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## The Dual Phase Oscillation Hypothesis and the Neuropsychology of Docu-Fiction Film

by

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### Abstract:

The *dual phase oscillation* (DPO) hypothesis recently proposed by Mukhopadhyay (2014), is based on the neural correlate of aesthetic paradox; the *paradox* referring to a state of simultaneous heightened emotional experience and a state of detached composure during art appreciation. The hypothesis proposed that aesthetic delight is the dynamic, oscillatory balance between *Suspension of Disbelief* (SOD) and *Introspective Detached Contemplation* (IDC) and is orchestrated by functional coherence of the Default Mode Network (DMN) of the brain. This article is an extrapolation of the concepts of the DPO hypothesis which here is theoretically integrated with the experience of the art form of film. In film, an important functional aspect of SOD, in addition to other central elements, is the suppression of the literal identity of the performer in the narrative performance and an overall suspension of the awareness that the art form is staged. *Docu-fiction* film, a developing genre in contemporary filmmaking, attempts to capture documentary reality while simultaneously introducing fictional elements in the narrative. The article proposes that in *docu-fiction* film, the SOD-IDC dynamics of both a *fiction* film and a

*documentary* film operates oscillating in a bigger scenario and the preconceived mindset of the audience cannot offer a stable expectancy regarding the genre of the film which introduces the element of ambiguity. Thus *docu-fiction* film-making exploits the unique attributes of the art form of film (by portraying verisimilitude as well as imaginative abstraction and fiction) at its fullest following the DPO hypothesis.

**Keywords:** *DPO hypothesis; aesthetic paradox; Suspension of Disbelief (SOD); Introspective Detached Contemplation (IDC); fiction film; documentary film; docu-fiction film*

## 1. Introduction:

*'All great fiction films tend towards documentary, just as all great documentaries tends towards fiction'*

**Jean Luc Godard, 1959 [1972]**

*'...the study of ambiguity... gives us insights into the neurological machinery that artists have tapped to create the ambiguity that is commonly a hallmark of great works of art'*

**Semir Zeki, 2004**

*'Film is 24 lies per second at the service of truth'*

**Michael Haneke, 2005**

Aesthetic delight during experiencing an art form is at once a heightened emotional experience and a state of detached composure during art appreciation representing a state of simultaneous attachment and detachment which seems paradoxical. This aesthetic appreciation can occur towards a percept when an individual experiences the percept with the approach of an art-experencer or artist. The *dual phase oscillation* (DPO) hypothesis recently proposed (Mukhopadhyay, 2014) is based on the neural correlate of this aesthetic paradox. The hypothesis proposes that aesthetic delight is the dynamic, oscillatory balance between *Suspension of Disbelief* (SOD) and *Introspective Detached Contemplation* (IDC) and is orchestrated by functional coherence of the Default Mode Network (DMN) of the brain (Mukhopadhyay, 2014). The DMN (Raichle et al., 2001) are brain regions which

together form a network which generally shows decreased activity from baseline state during task-induced attention demanding activity. The lowering down of its activity is thought to enable the re-allotment of attentional resources from internal processes to goal-directed behaviour (Gilbert et al., 2007; Mason et al., 2007). Parts of DMN can however also show increased activity from baseline state during special types of goal-directed activity which involve self-referential, introspective activities (Gusnard et al., 2001; Buckner et al., 2008; Vessel et al., 2013). The hypothesis is primarily supported by two previous neuroscientific findings (Cela-Conde et al., 2013 & Vessel et al., 2013) which uses two separate neuro-imaging techniques (Magnetoencephalography (MEG) and functional Magnetic Resonance Imagery (fMRI) respectively) to assess the relevance of DMN of brain in the generation of aesthetic delight. The paper (Mukhopadhyay, 2014) highlighted how their works could be integrated with the proposed hypothesis to attain a complete picture.

The DPO hypothesis is based upon the fact that there is a temporal segregation of phases in art appreciation. It states that the initial stimulus-guided, goal directed activity of artistic appreciation is non-self referential, non-introspective and the DMN [especially the Medial Pre Frontal Cortex (MPFC)] can show an overall decrease in its activity from the baseline state during this phase leading to SOD. However, subsequent resolution of stimulus complexity by information processing activates the dorsal-MPFC (dMPFC) turning the phenomenon of artistic appreciation into an attention driven, goal-directed yet self-referential, introspective process (the latter phase leads to IDC). The temporal transition between these two phases exists although the transition may be unperceived such that the feeling of aesthetic delight may appear as a uniform non-transitional activity (hence the apparent paradox is generated). With increasing information resolution, the activation of dMPFC and ventral-MPFC (vMPFC) can lead to full integration of emotional and cognitive processes. Most importantly, the hypothesis emphasises that it is the oscillatory balance between these two phases that actually generates aesthetic delight (Mukhopadhyay, 2014). Artistic appreciation is not a linear process with one-off beginning and end of phases. The initial and later phases of SOD and IDC respectively can interact and oscillate (that is why it can be called *dual phase oscillation*) several times even in the course of experiencing a single art form and this is guided by the resolution of stimulus complexity which may occur in multiple

spurts. The balance between the phases of SOD and IDC, as mentioned in the hypothesis, is maintained through spurts of information resolution (task-induced, attention driven, non-introspective), confrontation with newer forms and the constant oscillation between the two phases (regulated by the decreased/increased activities of dMPFC and vMPFC) by which the observer simultaneously suspends and becomes aware of the surface reality (the range of denotative and literal reality) and nature of representation of an art form.

The DPO hypothesis does not restrict itself to static visual art only but can extend to other disciplines of art including music, dance, theatre and film. The phenomenon of SOD operates in any form of art appreciation though the multiple facets of SOD may be different in different art forms. Form complexity is not only restricted to visual complexity but extends also to other domains like spectro-temporal complexity of sound (Samson et al., 2011) and movement complexity (Aubry et al., 2007) through which SOD can be generated by the attenuation of DMN activity (Mukhopadhyay, 2014). It is true that the cross-modal activation patterns may be different in films or other non-static art forms in relation to static visual art and each have to be understood on their own before comparisons can be made between them. The recent works of Cella Conde et al., 2013 and Vessel et al., 2013 (whose findings support part of the hypothesis) did the study with static visual art only. However, the hypothesis can be tested for other art forms too especially since a significant amount of work is now done on non-static narrative art forms (Hasson et al., 2008; Bartels and Zeki, 2004; Carvalho, 2011; Kauppi, 2010; Wang et al., 2012). Mukhopadhyay (2014) wished to suggest that there is the possibility of extending the DPO hypothesis to other art forms.

A review of art history shows us that there were styles which played with the concept of manipulating the balance between the phases of SOD and IDC. In painting, starting especially from the Post-impressionist period, we often see a deliberate attempt to make the viewers aware that they are experiencing work of art while also maintaining aspects of naturalistic illusionism. Paul Gauguin's use of colour, Paul Cezanne's distortion of perspective or Georges Seurat's experiments with *Pointillism* all strove to achieve this perfect balance (Mukhopadhyay, 2014).

