temporary instances of a general, self-perpetuating process. In contrast to the pods in the *Invasion* films, which are simply copies (counterfeits) of human bodies, the mutated bodies in the remakes of *The Thing* and *The Fly* are continuously morphing. For example, Seth's fusion with the fly can be extended endlessly: the product of Seth's fusion with the fly, Brandlefly, goes on to fuse with one of the telepods, a process that could have gone forever if Ronnie hadn't killed him.

The liberation of the body from its subordinate role as a stand-in for the mind is already evident in the original *The Fly* though it will be fully achieved only in the remake. As Andre's transformation advances unrelentlessly, the wife tries to persuade her husband that he hasn't the right to kill himself: "You can still reason, Andre. You have no right to destroy yourself. You still have your intelligence—you are still a man with a soul." The implication is that Andre's humanity is preserved as long as he is able to reason. And yet, Andre's dehumanization is most

forcefully established as a mutation of the body, not of the mind. At the end of the film, the wife asks the detective whether it was wrong to kill Andre. "The fly head of a human? No," replies the detective. She continues: "It wasn't Andre. I am glad the thing's dead." They agree that Andre stopped being human when he lost the physical appearance of a human being. One particular part of his body demonstrates his progressive loss of humanity: his hands. Apart from the head, which he covers with a towel to spare his wife the shocking sight of a fly head, the main other mark distinguishing him from a human being are his deformed hands which he attempts to hide by wearing black gloves. His impending dehumanization has to do less with the clouding of his reason or with whether or not he really loves his wife, and more with his growing inability to either say it or write it as a result of the mutation of his physical body. Another symptom of his dehumanization is the mutation of his vision: when he finally reveals his 'face' to his wife, her reaction shot is given from his splintered point of view of an insect which multiplies the image of the horror-stricken Elaine. The importance of the body as a criterion of humanity is confirmed again at the end of the film when the inspector kills the fly (out of sympathy) after finding it caught in a spider web. Despite the clearly human face on the fly's body, the inspector insists that he has killed "a fly with a human head" just as Elaine has earlier justified her crime as killing "a human with a fly head." The human is defined in terms of its physical completeness: the "things" that Elaine and the detective kill are not *completely* human and thus not *essentially* human. The human is assumed to be a collection of components of the same type so that, if one or more of these are missing, the being no longer qualifies as human. According to this definition, the human is composed of external relations (such as the literally external relation between a body and a head) rather than constituting a kind of 'essence'. Once the continuity of such an externally constituted aggregate has been disturbed, the aggregate is not considered human. This literal understanding of the human holds it firmly on the surface, conceiving it as a product of a certain *arrangement* of *proper* elements: even if Andre had kept his human head but still had one mutated hand, he would still have been considered non-human.

In the remake, too, the difference between the human Seth Brandle and the product of his teleportation, Brandlefly, is written, exclusively, on their bodies. Before the fateful failure of his own teleportation, Seth declares: "I don't know enough about the flesh." As he goes through the various stages of his monstrous transformation, Seth literally sheds his humanity: in the final scene, the last pieces of his human skin and bones fall away and from underneath emerges Brandlefly. It is important that even after this, the human is not entirely dead: what emerges after the human has been stripped away is not simply and purely something completely alien (a fly), but the product of the fusion of Seth and the fly. Because the difference between human and non-

human is entirely situated on the surface, even at the last and extreme point of this perverse version of the phenomenological reduction, the final remainder is not purely monstrous—if that were the case, the human would have been neatly separated from the non-human—but a creature that is human and monstrous at the same time. What fails to be teleported/duplicated is precisely the flesh, and it is the flesh that now signifies the human (in opposition to the more common idea in SF films involving cyborgs and robots that what is 'lost in translation' is the soul or the mind).

