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Writing from the body: Kinesthetics and entrainment in collaborative screenplay development

ABSTRACT

The predominant industry mode of screenplay development involves writers sitting alone at a computer to produce numerous drafts in periodic consultation with producers, directors and script editors. The exception to this rule is the process of devising screenplays through guided actors' improvisations. However, in the development of my film Beat *(2010), a dialogue between dramatic and choreographic improvisations was established and a process of 'kinesthetic writing' evolved as a result. Script consultant Joan Scheckel employs comparable processes to develop narrative feature films collaboratively. The success of films developed by her demonstrates that, where appropriate, an economic case can be made for the higher investment required of collaborative script development.*

Based on my own film practice, in-depth interviews with Joan Scheckel and scholarship in disciplines ranging from the arts and humanities through cognitive psychology to neuroscience, this article employs the praxical knowledge and inductive theorizing germane to practice-based research to investigate how musicality, movement and dance can be utilized in the collaborative development of narrative screenplays, and proposes that the embodiedness of human understanding evident in processes of entrainment such as kinesthetic empathy and mirroring

KEYWORDS

screenplay
  development
creative process
practice-based research
entrainment
kinesthetic empathy
mirroring

may be harnessed to enliven scriptwriting and function more generally as a modus vivendi.

INTRODUCTION

This article examines approaches to the collaborative development of screen-plays that harness the potential for music, movement and dance to enliven and enrich the act of writing through processes of embodiment and interactional synchrony (entrainment).

It asks first if embodied forms of inter-subjective connection such as kinesthetic empathy, mirroring and rhythmic attunement can be usefully integrated into methods of screenplay development. Second, it proposes that these evolving collaborative processes not only reflect developments in contemporary scholarship related to embodied interaction but also have the potential to refract broader cultural practices.

My investigation here was triggered by experiences during my own practice as a film-maker in devising a hybrid narrative-screen dance, *Beat* (2010), and developed through in-depth interviews with Joan, Scheckel, a US-based script consultant, writer, director, actor and teacher who has been involved in the development of over 365 feature films in her groundbreaking film-making labs.

PROCESSES OF ENTRAINMENT: EMPATHY, KINESTHESIA, THE MIRROR SYSTEM

The relationship between movement, mirroring and empathic engagement has been explored and theorized in various disciplines ranging from the arts and humanities through cognitive psychology to neuroscience. Given that I shall emphasize the centrality to inter-subjective experience of entrainment via the motor-based processes of kinesthetic empathy and the mirror system, I shall first review the salience of these overlapping terms to this article.

Entrainment can be described as 'the interaction and consequent synchronization of two or more rhythmic process or oscillators' (Clayton, Sager and Will 2005: 2). Dutch mathematician Christiaan Huygens formulated the concept in 1665 when he observed that two pendulum clocks placed on a common support would always synchronize within about half an hour. This propensity for separate rhythmic processes to adjust in order to synchronize has been observed not only in inanimate objects, but also in wildlife, in circadian and ultradian rhythms, in endogenous human rhythms and, most pertinent to this article, between human beings as they interact. Entrainment within and between humans can be partially explained by developments in the understanding of brain function as the 'cooperative, synchronized activity of large, distributed ensembles of neurons', much of which is synchronized and oscillatory in nature (Clayton, Sager and Will 2005: 4). This neuronal activity is one of the key bases to 'the timing of sensory-motor coordination' (2005: 4) and may help explain why 'all human performance can be evaluated within a rhythmic framework' (Jones 1976: 340 cited in Clayton, Sager and Will 2005: 3). In the discipline of social psychology, one of the five major propositions of the social entrainment model is that 'the temporal patterns of individuals who are in interaction become mutually entrained to one another' (2005: 10), and there is also considerable evidence from within the social sciences of 'the mutual entrainment of speech and gesture, and

to entrainment between the communicative rhythms of interacting individuals' (2005: 11). Cognitive neuroscientist Marcel Kinsbourne (2005) describes this 'pervasive human propensity to entrain with other people' (2005: 172) as 'bodily interactional synchrony' (2005: 170) and argues that 'rhythmic social entrainment is more innately compelling than reasoned argument in inducing two, or many, to adopt the same point of view' (2005: 172). While this may manifest negatively in terms of social control, there is also evidence 'of a correlation between entrainment and positive affect in communication' (Clayton, Sager and Will 2005: 13).

