Event segmentation and seven types of narrative discontinuity in popular movies

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ABSTRACT

Using a sample of 24 movies I investigate narrative shifts in location, characters, and time frame that do and do not align with viewer segmentations of events (scenes and subscenes) in popular movies. Taken independently these dimensions create eight categories, seven of change and one of nonchange. Data show that the more dimensions that are changed the more viewers agree on their segmentations, although the nonadditive variations across the seven change types are large and systematic. Dissolves aid segmentation but over the last 70 years they have been used less and less by filmmakers, except for two infrequent shift types. Locations and characters are strongly yoked, jointly accounting for most narrative shifts. There are also interactions of shift types over the 70-year span and across genres, as well as differences that affect the scale of the establishing shot in a new scene. In addition, several aspects of the narratives of individual movies affect the distributions of shift types. Together these results suggest that there are at least four different signatures of narrative shifts to be found in popular movies — general patterns across time, patterns of historical change, genre-specific patterns, and film-specific patterns.

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1. Introduction: popular movies, continuity, and discontinuity

> In drama, *scene* refers to a division within an act of a play, indicated by a change of locale, abrupt shift in time, or the entrance or exit of a major character.
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> (Polking, 1990, p. 405)

Works of theater, literature, opera, and film typically present stories that are broken into chunks. A *scene* is a medium-size chunk found in all the narrative arts and often synonymous with the concept of an event. It is the job of the film director and editor not only to present these as separate events, but also to elide them so that a semblance of *continuity* is maintained. For example, in movies scene boundaries are often covered by nondiegetic (background) music or occasionally by a voiceover to maintain the semblance of seamlessness. Continuity is particularly critical to popular movies because they are broken further into shots — runs of successive frames divided most often by cuts and abrupt changes in camera position. In this article I focus on discontinuities across the shot boundaries of the visual narrative that do and do not signal a new event.

Continuity, long an idea central to filmmaking, is a hybrid concept. It is partly psychological; continuity is what drives a movie smoothly to a climax, keeping the viewer engaged and anticipating possible outcomes while ingesting new information from the plot (Smith, 2012). But continuity is also a physical concept and can be deliberately broken along three basic and typically salient parameters of a scene — location, character, and time. As implied by Polking in the epigram, scenes canonically take place in a single location, with a single set of characters, during a single time frame. However, partly because the job of filmmakers is to mask the sutures across changes in these parameters, the definition of a scene, like that of continuity, is not only simply structural but also psychological. It is as much defined by film viewers as by filmmakers. My tasks in this article are to look at the concordance of viewer segmentations across the various types of narrative shifts in a representative sample of popular movies; to catalog the relative frequencies of the shifts in location, characters, and time; to suggest psychological causes for the differences that affect segmentation; and to reveal under-appreciated aspects of Hollywood style.

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2. Location, character, and time shifts across scenes

Messaris (1994) surveyed the nature of shifts across edited scenes.[1] From nine fictional television programs and a handful of movies, he cataloged some possibilities. He counted shifts in location and shifts in time (flashbacks and flashes forward), but he also considered shifts in "reality" — moves from diegetic (narrative) time to dreams, memories, or fantasies, and back again. I will denote such changes as additional shifts in time (see also Cutting & Iricinschi, in press). The reason is that visualized dreams occur during sleep (so the character is projected to a different narrative time), visualized memories are of previous events (so reflect back in time), and visualized fantasies occur in time frames that have never happened (and are therefore removed from the diegetic time stream of events). Moreover, such "reality" shifts are relatively rare in movies. Indeed, they occur in only three of 24 movies in the sample I will discuss, *Nine to Five* (1980), *Ordinary People* (1980), and *Inception* (2010), and all of these movies use special stylistic tools to denote such shifts.

In this article, I follow Messaris' lead in cataloging shifts of location and time, but I also include character shifts as well. I consider a character shift to occur either by addition, subtraction, or complete change of major characters across shots. Cutting and Iricinschi (in press) found that most movies have ten or fewer major characters and that each typically appears in at least 8% of all scenes. Thus, the character ensemble is not usually difficult to track. Individual characters are also typically invariant; that is, they usually do not change much physically, perhaps beyond aging, across the length of a movie.[2]

Time shifts, on the other hand, are often more difficult to detect. To be sure, many are obvious — day turns into night across a cut; blistering heat in one shot is replaced by a downpour in the next; a person runs through an airport and then a plane takes off; or two shots are separated by a dissolve or a fade, the traditional methods of denoting the passage of time (Cutting, Brunick, & DeLong, 2011). Unless marked in one of these visual or conceptual ways, however, it is often impossible to tell if time has shifted. Without evidence to the contrary, therefore, my students and I have coded scene changes as not having time shifts.