Theatre, film and other performing and performance arts represent the perfect exposure to non-static narrative art. [FN: *Performing arts are forms of creative activity that are performed in front of an audience and performance arts are art forms that combine visual art with dramatic performance (Oxford Dictionaries, 2014). Theatre and film can be included in both the categories.*] They are more pronouncedly bound by the time frame of the narrative than static visual art and this provides a unique interplay of the oscillatory dynamics between the two phases of SOD and IDC. The central SOD element in these art forms is suspending the awareness of the fact that the character in the narrative is *actually* played by an actor. However, the IDC phase balances the SOD phase by reminding the audience of *this* very fact.

Superior to any other medium of art, the art form of film can embrace two extremely divergent aspects of creativity: it can capture the naturalistic details of photographic realism in motion (highlighting its ability for portraying verisimilitude) and at the same time it can portray imaginative abstraction and fiction. Coupled with this are film's great potential in telling stories and its power in controlling the emotional range of the audience. Although the art form of film can be classified into numerous genres, it can be primarily categorised into two broad divisions: *fictional* film and *documentary* film. *Fictional* films represent a story, event or narrative that is either independent of any real-life accounts or even if based on real-life accounts takes the liberty of incorporating imaginary elements. *Documentary* films on the other hand, either represent real-life incidents through real-time shooting or authentically recreate the real-life accounts remaining completely faithful to the original. Although in both these types of films the SOD-IDC balance operates (just like any other forms of art appreciation), the nature of the oscillatory dynamics is different in *fictional* film with respect to *documentary* film.

*Docu-fiction* film is the blend between documentary and fictional narrative cinema and it is a film genre which attempts to capture documentary reality while simultaneously introducing fictional elements in the narrative (Huizhen, 2012; Rhodes & Springer, 2006). This article investigates how the art of *docu-fiction* film-making influences in a unique way, the oscillatory dynamics between SOD and IDC as mentioned in the DPO hypothesis. The article interprets how the manipulation of

this balance between these two phases introduces the element of ambiguity in *docu-fiction* film which exploits the unique attributes of the art form of film at its fullest.

## 2. The dynamics of SOD and IDC:

In static visual art like paintings, static installation art etc, SOD is generated through the suppression of surface reality (referring to the range of denotative and literal reality of the art form) during the phase of information processing of visual form complexity (Stage I, Mukhopadhyay, 2014). However, in the non-static art forms additional sensory-cognitive processing needs to be done which primarily involves resolving the complexity of movement and/or resolving the spectro-temporal complexity of sound. It needs to be understood here what actually is meant by the terms *suppression of surface reality*. When we see a dog in a street there is cognitive and sensory information processing which makes us realise that it is a dog in a street. When we see a *painting* of a dog in a street there is cognitive and sensory information processing which makes us realise that it is a dog in a street. So *what is the difference?* The difference is that in the latter case, during the initial information processing, we are unaware that it is a '*painting*' of a form we are deciphering. This is because the SOD phase temporarily makes us unaware of the surface (denotative and literal) properties of the *form* of the painting. For example, we initially temporarily suspend the belief that this is a two dimensional object and that the form is created by, say, paint on canvas. We are engrossed in the information processing of the '*dog in a street*'-*form* becoming unaware of the surface reality. However, once we decipher the form of the '*dog in a street*' in the painting, we not only then realise that it is a dog in a street but the increasing introspection makes us aware that it is a *painting* of a '*dog in a street*' made by paint on a canvas by a person. Thus in case of art appreciation we are simultaneously unaware *and* aware of the surface reality. This is due to the oscillatory dynamics of the phases of SOD and IDC as mentioned in the DPO hypothesis orchestrated by the DMN of brain (Mukhopadhyay, 2014).

Though this central aspect of SOD is very much applicable in case of art appreciation of *any* form, there can be further layers of denotative reality that are suppressed and these features of SOD can be unique in different art forms. In performance and performing arts like theatre and film an important functional aspect

of SOD, in addition to its central characteristic mentioned above, is the suppression of the literal identity of the performer in the narrative performance. For example, when we see Laurence Olivier playing Hamlet (in the film *Hamlet*, 1948), we temporarily suspend the literal identity of Laurence Olivier and regard him as Shakespeare's Hamlet (Figure 1). However, the spirit of the aesthetic experience can only be relished once the IDC phase reminds us that this *is* Laurence Olivier playing Hamlet. [FN: Using Magnetoencephalography (MEG) Cela Conde et al., (2013) categorised two different phases of aesthetic appreciation: a fast aesthetic appreciative perception formed within 250-750 ms time window and a delayed aesthetic appreciation performed within 1000-1500 ms time window. Hence the temporal transition between these two phases can occur so fast that it may be unperceived (hence the apparent paradox is generated)].



**Figure 1: left: A Laurence Olivier publicity photo; right: Laurence Olivier playing Hamlet (in the film *Hamlet*, 1948)**

[Source: left: [http://commons.wikimedia.org/wiki/File:Laurence\\_Olivier\\_-\\_1961\\_-\\_Boston.jpg](http://commons.wikimedia.org/wiki/File:Laurence_Olivier_-_1961_-_Boston.jpg); right: [http://www.ebay.com/itm/SIR-LAURENCE-OLIVIER-8x10-ACTOR-PHOTO-HAMLET-photograph-/310171020149?pt=LH\\_DefaultDomain\\_0&hash=item4837a22b75](http://www.ebay.com/itm/SIR-LAURENCE-OLIVIER-8x10-ACTOR-PHOTO-HAMLET-photograph-/310171020149?pt=LH_DefaultDomain_0&hash=item4837a22b75) (original copyright: The Criterion Collection)]

An extension of this attribute of SOD operating in theatre and film is the overall suspension of the awareness that the art form is staged or filmed. Hence, when we see the film *Titanic* (1997), not only the awareness of the fact that we are seeing twenty four frames of celluloid per second is initially suspended, but also the SOD phase makes us unaware of the fact that this is a 1997 fictional recreation and staging of the disaster of 15 April 1912 (Figure 2). Here also, only after the IDC phase, we can applause the 'realistic' portrait of the disaster through film. It is indeed



horrifying just to imagine ourselves in the cursed ship on that day of the tragedy. Obviously the psychological response would have been much different there.

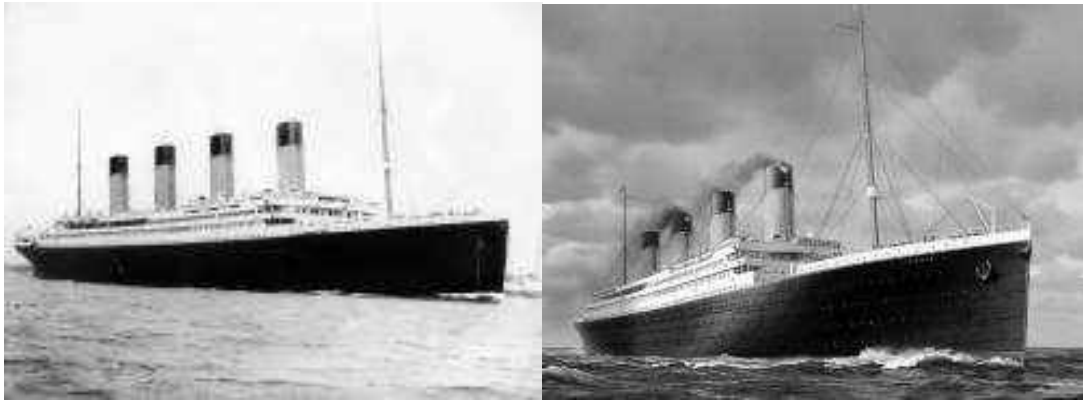


Figure 2: RMS Titanic; left: photograph taken while departing Southampton on 10 April 1912; right: 1997 film recreation

[Source: left: [http://commons.wikimedia.org/wiki/File:RMS\\_Titanic\\_3.jpg](http://commons.wikimedia.org/wiki/File:RMS_Titanic_3.jpg); right: <https://myfavouriteworld.wordpress.com/2011/04/01/20-titanic-movie-hd-wallpapers-revealed/#jp-carousel-419> (original copyright: Paramount Pictures and Twentieth Century Fox.)]