In the original *The Fly* Andre passionately explains to his wife the principle of teleportation, in which, for an infinitesimal part of a second, a material object (including the human body) is disintegrated, for a split second it does not exist except in the form of atoms traveling through space at the speed of light, until it is reintegrated in the other telepod: "Take TV. A string of electrons, sound and picture impulses are transmitted through wires to the air. The TV camera is the disintegrator. Your TV set unscrambles or integrates the electrons back into pictures and sound." The film reflects an important change in the understanding of matter--the idea of the insubstantiality or immateriality of matter—which has been responsible for a reconceptualization of the notion of imitation. The body is no longer a solid object that can be imitated (as in the *Invasion* films), nor is it a permeable object that can be invaded[34] and turned inside out (as in *The Thing*). It is now an unstable 'thing' that can be disintegrated and reintegrated (perhaps not that different from the unstable neutrino systems—materialized memories--in *Solaris*). Imitation no longer requires the literal doubling of the body but rather the literal destruction of the body into its most basic constituent elements (billions of atoms which are only a series of electrical impulses) and its subsequent reintegration. Imitation in the first sense still functions as the creation of something "in the image of" but imitation in the second sense relies precisely on the negation of the image or the model. Despite the initial obstacle (when he teleports an ashtray the sign on its back gets reversed) what Seth's experiment with himself produces is something far better than a simple copy: imitation is 'upgraded' to self-creation, the model removed (disintegrated) so that what emerges in the process of teleportation is not a copy of a prior model but the inherent monstrosity—translatability—of the original.

As long as it remains external, the non-human does not pose a serious challenge to the human: it can be downplayed as either metaphorical (as in the *Invasion* films, which translate it into social terms) or, at the other extreme, as too literal to be really bothersome (as in the original *The Fly* where the human is externally appended to the non-human). The remakes of *The Thing* and *The Fly* no longer conceive the passage of the human into the non-human as the mere swapping of external parts (for example, the attaching of a human head to a fly's body or of a fly's head to a human body). The reason for Seth's initial failure, as he puts it, is that he doesn't

know flesh well enough, and, furthermore, that the computer doesn't know flesh either. Seth sets out to teach his computer not to rethink flesh but to reproduce it, the implication being that in order to duplicate the human faithfully, the body should not be translated into something else--into mental representations or formulas--but must be duplicated on its own terms. The human is identified with the body; by extension, dehumanization involves deviations from the natural laws of the body (such as the superhuman endurance Seth demonstrates in his astonishing acrobatic numbers and his insatiable sexual appetite). The body is no longer copied, invaded, inhabited by something foreign to it, or turned inside out: now it is put apart and then put back together. It is not a matter of imitation any more but of translation, yet a translation in the same language, a translation of the flesh back into itself: as Seth himself puts it, his self-teleportation has purified his flesh from his mind.

The evolution of special effects has liberated the body from the metaphorical function it serves in 1950s SF films: it is no longer necessary to use the body only as a pretext to suggest a 'deeper' difference between the human and the non-human. The non-human has gone through several stages: from a physical copy of the human (*The Thing, It Came from Outer Space, Invasion of the Body Snatchers*), through a principle of mutation within the human (the remakes of *The Thing* and *It Came from Outer Space*), to something other than the human but constitutive of it (thus, in *The Fly* remake Seth declares that his real self is Brandlefly, not Seth: "I am an insect who dreamt he was a man and loved it. But now the dream is over and the insect is awake"). The flip side of this process, the evolution of the human, can be illuminated by juxtaposing *Invasion of the Body Snatchers* with *The Matrix*. Trying to find a rational explanation for the pods, one character in *Invasion of the Body Snatchers* explains to another: "All that body in your cellar needed [to become human] was a mind." In *The Matrix*, as well as in the remakes of *The Thing*, *It Came from Outer Space*, and *The Fly*, all the mind needs--to be considered human--is a body.

While in earlier SF films to be human is to be in possession of one's mind, later films (including remakes of earlier SF films), under the influence of new technological developments (the perfection of special effects, in particular), define the human through the body. *The Matrix* illustrates this well: it is precisely because in the Matrix the human is identified with the presence (the reality) of the body that the whole film is based on the splitting of the body into a real and a virtual one. The duplication of bodies in *The Matrix* is no longer a metaphor: the duplication of Neo's body across the real/virtual border marks him off as human, in opposition to the multiplication of agent Smith's body only on one side of that border (the side of the virtual). Neo has two bodies but Smith has an infinite number of bodies: the opposition has shifted from one