Moreover, many temporal ellipses seem insufficiently important or are simply too small to create a narrative shift. Consider a three-shot sequence about 20 min into *Erin Brockovich* (2000). In the first Erin (Julia Roberts) sits at her desk as a new employee in a law office trying to understand connections among folders for a case. A dissolve then occurs into the second shot and Erin is still at her desk with the same materials but seen from a different angle. A change of lighting suggests that it is later in the day. She then starts to get up and a cut occurs. The third shot reveals her just arriving at the desk of a co-worker and asking a question. The diegetic (narrative) time gap between the first and second shots is likely to be several hours and yet no important action has happened. The dissolve and the juxtaposition of the two shots simply denote that she has been working throughout. The time between the end of the second and the beginning of third shot is probably 2 or 3 s, too trivial to count as a time shift. I call this latter time deletion a *jump shift*.[3] In playing this sequence to students I have found that viewers

agree that the considerably different-sized temporal lacunas between the first and second and between second and third shots do not signal a change of scene.

Similarly, small or large time shifts can occur within what Metz (1974) called a *syntagma* — a scene consisting of short subunits, often single shots, that have no direct relation with one another but that build to make a point. Consider two examples. First, 11 min into *Erin Brockovich* there is a *parallel syntagma* — a series of shots that alternate versions of a repeated theme to make a point. Erin collects newspapers (two shots), circles job ads (four shots), and serially calls potential employers (19 shots). The whole scene takes about 1 min of screen time. Traditional continuity is purposefully violated. For the phone calls, she is alternately dressed in three different blouses, she has three different demeanors for job inquiry, and she calls from both inside her house and from a pay phone, sometimes with and without her baby. Clearly such action takes place in multiple locations and at multiple times perhaps over weeks, but it coheres as a single, distributed event about a character's difficulties finding a job. Moreover, when I have played this sequence to viewers they judge it to be a single scene, often without noticing anything peculiar about it.

Second, almost 30 min into *Ordinary People* there is a party sequence consisting of 18 shots that forms a *bracket syntagma*. Its shots effectively describe the interactions of upper-middle class adults, showing snippets of different conversations on unrelated topics that take place in different rooms of a house among different characters. One can guess that the sequence covers the span of about an hour of diegetic time. Thus, although time cannot be continuous, perhaps not even serially ordered, across the shots they nonetheless cohere as a single scene and viewers judge them to be so.

More than character or time shifts, location shifts can be hard to define. Separate locations are most often delimited by doors (Bordwell & Thompson, 2004; Burch, 1973; see also Radvansky & Copeland, 2006) or other barriers, physical or psychological. Many scenes are actions that take place within their confines, but naturalistic outdoor scenes can be unbounded (Magliano, Miller, & Zwaan, 2001). Moreover, if actors move through a space, even through doors, and the action and content are not broken then the entirety can be considered a single location. Magliano et al. (2001) and Cutting and Iricinschi (in press) have worked through many possibilities and give more examples of what might count as a single location, and what might not. As with jump shifts, which allow short bits of time to be elided out of the scene, small changes in location – from one side of a room to another, from inside a car looking out to outside a car looking in, and even from one end of a telephone call to the other (which may be a world away) – may not matter to the viewer. Psychologically important cinematic devices like eye-line matches, shot/reverse-shot composition, and point of view editing help knit disparate spaces together.[4]

3. Key terms and concepts

Again, a *cut* is a sharp transition between shots, one frame to the next. A *dissolve* is an optical mixture of two shots over a dozen to several dozen frames (assuming 24 frames/s), where the first shot dominates at the beginning of the dissolve, and is gradually replaced until only the second shot remains. A *fade* is like a dissolve although it goes through black between the two shots and is usually about twice as long or longer. A *wipe* is a transition in which a second shot replaces a first along

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[1] McCloud (1993) also presented an impressive analysis of the transitions across panels of comics that are similar to those of Messaris for film. See also Cohn (2013).

[2] Of course, there are occasional exceptions. In *Mission: Impossible II* (2000) the artifices of wearing tight-fitting masks and external throat devices that change voices allow protagonist Ethan Hunt (Tom Cruise) and antagonist Sean Ambrose (Dougray Scott) to impersonate other people. But such examples are rare exceptions.

[3] I distinguish a *jump shift* from a *jump cut*. In a jump cut the camera occupies the same or nearly the same position in two consecutive shots, but the time frame has jumped ahead from the end of the first shot to the beginning of the second. In a jump shift the camera occupies different positions in the two shots, but the same amount of time may have been deleted. The purpose of this second kind of cut is to move the action forward, omitting needless detail about how a character got from one position to the next. Traditionally, a jump cut was thought to violate continuity; a jump shift does not. In fact it seems to promote an intensified continuity (Bordwell, 2006). However, jump cuts seem to have become more and more acceptable, and are quite common in contemporary television.

[4] Eye-line matches across shots knit the line of gaze of one individual to another in conversation. Shot/reverse-shot alternation is the most common form of conversational scene construction, and typically one person is displaced slightly to the right and looks left, while the other person is displaced slightly left and looks right. This construction typically creates eye-line matches. Point-of-view (POV) edits, where a character looks off-screen and the next shot reveals what that character is looking at, are sometimes also called eye-line matches. POV edits seem to mimic the psychological principle of joint attention (see for example Carpenter, Nagell, & Tomasello, 1998), where when the character looks off screen we follow his or her gaze in order to understand what is being looked at.