A shocking example of the juxtaposition of aesthetic experience and concrete reality occurred among the film audience on July 20 2012 in Aurora, Colorado, USA, when a gunman, dressed in black and wearing a mask (Figure 3), shot into the audience killing 12 people during a midnight screening of the film *The Dark Knight Rises* (2012). A large section of the audience initially thought that the shooter was part of a publicity stunt for the film's premiere until they got hit (Pilkington & Williams, 2012).



Figure 3: left: the gas mask worn by the character Bane in the film *The Dark Knight Rises* (2012); right: the gas mask worn by the shooter on July 20 2012 during a midnight screening of the film *The Dark Knight Rises*

[Source: left: [http://www.ebay.com/itm/Batman-The-Dark-Night-Rises-Bane-Fist-3-Button-/380560278110?pt=LH\\_DefaultDomain\\_0&hash=item589b29025e](http://www.ebay.com/itm/Batman-The-Dark-Night-Rises-Bane-Fist-3-Button-/380560278110?pt=LH_DefaultDomain_0&hash=item589b29025e) (original copyright: Warner Bros. Pictures) right: Karl Gehring/The Denver Post/Associated Press; [http://www.boston.com/bigpicture/2012/07/aurora\\_colorado\\_theater\\_shooti.html#photo4](http://www.boston.com/bigpicture/2012/07/aurora_colorado_theater_shooti.html#photo4) .....Karl Gehring/The Denver Post/Associated Press)]

The DPO hypothesis explains how the oscillatory dynamics of DMN makes art appreciation a unique psychological experience distinct from similar psychological experiences (Mukhopadhyay, 2014). In this article I shall elaborate how a unique genre of film-making – the *docu-fiction* exploits the juxtaposition of fiction and reality manipulating the oscillatory dynamics of art appreciation.

### 3. Extant investigations on SOD:

The phrase '*willing suspension of disbelief*' was coined in 1817 by the poet and philosopher S.T. Coleridge, whereby he suggested that readers temporarily suspend the improbability of a narrative through poetic faith (Coleridge, 2009, p.239). The modern philosophical debates on the paradox of fiction (Radford & Weston, 1975) investigated how people get emotionally involved in fiction despite knowing that it is fiction. Some of these concepts include the make-believe (or simulation) theory proposed by Kendall Walton (Walton, 1990), the concept of imaginative resistance (inspired by David Hume) by T. S. Gendler (Gendler, 2000), the thought theories by Peter Lamarque, Noël Carroll, and Murray Smith (Schneider, 2014) or the Illusion theory drawn from the original Coleridge's theory of 'willing suspension of disbelief' (Schneider, 2014). The information-processing stage model of aesthetic processing by Leder et al., (2004) elaborated the five-stages of aesthetic processing and distinguished between aesthetic emotion and aesthetic judgments as two types of output. With respect to film, Anthony J. Ferri analyses SOD through a range of theoretical, critical and empirical viewpoints in his book '*Willing Suspension of Disbelief: Poetic Faith in Film*' (Ferri, 2007).

The neuro-psychological interpretations regarding SOD during art appreciation has also been investigated in recent times. Abraham et al., (2008)

investigated through functional imaging studies the neural response when telling apart what is real from what is fictional in the context of our reality. Metz-Lutz et al., (2010) conducted a fMRI study to observe the physiological changes and cerebral signatures that tell us about adhesion to fiction during theatre-watching. Norman Holland who specializes in psychology of arts has written a series of articles on the neuropsychology of SOD (Holland, 2008; 2009a; 2009b). He highlights how a dual system in the brain, a rapid system that believes what is perceived and a slower system that judges the probability of what is perceived and believes or disbelieves accordingly operates while we are we are being '*transported*' by a literary work (Holland, 2009b).

The essential difficulty of the extant theories on the paradox of fiction and SOD is that the functional coherence of these paradoxical inconsistent events during art appreciation is either explained without any empirical framework (based on experimental psychology or neuroscience) or even if explained neuro-scientifically, they fail to highlight the dynamic spatial-temporal relationship between the brain processes which can result in these paradoxical events. The DPO hypothesis (Mukhopadhyay, 2014) highlights two integral aspects of aesthetic delight:

1. The phenomenon of SOD whereby the person experiencing art temporarily suspends the belief of surface reality.

2. The phenomenon of IDC whereby the same person, while experiencing the same art, reflects on the artistic phenomenon being aware of the surface reality and the nature of representation.

The above two characteristics of aesthetic delight seem contradictory to each other and that is why it can be called the aesthetic paradox (how can someone simultaneously suspend and become aware of surface reality?). It is for this reason there is simultaneous emotional rapture and a state of calmness in art appreciation. It is because of the interplay of these two aspects that one having an aesthetic experience remains attached and simultaneously detached from the art. The hypothesis provides a neuro-psychological solution to this problem whereby it proposes with reference to recent neuro-scientific findings that the two apparently simultaneous events described above as SOD and IDC are actually temporally demarcated but the temporal difference may be unperceivable. Most importantly, the

hypothesis further emphasises that it is the oscillatory balance between these two phases regulated by the DMN dynamics of the brain that actually generates aesthetic delight.

The concept of Introspective Detached Contemplation (IDC) can be explained through the neurology of meta-representation or meta-cognition (Mukhopadhyay, 2014) which refers to 'one's knowledge concerning one's own cognitive processes and products or anything related to them' (Flavell, 1979; Johnson et al., 2002; Sun & Mathews, 2012) and is actively thought to be integrated with the DMN activity (Damasio 2010, p. 166). Meta-representations are generated when a second-order network observes and reproduces the states of the first-order network on its output units (Cleeremans et al., 2007, Damasio, 1989). The sense of detachment that comes along with introspective contemplation in aesthetic delight results from the integration of meta-representations which can be produced in this stage (Mukhopadhyay, 2014).

In conjunction to SOD-IDC dynamics, aesthetic appreciation is definitely created by the innate predispositions as well as experiential conditioning of the individual person giving rise to aesthetic variability. It is obvious that the speed of information processing depends on how much the individual is familiar or aware of a particular form in the art-work. The introspective phases similarly are influenced directly by the prior acquaintance with socio-cultural-historical contexts and also by autobiographical memory (Mukhopadhyay, 2014).

#### 4. Film:

##### *Fiction, Documentary and the DPO hypothesis*

Film's unique ability in documenting naturalism involving both visual and aural perspectives creates an impediment in the maintenance of SOD; a problem that is not faced in such proportions in other art forms - not even in theatre. This is because during film viewing, any minor discrepancies with the naturalism of the cinematography or the narrative are magnified easily to our perception. While reading a work of fictional literature we may be successful in withholding our sense of disbelief regarding an unnatural scenario in the narrative. However the filmic adaptation of the same fictional literature has to be extremely cautious in dealing

with this scenario since its celluloid representation can appear as appalling to the same person. So the spell of SOD can be broken easily in film and the IDC phase can infiltrate prematurely at the slightest pretext.