(the unique body) versus multiple, to two (real and virtual) versus multiple (only virtual). The human body, in particular the suffering human body, is what distinguishes Neo and his fellow rebels from sentient computer programs (the latest embodiment of the alien in SF film). Whenever human beings are engaged in a battle in the virtual world, the camera cuts back and forth between their invulnerable virtual bodies and their bleeding human (real) bodies. It is namely the possibility—the capacity—to suffer, even to die, that constitutes the human. The question is whether the human ought to be understood in terms of vulnerability (in that case the human would be identified with the variable element, with that which can be snatched away) or in terms of the constant, that which cannot be snatched away, whether the human is what remains after everything inessential has been stripped away from it or it is precisely that which is constantly endangered. I suggest that the latter is the case: the human is the variable, not the remainder. The human is not just occasionally endangered but it is in its very 'nature' (to use a self-defeating term for lack of a better one) to be endangered: to be human is to be always in danger of not being human. In the Invasion films, the problem of the human is defined as the danger of the mind not being real and autonomous but manufactured and inserted into the body. In *The Matrix*, the problem of the human is reformulated as the danger of the body not being real but manufactured and projected into an illusory, virtual world. Whereas in the Invasion films the real body and its copy look exactly alike, *The Matrix* makes a point of stressing the visual difference between Neo's 'clean' virtual body on one hand, and his suffering real body, on the other hand. The purpose of the special effects in the film is precisely to underscore this essential difference between real and virtual bodies. The identification of the human with the suffering body attains a level of literalness in Trinity's death. It is namely her suffering body, her mortality, that constitutes the possibility of love in the first place. Agent Smith cannot love because he cannot die.

Notes

[1] In her essay "Special Effects, Morphing Magic, and the 1990s Cinema of Attractions" Angela Ndalianis situates the origins of the SF genre in Méliès's trick films (she cites, in particular, *A Trip to the Moon*) (255). Other critics, for example Geoff King and Tanya Krzywinska, argue that the origins of the SF genre should be sought in the 1950s when the SF film branched away from the horror film. On the crossing points between the two genres (especially the theme of depersonalization, body-horror and the monster motif) see *Science Fiction Cinema: From Outerspace to Cyberspace* 43-54. Steve Neale suggests that one of the possible reasons for the overlapping between the fantastic genres genres is their shared non-verisimilitudinous nature. What, however, distinguishes "these genres from one another is the degree and the type of motivation, of justification, they offer for the extraordinary events and agents they portray. Science fiction, of course, justifies its improbabilities on 'scientific' (or quasi-scientific) grounds" (p. 168, Note 7 to " 'You've Got To Be Fuckin Kidding!' Knowledge, Belief and Judgment in Science Fiction"

160-168 in *Alien Zone*). However, Neale goes on to argue that such justification is, in the final analysis, so conventional that it serves "merely [as] as alibi for the elaboration of aesthetic effects"(168). On the differences between the SF and the horror film, see also Patrick Lucanio, *Them or Us: Archetypal Interpretations of Fifties Alien Invasion Films* (Bloomington, IN: Indiana UP, 1987), especially pp. 1-20. See Rick Altman, *Film/Genre*, 78-79 for a description of the regenrification of the horror film into SF film in the 1950s when horror films fell out of fashion, replaced by the new fad for SF films. On the relationship between the genres of SF and fantasy, see J.P.Telotte, 10-16. Telotte draws a series of analogies between Todorov's three component narrative fields--the marvelous, the fantastic, and the uncanny—on one hand, and the three most dominant themes in the SF genre. Specifically, he places *The Thing* in Todorov's category of the marvelous and *Invasion of the Body Snatchers* in the category of the uncanny (technological remodelings of the self).

[2] "[S]cience fiction must accommodate the shifting and often counterintuitive visions of reality that science itself reflects; horror must accommodate the constantly shifting sources of the anxiety that it seeks to exploit; fantasy must adapt to the dreams of a world no longer governed by the conventionalized desires of pastoral idealism" (Wolfe 29). Wolfe offers two different models of SF genre evolution: the colonization by SF of other genres, notably horror and fantasy (genre explosion), and the collapse of the SF genre i.e., its increasing self-referentiality (genre implosion).