The processes of entrainment are clearly linked with the concept of empathic engagement. Broadly speaking, empathy with another person comprises a combination of affective response, the cognitive ability to place oneself in another's shoes and the experience of a connective interaction between self and other (Blair 2009: 98–99). Belgian experimental psychologist Albert Michotte, who brought an extensive exploration of empathy to film theory in 1953, emphasizes the experiential aspect of empathy as a psychophysiological process. He describes empathy as what happens 'when we observe what someone else is doing and we ourselves live it in some sense, rather than just understand it at an intellectual level' (Michotte 1953: 209 cited in D'Aloia 2012: 98). Psychological research in the 1960s revealed the relationship between 'mirroring' and empathic engagement, an example of which is Albert Scheflen's 1964 frame-by-frame analysis of a psychotherapy session showing that 'at moments of apparent empathic engagement the pair mirrored each other's postural shifts' (Meekums 2012: 57). Empathic mirroring is widely utilized in actor training and rehearsals, the benefits of which have also been explored in dance movement psychotherapy. Bonnie Meekums, for example, triggers insights in her clients through empathic mirroring and witnessing (2012: 62).

The affective turn in arts and humanities scholarship has focused attention on the embodied nature of empathy over previous conceptions of emotional identification (Reynolds 2012b: 126, 'Dance's body'). This has included a growth of interest in the processes and implications of kinesthetic empathy in both spectatorship and broader cultural practices. Kinesthesia, a term coined by Charles Bastion in 1880, is related to proprioception in that both describe our sense of bodily position and movement arising from internal stimuli. However, whereas proprioception is stimulated by nerves and the semi-circular canals of the inner ear, kinesthesia is a sense stimulated by bodily movements and tensions 'mediated by receptors located in muscles, tendons, and joints' (http://www.merriam-webster.com/dictionary/kinesthesia). The relationship between kinesthesia and cinema can be traced back to the earliest films, many of which featured dancers, circus performers, athletes and acrobats. In fact, the compulsion to record the dynamism of movement was key to the development of moving image technology in the late nineteenth century. The potential for a mobile camera to intensify the kinetic experience was also exploited in early 'kinesthetic films' (also known as 'phantom rides'), in which a camera was mounted on a moving vehicle to provide a dynamic spectacle for audiences.

Related to kinetics and kinesthesia, theories of kinesthetic *empathy* assert that viewers experience muscular empathy with a performer's movements and that this, in turn, evokes 'emotional sympathy or response' (Anderson [1998] 2006). Kinesthetic empathy is thus intermodal as it is triggered by the sense of sight. As Dee Reynolds explains, 'this intermodality means that a

movement or action can be experienced, for instance, both as a visual image and as a movement sensation', and this becomes empathic 'when perception of another's action is also experienced as one's own movement sensation' (Reynolds 2012b: 124, 'Dance's body').

Primarily elaborated in dance analysis, kinesthetic empathy demonstrates that the aesthetic appreciation of dance and other choreographed movement, such as fight sequences in martial arts films, does not only occur mentally because the 'body itself, through empathic physical sensation, participates in the process of understanding the viewed movement' (Anderson [1998] 2006). Performers, arts scholars, film-makers and neuroscientists associated with the AHRC-funded Watching Dance project have noted not only that kinesthetic empathy is crucial to the appreciation of aesthetic movement, but that it is also linked to pedestrian (i.e. everyday) movement due to the embodiedness of human understanding. In fact, the way human perception functions means 'there is no moment of non-kinesthetic empathy in our apprehension of creative or even everyday objects and bodies in the world' (Jones 2012: 12).

In the past ten to fifteen years, kinesthetic empathy has also become increasingly relevant to the discipline of cognitive neuroscience due to a rapid increase in research related to social perception and social cognition. As neuropsychologist Marie-Hélène Grosbras (2011) explains, this has triggered a shift away from 'a neuroscience of the subject ... towards a neuroscience of intersubjectivity -- where a lot of effort is directed at trying to identify what brain processes and networks allow us to perceive, understand and empathize with others'. Motor theories of cognition are also increasingly emphasized in cognitive science to explain such empathic connection; according to the motor resonance theory, 'a corresponding representation of a movement is activated while observing another person's movement, implemented perhaps by the mirror neuron system' (Rabinowitch, Cross and Burnard 2012: 113).