However, if this indeed happened during film-viewing every time, then any distortion of reality in film would have been a failure and there would have been no scope of exploiting the other expressive power of film: representation of imaginative abstraction and fiction– either in form or in content. We know that this is not true as film can very much be the world of fantasy and dreams.

To understand this problem, we have to emphasise here the *mindset* of the viewer during art appreciation. During art appreciation of any form, the person experiencing the art adopts a specific mindset in order to relish the uniqueness of the specific art form. Thus while viewing Michelangelo's *David*, although we can feel the tension before the combat and anticipate what would follow, we do not expect the figure to literally perform the subsequent actions. When we see a stage performance of Shakespeare's *Macbeth*, we accept the limitations of stage production and do not get distracted by the depictions of the intense battles within the confines of limited space performed with limited number of actors. However, in film we expect a much more naturalistic depiction and hence when we see Polanski's film-version of *Macbeth* (1971) we already are mentally prepared to watch the brutal, gory and violent portrayals of battle and murder (Figure 4).



Figure 4: Roman Polanski's 1971 film adaptation of *Macbeth*

[Source: <http://artsfuse.org/118500/fuse-film-review-roman-polanskis-macbeth-a-paranoiac-fever-dream/> (original copyright: The Criterion Collection)]

This preconceived mindset is also different in the two broad divisions of film genres: the *fiction* and the *documentary*. In a *fictional* film the filmic adaptations of credible narratives and characters assist in convincing the viewers that the fiction is real. However, the audience has already a preconceived mindset that this is a fictional representation of an idea, a story or a real incident involving actors playing the role of certain characters. While about to watch a *documentary* film on the other hand, the spectator has a built-in mindset that what they are about to watch was shot in real time with characters playing their own role in real life.

So how is the DPO hypothesis relevant in case of *fiction* and *documentary* film or how does the SOD-IDC dynamics operate in these two different film genres? A *fictional* film is a re-construction of ideas, stories or real-life incidents. The technical power of the film medium can construct a realistic re-construction in *fictional* film. However, the SOD-IDC dynamics during *fictional* film viewing is driven by the preconceived mindset of the viewer which ingrains the idea that what we are watching *is* a fictional representation. We take the fictional representation for granted just like we take for granted the confines of a limited space of theatre. The SOD phase during information resolution makes us *unaware* of this belief and the IDC phase subsequently reminds us that it *is* a fictional representation and the aesthetic delight is generated as per the DPO hypothesis. While watching a *documentary* film our mindset is that of watching *real-time* presentations rather than *fictional* representations. Since the *documentary* film generally documents (records in film) real life in real time there is no need to suspend the awareness of fictionality. However, it is to be remembered that the *fiction-reality* aspect of SOD is only one of the multiple layers of the attributes of SOD and the other aspects of SOD are very much in operation, be it in *documentary* or *fictional* film. Hence, the SOD-IDC dynamics is very much in operation in both the film forms – only some of the characters are different.

How does *fiction* and *documentary* films exploit the uniqueness of the art form of film through this DPO dynamics? The uniqueness of the art form of film is its unparalleled ability in capturing naturalistic slices of real-life experiences both visually and aurally and also its power in representing imaginative abstraction and fiction. *[FN: Obviously the naturalistic reproduction has got several differences with nature itself; for example, in the alterations of dimensionality and depth and the lack of*

*space-time continuum between the film and the observer, lack of depiction of the senses of touch, smell etc (Arnheim, 1969). However, the power of mechanical recording of events of the film medium is superior to any other art form.]* Despite the realistic re-construction of ideas, stories and real life incidents in fiction, the SOD-IDC dynamics in *fictional* film, as we saw, is controlled by the mindset of the viewer that this film is a fictional representation. Hence, even though *fictional* film can simulate naturalistic depiction of reality it does not exploit the power of the film medium in capturing slices of real life in real time at its fullest. In those *documentary* films which strictly obey the recording of real-life situations in real-time without any recreations, the SOD-IDC dynamics is not governed by the awareness of fictionality. Hence in these *documentaries* the scope of reconstructing fictional elements (which is the other power of the film medium) is a challenge.

The different modes of exploitation of the film medium in *fiction* and *documentary* does not for once place one form of the genre over the other. It only re-emphasises Godard's famous proposition that '*all great fiction films tend towards documentary, just as all great documentaries tends towards fiction*' (Godard, 1959 [1972]). Hence the depiction of the Holocaust in Spielberg's *Schindler's List* (1993, fictional *docu-drama*) and Resnais' *Night and Fog* (1955, *documentary*) are both unique in their own approaches and both are masterpieces (Figure 5). It is true that *fictional* films can portray a certain type of truth that is unique to its genre and documentaries can portray a kind of poetry that is also unique to its kind.



**Figure 5: Holocaust at gunpoint; left: reconstruction at *Schindler's list* (1993 docudrama); right: original photograph shown in *Night and Fog* (1955 documentary)**

[Source: left: <http://patdollard.com/2014/02/oscar-winner-pens-letter-accusing-academy-of-anti-christian-bigotry/> (original copyright: Universal Pictures/ Universal Studios); right: <http://www.listal.com/list/andrew-sarris-favorite-films> (original copyright: The Criterion Collection)]

The terminology *docu-fiction film* was coined for a unique genre of filmmaking which merges and synthesises *documentary* and *fictional* narrative cinema (Huizhen, 2012; Rhodes & Springer, 2006). This film genre seriously attempts to play with the preconceived mindset of the film viewer by introducing the element of ambiguity in a distinctive way exploiting the unique attributes of the art form of film at its fullest.

## 5. Docu-fiction Film:

### *Ambiguity in ontological status*

Although the *docu-fictional* approach to filmmaking is seriously developing as a unique genre in contemporary cinema, the *fiction-documentary* distinction was often blurred even in the earliest times of filmmaking. The nature of certain film forms utilised this *docu-fiction* style by either incorporating *documentary* footages in a predominantly *fictional* film or integrating fictional elements in a primarily *documentary* film. Robert Flaherty's *Moana* (1926), *Nanook of the North* (1922), *Louisiana Story* (1948) are early examples of this hybrid approach of filmmaking. The definition of the genre of *docu-fiction* remains subjective and the range of styles encompassing this genre is also debatable. Rhodes and Springer, 2006 defines *docu-fiction* film as “the creative merging and synthesis of documentary and fictional narrative cinema” ranging the gamut from *mockumentaries* to *docudrama* (Huizhen, 2012). Lipkin et al. 2006, breaks down *hybrid documentaries* into four major categories: the *drama documentary* (or the “*dramadoc*” or “*docudrama*”), the *documentary drama* (or the *pseudo-documentary*), the *faction* and the *mock-documentary* (Brown, 2010). Each of these hybrid genres has *docu-fictional* characteristics although it is debatable whether each of them can be strictly called *docu-fiction*. Leaving aside the nuances of terminological debates, it is worthwhile to look into the characteristics of some of the *hybrid-film* styles using the *docu-fictional* approach.