[3] Altman borrows an example from Jean Mitry's *Dictionnaire du cinéma*: "The Western, Mitry proposes, is a 'film whose action, situated in the American West, is consistent with the atmosphere, the values, and the conditions of existence in the Far West between 1840 and 1900" (*Film/Genre* 220). Dismissing Mitry's definition as tautological, Altman offers two alternative definitions. According to Marc Vernet, the genre of the Western is best defined by its vocabulary, which includes "general atmosphere ('emphasis on basic elements, such as earth, dust, water, and leather'), stock characters ('the tough/soft cowboy, the lonely sheriff, the faithful or treacherous Indian, and the strong but tender woman'), as well as technical elements ('use of fast tracking and crane shots')"(Vernet qtd. in Altman 220). Jim Kitses, on the other hand, "emphasizes not the vocabulary of the Western but the relationships linking lexical elements. For Kitses, the Western grows out of a dialectic between the West as garden and desert (between culture and nature, community and individual, future and past). The Western's vocabulary is thus generated by this syntactic relationship, and not vice versa" (220).

[4] In *Science Fiction Cinema: From Outerspace to Cyberspace*, King and Krzywinska also consider special effects a semantic feature of the SF genre (9).

[5] However, Mark J. P. Wolf leaves room for such a possibility, specifically in relation to digital morphing: "As more morphing is done, different styles of morphing may well develop, increasing the expressivity of the morph, which has yet to be fully explored"(100). In other words, he envisions the possibility of morphing, which is now a convention, giving rise to different meanings associated with particular *styles* of morphing and thus, potentially, establishing different genres.

[6] However, he adds that this association cannot be applied generally to *all* instances of this particular film technique.

[7] Barthes argues that cinematographic expression is best described as a language system rather than as a language since it works by means of "large-scale units of meanings [not reducible to words but maybe equivalent to sentences] corresponding to global, diffuse, latent signifieds which are not in the same category as the isolated and discontinuous signifieds of articulated language" ("Roland Barthes" 278).

[8] In her essay "After Arnold: Narratives of the Posthuman Cinema" (159-179) Roger Warren Beebe provides a specific example of special effects generating a new genre syntax. She argues that special effects are gradually rendering the action hero film obsolete, which results in "a dispersal of the narrative and a multiplication of narrative centers"(Beebe 171). *Jurassic Park* illustrates this development insofar as it replaces the action hero with "lesser human 'stars'"(171) and relies for box office success on showcasing the latest computergraphic technologies. The "passage from a character-centered model for the hi-tech blockbuster to an effect-centered model" (the passage from a human to a posthuman cinema) results in a new genre syntax, what the author calls "teamwork narratives" that "fill the void created by the death of the action hero"(172). Beebe offers a political reading of this development as a new form of utopia: "[T]hese more diffuse posthuman narrative forms may allow for the emergence of a notion of the *collective*…that might supercede the role of the isolated individual human subject (the legacy of previous star systems and narrative structures from film noir to the action hero)"(173).

[9] However, Geoff King and Tanya Krzywinska argue that the supposed erosion of the distinction between the human and the non-human, like that between reality and fantasy, is only a myth of postmodernism; in reality, most SF films challenge that distinction only to re-establish it. See pp. 54-57.

[10] See J.P. Telotte, "The Doubles of Fantasy and the Space of Desire" in *Alien Zone,* 152-159. Telotte finds in "the doubling theme an image of [film's] own mimetic problem and of the visual desire which powers its narratives"(154).

[11] The question is whether special effects only reproduce this magical nature of matter or actually make us aware of it (create it) in the first place since they have the power of making the invisible visible.

[12] On the relationship between magic and special effects, see also "Special Effects, Morphing Magic, and the 1990s Cinema of Attractions" by Angela Ndalianis (251-271) and "Tracing the Tesseract: A Conceptual Prehistory of the Morph" by Kevin Fischer (103-130), both in *Meta-Morphing: Visual Transformation and the Culture of Quick-Change,* Ed. Vivian Sobchack (Minneapolis: U of Minnesota Press, 2000). The tesseract signifies a "space-time modulation" (Fischer 105). In morphing or "tessering" "things properly reveal themselves as processes, durations"(105). Like Solomon, Fischer illustrates the process whereby an object of representation becomes a feature of the film medium as such–i.e., magic as an object of cinema becomes *Industrial Magic*--by tracing the "transition of the tesseract from an object of representation to the operating principle of cinema as emerging representational technology"(116).