The discovery of mirror neurons by Italian neurophysiologist Giocomo Rizzolati in 1992 has lent weight to theories of kinesthetic empathy. Observed first in macaque monkeys, mirror neurons fire in the same region of the brain both when the monkey performs and observes an intentional action such as grasping a food item (see di Pellegrino et al. 1992: 176–80; Gallese et al. 1996: 593–609). Though still controversial, there is increasing evidence that mirror neurons fire in the human brain in a similar fashion (see Rizzolatti and Arbib 1998: 188–94; Rizzolatti and Sinigaglia 2010: 264–74; Gallese 2008: 769–81). By 2010, 'a meta-analysis of 139 imaging studies confirmed mirroring activity in parts of the human brain where, in monkeys, mirror neurons are known to reside' (Ehrenfeld 2011). The significance of this is that mirror neuron mechanisms lead to shared affective states, because, according to neuroscientist Vittorio Gallese (2008: 771), the observer's embodied simulation induces a 'body state shared by observer and observed'. Similarly, the significance of the mirror neuron system for Rizolatti and Corrado Sinigaglia is the role such motor-based understanding plays in inter-subjective communication.

Drawing from cognitive science, the term inter-subjectivity can be conceptualized as a continuum that extends 'from fragmented individual subjectivity towards highly coordinated group intersubjectivity', which involves 'a sharing of intentions, emotions and certain cognitive processes amongst subjects' (Rabinowitch, Cross and Burnard 2012: 112). Important to this formulation is the notion that, while inter-subjectivity is 'characterized by a better understanding of and identification with one another' (2012: 112), it does not preclude or negate individual subjectivity. This observation coheres with

evidence from a 2010 study demonstrating that the mirror neuron system 'includes a mechanism that helps the brain record the difference between seeing and acting', because some neurons fire more during action and others more during observation (Ehrenfeld 2011).

While inter-subjective connection via processes of entrainment rooted in motor action (i.e., kinesthetic empathy and the mirror system) have far-reaching implications, in the context of artistic enquiry the significance of this phenomenon to me lies primarily in its potential to activate the imagination. As Meekums (2012: 60) notes, 'once we have a physical reaction ... we then do something with this; we imbue it with meanings'. This is precisely what occurred in the development of *Beat*.

KINESTHETIC EMPATHY AND MIRRORING IN THE MAKING OF *BEAT*

My short film *Beat* (2010) is a hybrid narrative-screen dance, which, through the eyes of a clear-sighted young boy, explores the challenges of bringing individuals into productive interaction without quashing their differences. In order to develop the plot points and characterizations alongside the bodily movement and dance elements of the piece, a workshopping process evolved, in which choreographic discoveries flowed from dramatic improvisations and vice versa. All workshop activities were shot on video, which I then viewed in the process of writing the script and character descriptions. During this screenwriting stage, I became conscious of favouring the dance/movement footage over the dramatic improvisations as a way to understand the characters' personality traits and to dream up plot-related actions. Though it is widely understood that kinesthetic empathy with a dancer's moving body is integral to audience appreciation of dance on stage and screen, in the development of *Beat*, kinesthetic empathy between myself (as writer/director) and the performers became central to the development of ideas and the writing of the screenplay. In order to position this process, I shall first summarize the research intentions of the piece, the questions that arose from this that required addressing in the development process and the activities that preceded the embodied approach to writing discovered in the workshop setting.

There were two interrelated questions that I was exploring in *Beat*. The first asked how a dialogic mode of human interaction might be expressed in film through non-linguistic interaction between performers. Initially elaborated by Mikhail Bakhtin as a metalinguistic term, dialogism is defined as 'the necessary relation of any utterance to other utterances' (Bakhtin cited in Stam 1992: 203). Because, for Bakhtin, an utterance 'can refer to any "complex of signs" ', the term has been widely applied, and even in Bakhtin's own writings, the word 'progressively accretes meanings and connotations' (Stam 1992: 203). The relevance of dialogism to conceptions of human interaction is Bakhtin's recognition that 'opposition pure and simple necessarily leads to chaos and cannot serve as the basis of a system' and that 'true differentiation presupposes a simultaneous resemblance and difference' (Holquist 2002: 26). Interaction in a dialogic mode is thus characterized by asking questions and receiving responses without relinquishing one's own 'unity and open totality' (Willemen 1994: 214). In the development and production of *Beat*, I wanted to explore how such interaction may be expressed (in microcosm) through the languages of narrative, music, dance, cinematography and *mise-en-scène*. Prior to making *Beat*, my film-making had involved writing a fully developed screenplay (at least eight drafts) before working with actors to interpret it, usually in a very compressed

rehearsal period determined by financial constraints. Having experienced the traditional process of writing in a solitary environment, my second research question asked how a more collaborative form of film development might open out possibilities as a result of interacting with the creative energies of others, in this case performers and a choreographer.