The *drama documentary* (or *dramadoc* or *docudrama*) incorporates both historical sequence of events and historical figures into a typical narrative drama (Lipkin et al. 2006; Brown, 2010) which features dramatized re-enactments of actual events. A typical example of *docudrama* is the 1970 American-Japanese war film *Tora! Tora! Tora!* which dramatizes the Japanese attack on Pearl Harbor.

The *documentary drama* (or *pseudo-documentary*) is a fabricated simulation of the *documentary* genre of filmmaking which does not portray real events and may be completely based on a fictitious plot. A notorious example of this genre is the infamous Italian film *Cannibal Holocaust* (1980) directed by Ruggero Deodato. The brutal violence and murders depicted in the film in the form of *pseudo-documentary* was so convincing that the director was arrested for alleged murder of the actors during shooting. Quite a few scenes were scrutinized by the courts to resolve whether the killings portrayed were staged or real.

The *faction* is a style of filmmaking that portrays a developing fictional narrative in the context of a real social-historical issue or incident that is assumed to be well known to the audience. It can utilize *documentary* clips with fictionalized footage and is more a fictional narrative drama. Andrzej Wajda's trilogy *Man of marble* (1977), *Man of iron* (1981) and *Man of hope* (2013) are perfect examples of *faction* dealing with parallel developments of narrative in the backdrop of Poland's political history (Lipkin et al. 2006; Brown, 2010).

*Mock documentary* (or *mockumentary*) portrays fictional events presented in *documentary* style to mimic real life stories or other genres of *documentary* or *fictional* films (Campbell, 2007). The unique aspect of *mockumentary* that separates it from *pseudo-documentaries* is that the faking aspect of the genre is either evident throughout in the form of a parody or at least evident at some points of the film. Albert Brooks' *Real Life* (1979) is a typical example which was a parody of a PBS documentary series *An American Family* (1973).

*Metafilm* (or *metacinema*) is a genre of chiefly *fictional* filmmaking that consciously draws attention to its own process of development and production. *Metafilm's* inherent plot literally makes the audience aware that they are watching a film since it is self-referential in its representation. A good example of *metafilm* is

Michael Winterbottom's 2005 film *Tristram Shandy: A Cock and Bull Story* where the *film-within-a film* approach uses actors playing themselves.

Contemporary *docu-fiction* films may emphasise the characteristics of each of these above mentioned filmmaking structures and there may be a blend and overlapping of these hybrid styles. A unique evolution in the approach of contemporary *docu-fiction* filmmaking is in its conscious attempt to infuse a sense of ambiguity in the mind of the audience in determining the ontological status of the film. The purpose of the *docu-fiction* now is more than just introducing an element of authenticity in *fiction* film or filling in the gaps of a *documentary* film with fiction. The evolving genre now deliberately plays with the preconceived *mindset* of the audience and exploits the SOD-IDC dynamics utilising the unique power of the film medium. It is how the film is experienced by the audience and how the fiction-reality dynamics is influencing the mindset of the audience that is of utmost importance. In the following section, I exemplify the essence of *docu-fiction* filmmaking through two films both made by internationally acclaimed filmmakers: *The thin blue line* by Errol Morris (1988) and *Close-Up* by Abbas Kiarostami (1990). I illustrate how the process of filming and treatment of narrative in these two films advanced the art of contemporary *docu-fiction* film. Table 1 illustrates the significant features of these films which made them unique works of *docu-fiction*. It will be better to watch these films before proceeding into their analyses since the reader's own interpretation of these films can help in understanding my explanations. Besides, both these films are landmark films and are worth experiencing.

### **5.1 *The thin blue line* (1988); director: Errol Morris**

*The thin blue line* is a 1988 film by Errol Morris, portraying a real account in the life of Randall Adams, a man convicted and first sentenced to death and then for life in prison for an alleged murder. After Morris' film, Adams' case was reviewed and he was released from prison approximately a year after the film's release. The film was credited to be one of '*the most political work(s) of cinema*' in recent years (Anderson, 2006).

This 1976 Dallas, Texas incident involved 28-year-old Randall Adams, a drifter, who ran out of fuel en route his journey and was picked up by 16-year-old David Harris who came by in a stolen car driving to Dallas with his father's pistol. The two spent the day together drinking, consuming drugs before going to watch a drive-in movie that evening. It is after this that their stories diverged from each other's version. Adams claimed that he left for his motel, where he was staying with his brother, and went to sleep. Harris, however, said that they were stopped by police late that night, and Adams suddenly shot the officer approaching their car.

Morris's film painstakingly re-enacts the crime scene and investigation of the police officer's murder from multiple perspectives. The film presents a series of interviews about the investigation based on the testimony and recollections of Adams, Harris, and various witnesses and investigators.

Director Errol Morris spent two and a half years tracking down the individuals involved in this case and convincing them to appear in the film (IMDB, 2014). This is not a minor decision on the part of the director. The entire texture of the film changes dramatically once the audience is aware of the fact that the real-life characters are voicing their own account what could possibly have happened or what could possibly be a lie. The use of this real-life, first person account of the narrative became a trend-setter in later *documentaries*.

*The thin blue line* is one of the first *documentary* films that deliberately tried to use fiction in order to question the authenticity of a previously established reality: the testimony against Randall Adams. Morris himself called the film "an essay on false history" (Livesey, 1999). It strongly makes a point that the circumstantial evidence against Adams was weak and unconvincing and that Harris should have been the prime suspect.

The film stages the re-enactments of statements from real-life characters which curiously has an ambiguous ontological status. Even though the film recreates the shooting from multiple perspectives, it does not recreate the one in which Harris is shown directly shooting the officer, the version which the film argues to be true. Thus the re-enactments of arguably the false history were performed using real-life accounts and first-person narrative of the actual individuals. Morris thus balances fiction and reality in an insightful manner. To further enhance the

intimidating intimacy of the interviewee with the audience, Morris used his famous interview technique (which was later developed into the Interrotron device), which allows the subjects to simultaneously look into the eyes of the interviewer as well as towards the camera. The treatment of the plot, the mode of filming and the choice of characters in the film all have a profound influence in the audiences' aesthetic experience. Throughout the film the audience is presented with the ambiguity of reality and fiction, truth and lies and first-person account of statements which when re-enacted surprisingly does not seem credible. Any preconceived idea regarding the fictionality or the documentary reality of the film does not hold for long since the ambiguity of reality and fiction predominates throughout.

It is to be remembered that the ambiguity of truth and fiction is widely explored in *fiction* films through the use of multiple perspectives. Kurosawa's *Rashomon* (1950) is the most famous example of a fiction film using this approach. However, despite the enormous impact of *Rashomon*, it simply cannot match the power of ambiguity of *The thin blue line* that almost unsettles the audience. This is because the use of documentary reality in this film through the use of real-life characters, real photographs, news-paper footages and voice-overs juxtaposed with fictional narrative (assisted by film clips, music etc), re-enactments and false statements creates an extreme tension between reality and fiction in this film (see Table 1 for an analyses of key elements of the film). This is not possible to construct in any completely *fictional* film since in those cases, the preconceived mindset of the audience that this *is* a fiction, holds true throughout unlike this film.

### **5.2 Close-Up (1990); director: Abbas Kiarostami**

Iranian auteur filmmaker Abbas Kiarostami, in his 1990 film *Close-Up*, explored the potential of *docu-fiction* filmmaking constructing unprecedented tripartite dimensions of reality and fiction (Figure 6). In the 2012 *Sight & Sound* poll, the film was placed within "the top 50 greatest films of all time" (Christie, 2012).