[13] Wolf distinguishes between an "amorphous morph" and a "feature morph": an example of the former would be the terminator T-1000 (since in the act of morphing he reverts to an amorphous liquid before slipping into the next image) whereas the latter "attempt[s] to maintain some continuity between [its] end point images"(99). In fact, we can't even call T-1000 a character: his nature is that of a shape-shifter and it overlaps entirely with the technique of representing him (morphing) and it is only the narrative in which he is placed that gives him any characteristics (such as "evil")—outside of that he is just the display of a technological development.

[14] Sobchack indicates that recent research of early cinema has revealed "actual out-of-camera editing" (rather than simply "stop motion substitution") in many of Méliès's trick films. See Note 4, "At the Still Point" 155).

[15] The shift whereby the object of representation (the virtual) becomes a technique of representation (the virtual camera) in *The Matrix*, is complemented by another, opposite shift: the virtual (the double) is not limited to the body but expanded to include the entire world i.e., the whole world is doubled rather than particular bodies within it. Thus, just as the virtual becomes a technique of representation, it is dematerialized and no longer represented as a process of becoming (as in the growth of the pods, Seth's transformation in *The Fly*, the Thing's growth, or T-1000's morphing) but as an already existing world (the matrix). To show the intrinsic instability of matter it is no longer necessary to show material beings morphing. We don't see matter in the process of ontological hesitation or ambivalence (we don't see matter as duration); instead, *The Matrix* presents its two worlds as already given: there is no sense of sliding or oscillation between the two. The ambivalence of matter, of the body, has been generalized and made into a world of its own: it's externalized, designated as other (the virtual) but it's already a *place*, just as the real is a place.

[16] See Fredric Jameson, "Progress Versus Utopia; Or, Can We Imagine the Future", *Science Fiction Studies*, vol. 9, no. 2, 1982. For an alternative view, see Scott Bukatman's "The Ultimate Trip: Special Effects and Kaleidoscopic Perception." *Iris* 25 (Spring 1998): 75-97. Bukatman argues that digital special effects, in particular, present the possibility of utopia.

[17] Sobchack's historical explanation lends additional support to this argument as she associates "a more utopian strain in science fiction…with an earlier period"(King and Krzywinska 17) thus establishing a correlation between utopia and the lack of special effects.

[18] I am intentionally replacing the word "causation" with the less charged term "motivation."

[19] When we consider the evolution of the notion of the human from an object of representation to a technique of representation on one hand, against the evolution of techniques of representation (special effects) on the other hand, we witness the following progression: 1) the fantastic is produced by editing together images of real profilmic objects (Méliès's stop motion photography); 2) the fantastic is produced by means of mechanical effects and puppetry i.e., the fantastic object itself is designed rather than the fantastic being only the effect of editing together images of real objects (for example, *Invasion of the Body Snatchers*, *The Thing, The Fly*); 3) the fantastic is produced through the optical manipulation of images (for example, *Terminator 2, The Matrix*).

[20] Not all of these films are considered strictly SF films, confirming again the difficulty of defining the genre. For example, J. P. Telotte classifies *Invasion of the Body Snatchers* as a horror SF film on account of its "emphasis on physical confrontation" (*Science Fiction Film* 5).

[21] Generally speaking, the remakes of these films tend to be more dystopic than the originals. Both *Invasion of the Body Snatchers* films end with the escalation of paranoia, the inability to tell humans from non-humans. However, in the original we still have the protagonist as a point of reference: he is still a human being even though we can't tell whether the people he warns against the pods are still human. In the remake, one of the protagonists turns into a pod (Elizabeth), while the other either turns into a pod or pretends to be a pod (Matthew). The original *The Thing* ends with the successful execution of the Thing whereas the remake offers only a tentative ending: "What do we do? We just wait here for a while—see what happens." In contrast to the enthusiastic doctor Kerrington, doctor Blair of the remake locks himself up voluntarily, horrified by the potential consequences of the Thing's contact with humans, which, just as in the remake of *Invasion of the Body Snatchers*, are far more catastrophic than in the original: if the imitation cell reaches civilized areas, the entire population of the planet will be exterminated. *Invaders from Mars* is built around the idea of a nightmare that then becomes true but the remake drives the point home in a more obvious way: having seen, for the second time, the spaceship crash on the hill behind his house, the boy runs to his parents' bedroom, opens the door and screams.