The film is based on the real-life trial of Hossain Sabzian, an avid film lover and an ardent fan of internationally acclaimed Iranian filmmaker Mohsen Makhmalbaf. Sabzian impersonated Makhmalbaf, misleading a family into believing they would participate in his upcoming film.

The film bears constructive similarities with *The thin blue line* in the depiction of a true incident, in re-enactments of real-life incidents and in assembling real-life characters. However, a path-breaking approach adopted in this film is the re-enactments of the real-life story by the *same* real-life characters literally reconstructing the reality acting as themselves (see Table 1). In *The thin blue line*, Randall Adams and David Harris were the real-life characters who appeared in the film narrating their accounts in the interview. However, the re-enactment of the crime scene was staged using different actors (Adam Goldfine for Randall Adams and Derek Horton for David Harris). In *Close-Up* however, Hossain Sabzian is both the character of the story and the actor in the film. Sabzian not only narrates his real-life account in the film but also re-enacts himself in his *own* real-life story. Not only Sabzian, but most of the central characters in the film including the family all play themselves. The magnitude of this approach needs to be realized since this is *not* a mainstream *documentary* solely capturing real-time activities of real-life people but a unique blend of reality and fiction involving the narrative, actors and characters.

The ambiguity of reality and fiction is ingrained in the film at three levels (Figure 6). The film itself is part real-time footage and part reconstruction. The actors in the film especially Hossain Sabzian are partly seen in actual real-life activities and partly seen re-enacting real-life activities. The character Hossain Sabzian impersonates filmmaker Mohsen Makhmalbaf whenever he is in association with the Ahankhah family but withdraws to his own poor self whenever he is disengaged from the family. The audience thus has absolutely no scope of branding the film exclusively as documentary or fiction. In an extraordinary climax, Kiarostami also fixed up a meeting between director Mohsen Makhmalbaf and Sabzian who helps him to facilitate forgiveness from the Ahankhah family. In one of the most poetic-realistic sequences in contemporary cinema, the film crew follows the motorcycle on which Makhmalbaf and Sabzian rides to visit the Ahankhah family and the conversation between Makhmalbaf and Sabzian often gets snapped due to a faulty microphone set-up (*reality? fiction?*). Sabzian carries with him flowers to present the family. After pushing the door bell and while waiting for the family to answer, Sabzian breaks down and Makhmalbaf consoles him. The boundary between reality and fiction at all the levels gets blurred.

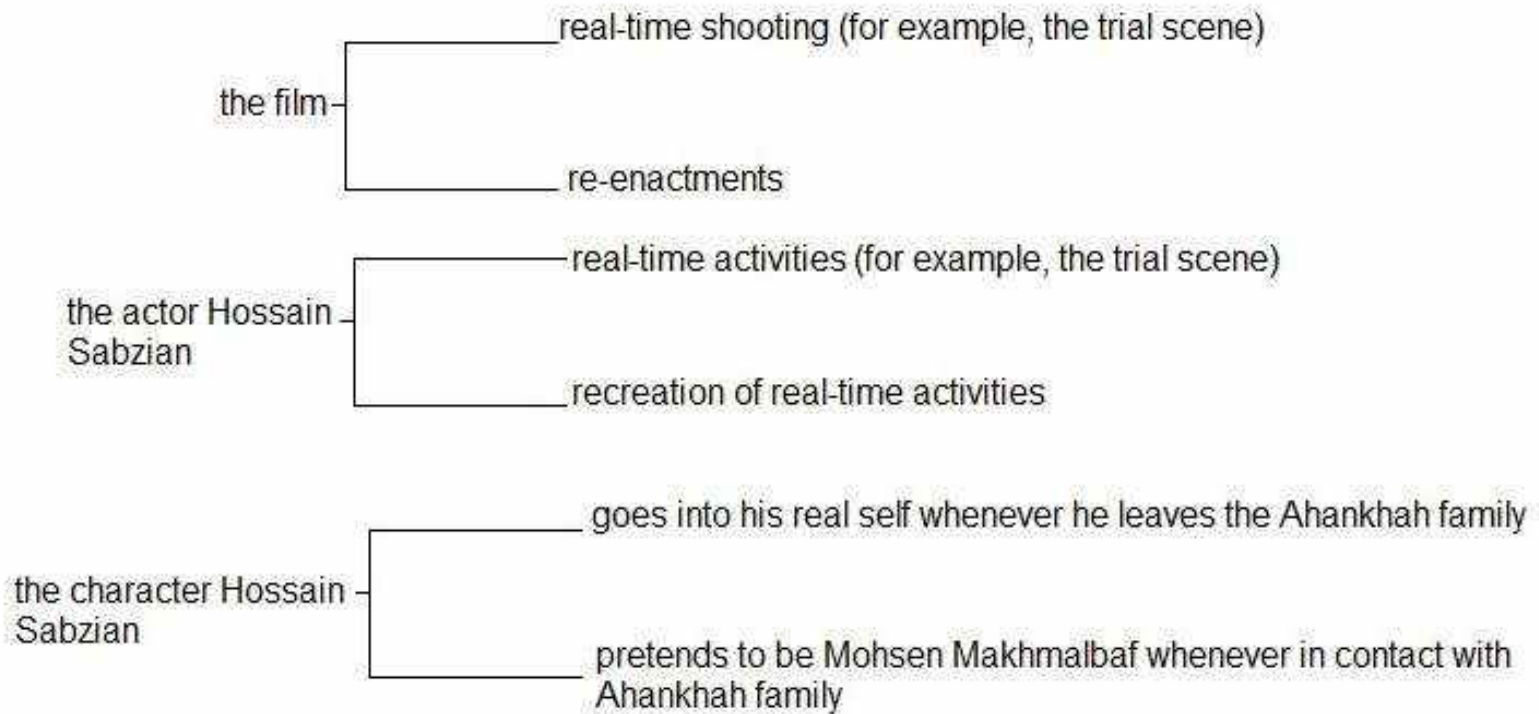


Figure 6: Tripartite dimensions of reality and fiction in Abbas Kiarostami's 1990 docu-fiction film *Close-Up*

**Table 1: A review of the essential features of the docu-fictional films *The thin blue line* (1988) and *Close-Up* (1990) which results in an ambiguity in their ontological status:**

The film	Genre	Plot	Real-Time shooting	Staged shooting	Real-life characters used	Staged actors used	Trivia surrounding the film (Sources: IMDB, 2014; Wikipedia contributors (2014a,b)): a background knowledge of these facts may influence the mindset of the audience
<p><b><i>The thin blue line</i> (1988, USA)</b></p> <p>Dir: Errol Morris</p>	<p><i>Docu-fiction</i></p>	<p>Portraying a real account in the life of Randall Adams, a man convicted and first sentenced to death and then for life in prison for an alleged murder.</p>	<p>Yes: the interviews</p>	<p>Yes: the recreations</p>	<p>Yes: at interviews</p>	<p>Yes: at recreations</p>	<ol style="list-style-type: none"> <li>1. The film was rejected by the Oscars for Best Documentary category in 1989 because it was considered to be a fictional film due to its scripted content.</li>   <li>2. The film won Best Documentary honors from the New York Film Critics Circle, the Kansas City Film Critics Circle, the National Board of Review, and the National Society of Film Critics. In 2001, the film was selected for preservation in the United States National Film Registry by the Library of Congress as being 'culturally, historically, or aesthetically significant'.</li> </ol>

							<p>3. Errol Morris spent 2-1/2 years tracking down the various players in the Randall Adams case and convincing them to appear in the film.</p> <p>4. After the film Harris testified that 'Randall Adams knew nothing about this offense and was not in the car at the time.' Adams' capital murder verdict was overturned and he was released from prison in March 1989.</p> <p>5. David Harris, at age 43, was executed by lethal injection on 30th June, 2004 for a completely unrelated murder. The weekend Harris committed this second murder, filmmaker Morris had an interview scheduled for him for his film.</p> <p>6. After release from prison, quite interestingly, Adams filed a suit against filmmaker Errol Morris over the rights to his life.</p>



<p><b>Close-Up (1990, Iran)</b></p> <p>Dir: Abbas Kiarostami</p>	<p><i>Docu-fiction</i></p>	<p>Based on the real-life trial of Hossain Sabzian, an avid film lover and an ardent fan of internationally acclaimed Iranian filmmaker Mohsen Makhmalbaf. Sabzian impersonated Makhmalbaf, misleading a family into believing they would participate in his upcoming film.</p>	<p>Yes: the trial and some other episodes like the meeting of Sabzian with Makhmalbaf (?)</p>	<p>Yes: majority of the other parts are recreated.</p>	<p>Yes: most of the real-life characters were actors in the film acting themselves including Sabzian, the Ahankhahs, the reporter, Makhmalbaf, director Kiarostami and others.</p>	<p>Yes: a few characters like the police crew might be recreated by other actors (?).</p>	<ol style="list-style-type: none"> <li>1. Kiarostami first heard about Sabzian in 1989 after reading about the incident in an article in the Iranian magazine <i>Sorush</i> by journalist Hossain Farazmand.</li> <li>2. Kiarostami was allowed to film Sabzian's trial and also got Sabzian, the Ahankhahs and Farazmand to agree to participate in the film and to re-enact incidents from the past.</li> <li>3. Kiarostami also arranged for Mohsen Makhmalbaf to meet Sabzian and help facilitate forgiveness between Sabzian and the Ahankhahs</li> <li>4. Five years after <i>Close-Up</i>, Moslem Mansouri and Mahmoud Chokrollahi wrote and directed the documentary <i>Close-Up Long Shot</i> in which Sabzian talks about his infatuation with cinema, his impersonation of Makhmalbaf and how his life has changed after working with Kiarostami.</li> <li>5. Nanni Moretti's 1996 Italian short film <i>Opening Day of Close-Up</i> follows a theater owner as he prepares to show Kiarostami's film at his independent cinema.</li> </ol>
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### **5.3 Interpretation of these films through DPO hypothesis:**

The DPO hypothesis (Mukhopadhyay, 2014) based on the neural correlate of aesthetic paradox operates through the dynamic, oscillatory balance between SOD and IDC during art appreciation and is orchestrated by functional coherence of DMN. The nature of SOD-IDC dynamics is different in conventional *fictional* film, *documentary* film and *docu-fiction* film as I have highlighted before. It has also been illustrated that despite the realistic representation of ideas, stories and real-life incidents in a conventional *fictional* film, the SOD-IDC dynamics is controlled by the mindset of the viewer that this film *is* a fictional representation. On the other hand, those *documentary* films which strictly follow real-time shooting throughout without any recreations, the SOD-IDC dynamics in those films is not governed by the preconceived awareness of fictionality but a preconceived idea that this *is* real-life shot in real-time. Since the film medium can portray both *documentary* reality and absolute fantasy, either one of the attributes is not fully explored in orthodox, conventional *fiction* and *documentary* film.

The *docu-fiction* films, as we can see from the above examples, can portray both *documentary* reality shot in real-time and at the same time can also juxtapose fiction. Not only that, the treatment of reality and fiction can be so delicate that their boundaries are blurred and a unique sense of ambiguity unsettles the audience. This leads to a failure in the part of the audience to construct any pre-conceived notion regarding the brand of the film. The preconceived mindset of an audience can be built through different means. Before going to see the film a person may gather background information regarding a film and form an opinion. This kind of background study can be done for any kind of art form. In case of films, the mere name of the film or even the director may provide considerable background information. Thus, even before going to see *Spider-man* (2002) by Sam Raimi, we should be able to know the genre of the film without any background study. Though the titles sometimes mislead, the combination of the title and the director (Sam Raimi directed *The evil dead* (1981) and *The quick and the dead* (1995) before directing *Spider-man*) rarely play tricks. A certain amount of background study of the plot sometimes plays a crucial role in forming a pre-conceived notion about the film's genre. A background study of the following titles reveal that *Titanic* (1997) is a fictional drama recreating the disaster of 1912, *The Legend of the Titanic* (1999) is

an animation fantasy and *Secrets of the Titanic* (1986) is a National Geographic *documentary* exploring the remains of the 1912 wreck of Titanic. So, the mindset of the audience is built accordingly while about to see these films. Even without a background study, if the audience goes through the films for a short period of time, they can conceive the prevailing genre. This preconception holds true throughout the film experience in case of conventional *fiction* and *documentary* films.

How is this pre-conception broken down in *docu-fiction* film? Suppose we go through a background study of the film *The thin blue line*. We would thus know the plot of the film and may form a notion that it is a *documentary*. Or if we start seeing this film even without any background study, within 1.5 minutes, we construct a belief that it may be a work of *documentary* when we see a man narrating his account of the story shortly followed by the shot of another person narrating *his* account. The cross-cutting of their narratives discloses their identities and we realise that they are the two real-life characters of the story. This, along with inserts of a photograph of a pistol, aerial shots of Dallas, maps, motels etc, leads us to believe that this is a *documentary* where these two people will respectively narrate their accounts. This is followed by the first recreation of the shooting. We further realize that it is a *documentary* with re-enactments. The authenticity of the re-enactment is not questioned yet. What follow it are the interrogation of Adams, the account of the officers and a second recreation of the shooting. The first and the second recreation do not seem too different and the constructed *documentary* approach is maintained. It is while explaining the responsibility of the fellow female officer in the patrol car, one officer indicates that she might have been sitting *in* the car against the protocol, having a milkshake, while his partner went towards the suspected car. This account is followed by two successive recreations - one showing the female police officer getting out of the car as per protocol and the subsequent recreation representing the version of the officer. This gives the first jolt to the audience. It immediately forces us to question the authenticity of the recreations. We re-evaluate our preconception of this film which we had initially labelled as a *documentary*. From here on the ambiguity of the *docu-fictional* approach sets in. We further see how the interview accounts differ and how the re-enactments differ. However, we still can't label it as *fiction* since we are experiencing eye-witness accounts of real people who were integrally involved with the case.

If we take the example of *Close-up*, the tripartite dimensions of reality and fiction (Figure 6) represented in the film through the narrative, actors and characters result in an even stronger *docu-fictional* approach. The audience can't hold for long his constructed mindset regarding any of the three dimensions. Is it a real footage or reconstruction? Is the character reconstructing his own life or just carrying on a real-life activity? Is the character now the poor Sabzian or is he impersonating Makhmalbaf? How are these dimensions interacting with each other? All these questions literally unsettle the audience.