[22] According to Sobchack, the overt questions alien invasion SF narratives pose, such as "Where did It (or They) come from?" are actually disguised versions of repressed questions about ourselves: "Where did I come from?" and "Who and what am I?" See Vivian Sobchack, "The Virginity of Astronauts: Sex and the Science Fiction Film" in *Alien Zone*, pp. 103-115.

[23] However, there is another strand of SF films—such as those based on Philip K. Dick's stories and novels--that equate the human with memory and ask what happens when memories are erased or manufactured and implanted.

[24] "The ultimate horror in science fiction is neither death nor destruction but dehumanization" (Clarens 134).

[25] Just as the remake of *Invasion of the Body Snatchers* imitates/summarizes the original in its opening sequence (which shows us the seed pods traveling through space and eventually reaching the earth) the remake of *The Thing* opens with an imitation/repetition: the film sets up the events we are about to see as something that has already happened (the Americans working at the National Science Institute Station discover what has happened to their colleagues at the Norwegian camp). We know the characters are doomed from the very beginning: their fate only imitates/repeats the Norwegians' failure.

[26] The alien invasion is also a convenient metaphor for accumulating environmental anxiety. One of the characters in the film (Nancy) conflates the alien invasion with deepening environmental problems: we eat and breathe junk, she says, we wouldn't even notice if something infiltrated our system.

[27] The morph—in this case the alien spaceship which morphs into human bodies and then back into itself—is distinguished from the human in that it is temporally reversible: "Paradoxically, then, morphing and the morph deflate in humanly meaningful temporal value proportionate to their inflated spatial display of material transformation as both are seamlessly reversible and effortless"(Sobchack, "At the Still Point" 137). The morph, unlike a real human being, "operates to superficially simulate change as, on a deeper level, it assimilates not merely 'difference' but also 'otherness'" (138).

[28] The inhuman life form or force that inhabits the body begins to develop human emotions i.e., just by virtue of adopting a human shape the inhuman becomes human. Thus the copy of Stevie's mother falls in love with Jack and attacks one of her own (another alien) in order to save Jack.

[29] The other two aliens ("mankind's slaves") are equally anthropomorphized: they are tall, human-shaped creatures (reminiscent of the Thing in the original *The Thing*) dressed in ridiculous green leotards (the only thing that marks them off from humans are their exceptionally large hands). In the remake of the film, the better special effects loosen the alien's resemblance to the human form and slide the genre towards fantasy. The film resembles a typical schoolboy's nightmare rather than a scary account of an encounter with aliens. The most alien and scary creature, accordingly, is the schoolteacher who eats frogs. Mankind's supreme intelligence is replaced by the supreme Martian intelligence, a slimy creature whose brain is obscenely exposed: an even more metaphorical (overexposed) representation of superhuman intelligence.

[30] The remake makes a farce out of the original: the schoolboy promises his ugly teacher "I promise I will stay in school for the rest of my life if you just shut up." He doesn't seem distressed or horrified by the monsters around him. He tries to reason with the Martian intelligence "Don't you understand? You can't

control people. It's wrong." The aliens, two huge prehistoric beasts, are a throwback to pre-history--a recurring motif in fantasy film and literature. The aliens resemble puppets straight out of Jim Henson's shop. The interior of the spaceship, lit up by strobe lights, resembles a discotheque. The supreme Martian intelligence is a puny Jabba the Hutt-looking creature with tiny eyes. The alien beasts are operated like coke machines (David puts a penny in one of them in order to use it as a weapon).

[31] Carlos Clarens notes that "*The Thing* works best when the creature is kept off-screen" (123). Unlike the Thing in the story that inspired the film, which is so monstrous that it defies visualization, the Thing in the film "bears a striking resemblance to the Frankenstein Monster and in itself becomes the film's only blemish and banality"(123).

[32] The special effects in the remake of *The Thing* pull the SF film closer to the horror genre. In the remake of *Invaders from Mars* they pull it towards fantasy.

[33] The confrontation between the military and science, both of which claim first rights over the story of the alien is cut from the remake, which , instead, follows the dissolution of social bonds between the characters as they become increasingly unable to trust one another and eventually resort to a questionable test to determine who is human and who is not.

[34] Clarens reminds us that the idea of the human body as a vessel of an alien form is the latest manifestation of an old tradition of possession of humans by the gods or by evil spirits, which "was originally evolved as an explanation for recurrent examples of abnormal behavior, insanity, or perversion"(136).

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