This tension between *reality* and *fiction* has a profound influence on the SOD-IDC dynamics. In a completely *fictional* film, the preconceived mindset of the audience that this *is* a work of fiction holds true throughout and the SOD-IDC dynamics operates accordingly throughout. The SOD phase during information resolution makes us unaware of this belief and the IDC phase subsequently reminds us that it *is* a *fictional* representation and the aesthetic delight is generated as per the DPO hypothesis. While watching a conventional *documentary* film there is no need to suspend the awareness of fictionality and thus the SOD-IDC dynamics does not involve the layer of fictionality. As I have mentioned earlier, it is to be remembered that the absence of the layer of fictionality *does not* at all mean the absence of SOD altogether. The fiction-reality aspect of SOD is only one of the multiple layers of the attributes of SOD and the other aspects of SOD are very much in operation, be it in *documentary*, *fictional* or *docu-fictional* film.

In the *docu-fictional* film, the SOD-IDC dynamics of both a *fiction* film and a *documentary* film operates oscillating in a bigger scenario. We may call it the oscillation between (SOD-IDC)<sup>f</sup> and (SOD-IDC)<sup>d</sup> (where *f* and *d* stands for *fictional* and *documentary* approaches respectively). This allows the *docu-fiction* film to explore the unique attributes of the film medium at its fullest. It can portray real-life in real-time and also construct fiction. Any preconceived mindset regarding the branding of the film as *fiction* or *documentary* does not hold for long. The interesting aspect is that even if we try to form a mindset that this is a *docu-fiction* film, it does not make any difference. The ambiguity persists.

The DPO hypothesis is based on the functional coherence of the DMN of the brain (Mukhopadhyay, 2014) which orchestrates the SOD-IDC dynamics. In this

article I illustrated how the generation of ambiguity in *docu-fictional* film controls the oscillatory balance between (SOD-IDC)<sup>f</sup> and (SOD-IDC)<sup>d</sup> by controlling the mindset of the audience. In the following section, we shall explore how the neurology of mindset and that of ambiguity (Zeki, 2004) in art appreciation can be integrated with the DPO hypothesis.

## 6. The neurology of *mindset*:

The concept of top-down processing in cognitive psychology is that it is the sensory processing which is influenced by expectations, stored knowledge, context and so on (Eysenck, 1998, p. 152). The brain, as we know, is not a mere passive recorder of external events but an active participant in constructing what we see to gain knowledge about the world (Zeki, 2004). Top-down control has a *priming effect* on our psychology of perception as well as interpretation. Thus through top-down control, what we experience is guided by what we *expect* to experience. Top-down processing is a knowledge-driven processing involving the use of contextual information supplied from memory (Carlson et al., 2010, p. 202). Its crucial difference with bottom-up processing is that top-down processing does not rely solely on information directly drawn from a stimulus but uses information that already exists in the cognitive system. What I propose here is that the construction of a mindset during art appreciation (equally valid for *film* appreciation) involves storing information in the memory which later helps in top-down interpretation of the art through the priming effect. The construction of a mindset and the resulting priming effect can affect both the SOD and the IDC phases during art appreciation. In case of visual art the familiarity with a visual form results in faster information processing during the SOD phase and the background knowledge of an art work can influence the IDC phase (Mukhopadhyay, 2014). The same kind of priming effect is possible while constructing a mindset regarding the genre of a film. After all, the feature of a specific genre of film is constructed through a set of information that requires being stored beforehand in the cognitive system if we are to interpret the film while experiencing it. Thus the SOD-IDC dynamics of either a *fictional* film or *documentary* film is primed by our stored information regarding those genres and thus the mindset of audience controls the DPO process. The mindset, as I have explained before, can be constructed by prior background information or even during the processing of

information during the experience of a film. Preceding information primes the interpretation of subsequent information.

In a *docu-fiction* film, the mindset of the audience may be constructed by prior background information or during watching the film. However, this mindset cannot offer a stable *expectancy* regarding the genre of the film. This is because the frame of mind is constructed through the constant feedback of information some of which may be categorised under *documentary* while some other may be classified under *fiction*. This results in an ambiguity whose neurological interpretation needs to be made here.

Semir Zeki constructed a neurobiological definition of *ambiguity* as “the certainty of many, equally plausible interpretations, each one of which is sovereign when it occupies the conscious stage” (Zeki, 1999; 2004). In his 2004 paper, Zeki highlights that:

“...there are different levels of ambiguity dictated by neurological necessity and built into the physiology of the brain. These different levels may involve a single cortical area or set of areas; they may involve different cortical areas, with different perceptual specialization or they may involve, in addition, higher cognitive factors such as learning, judgment, memory, and experience” (Zeki, 2004).

It is the *higher levels of ambiguity* that Zeki explains with reference to art that is important in our analyses (Zeki, 2004). Through Vermeer’s paintings and Michelangelo’s sculpture (*Rondanini Pieta*) Zeki asserts that a great work of art deliberately introduces element of ambiguity through form and content so that the capacity of multiple experiences are there even though we are conscious of only one at any given moment (Zeki, 2004). These multiple experiences, he says, can even be contradictory in nature which can enhance the interpretive perspective. At a higher level this ambiguity of art can activate several distinct areas of the brain including the frontal and pre-frontal cortices that are able to bring their influence certainly involving top-down effect (Zeki, 2004). The role of memory, experience and learning thus become a decisive factor while interpreting this ambiguity. The DMN areas of the brain associated with the DPO hypothesis are integrally associated with the performance of executive functions including working memory, reasoning, task

flexibility and problem solving. Hence, the neurology of *mindset* and *higher-order ambiguity* can be actively integrated with the DPO mechanism.

## 7. Conclusion:

This article is an extrapolation of ideas from Mukhopadhyay's article on the DPO hypothesis based on the neural correlate of aesthetic paradox (Mukhopadhyay, 2014). The hypothesis does not restrict itself to static visual art but has the possibility of extending to other disciplines of art including music, dance, theatre and film. In performance and performing arts like theatre and film an important functional aspect of SOD, in addition to other central elements, is the suppression of the literal identity of the performer in the narrative performance and an overall suspension of the awareness that the art form is staged or filmed. Superior to any other medium of art, the art form of film can embrace two extremely divergent aspects of creativity: it can portray naturalistic verisimilitude and it can also depict imaginative abstraction and fiction. *Docu-fiction* film, a developing genre in contemporary filmmaking, is the blend between *documentary* and *fictional* film and it attempts to capture *documentary* reality while simultaneously introducing fictional elements in the narrative. The treatment of reality and fiction can be so delicate in *docu-fiction* that their boundaries are blurred and a unique sense of ambiguity unsettles the audience. This leads to a failure in the part of the audience to construct any pre-conceived notion regarding the brand of the film. The mindset cannot offer a stable *expectancy* regarding the genre of the film. Thus the art of *docu-fiction* film-making utilizes in a unique way, the oscillatory dynamics between SOD and IDC as mentioned in the DPO hypothesis. The manipulation of this balance between these two phases introduces the element of ambiguity in *docu-fiction* film which exploits the unique attributes of the art form of film at its fullest. In the *docu-fictional* film, the SOD-IDC dynamics of both a *fiction* film and a *documentary* film operates oscillating in a bigger scenario.

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