In order to trigger the collaborative development process, I wrote the following synopsis:

> The action takes place entirely in a domestic setting in which four flat-mates and a young boy interact non-verbally. The plotline that motivates their movement within the space revolves around the preparation of food – at first individual snacks and, to conclude the narrative, a jointly prepared meal. The adult characters are introduced as separate entities wearing headphones, each listening to a distinct musical genre: flamenco, acid jazz, hip-hop and rock. The goal of the child (the central protagonist) is to encourage the adults to cohere as a group. As he triggers connections between the characters, the music they listen to individually begins to merge, as does the style of dance associated with each of them. Reflecting the challenges of bringing differences into communion, this does not occur harmoniously at first. As events progress, the musical and choreographic connections develop into a more cohesive dialogue until, in the dénouement, the four distinct musical genres come together to form a strangely coherent piece of music and dance in which each generic influence remains discernible.

This was the sum total of predetermined ideas prior to the workshopping process, meaning there was much scope for development in collaboration with the performers and choreographer. Questions that needed to be explored in the workshops included the following: Who are these characters and how did they come to live in the same space? What are some of their differences and similarities? How do some of these differences generate conflict and similarities generate connection? How will these dynamics play out in both plot-related action and dance? Who is more open to cooperative interaction, and for those who are resistant, why that might be? What devices might the child employ to trigger connections between the characters? With whom does he connect most easily? In what permutations of character combination will the connections occur and how will they progress until everyone is in sync with each other? What sort of food does each character prefer and how does this add to their characterization? How will we deal with the temporal elisions necessary to shift from the making of snacks to the preparation of a full meal within 15 minutes of screen time? How will the choreographic elements parallel or complement the action in the narrative line? How will we segue from pedestrian movement to dance and back to pedestrian movement for the narrative conclusion? How will the camera interact with each character and each grouping of characters?

In order for the performers to have initial input into their characters, I asked them to name their characters and answer a series of questions about them including where they are from, what they do and whether or not they enjoy that, where they were prior to joining the household, how they feel about the current living situation, who they might get on with best in the household, what they dream about, what they enjoy, what disappoints them and what is important to them in home life. Though I encouraged some minor adjustments with one performer, I worked extensively with all their

input, comparing notes to discover potential connections and conflicts from their own perception of their characters. In order to bond as a group and have an experience of cooperation, I then arranged a 'potluck' dinner, whereby the performers were asked to bring food they thought their character would choose, and from that we concocted a meal together. More was gleaned from this in terms of the characters' culinary preferences and engagement with aspects of domesticity as well as the affinities and dissonances between the performers and their evolving characters.

The first movement workshop, designed to develop conflict between the characters, took place with choreographer Shona McCullagh, appointed as the film's consultant because of her experience in making narrative dance films (including the award-winners *Break* [2007], *Fly* [2002] and *Hurtle* [1998]). An insight revealed to me by McCullagh was the way in which words can be embodied through movement-work and dance. From my initial treatment and character notes, she chose a single word associated with each charac- ter, and used these to trigger preliminary choreographic work by asking the performers to improvise to their own word in a way that suited them, whether that be around the meaning or the sound of the word. McCullagh then asked each performer to write the word 'conflict' next to the words associated with the other characters, and, in a series of guided choreographic improvisations, placed various groupings of performers into proximity in order to explore these potential conflicts, suggesting adjustments to tease out possibilities that did not immediately occur to them. As she brought the performers physi- cally closer and closer, new character dynamics became evident due to the performers' input, such as the centrality of the young mother character to the group. She ended up as a calm force in the middle of the formation as others flitted, strutted and grooved around her. This spontaneous movement-work later influenced not only her choreography but also her pedestrian movement and characterization, as she shifted from being a dreamy person whose rever- ies render her somewhat absent into someone of quiet but potent strength and a grounded sensibility. Apart from engaging with McCullagh's experience in devising narrative dance films, my role in this workshop, along with that of the film's choreographer, Karen Barbour, was to record the exercises on video in such a way as to develop a mutually empathic relationship between the performers and the mobile camera.

Drawing inspiration from the performers' conception of their own char- acters, the dynamics of our shared dinner and the revelations from the initial choreographic improvisations, I devised a series of dramatic improvisations to explore conflicts and connections between the characters. Barbour and I had decided in advance that the choreographic work in the afternoons would flow from the dramatic improvisations undertaken in the mornings. However, this very quickly became a two-way conversation as I learned as much about the characters from their dance as I did from their actions and dialogue in the improvisations. It was through this experience that I became aware of my empathic responses to dance, which I am now analysing through the concept of kinesthetic empathy. Another insight revealed to me through the choreographic work was a sense of how the evolving characters occupy physical space when interacting, which informed how I would stage the improvisations and, later, block the shots to express these spatial dynamics in both the dance and pedestrian movement sequences.

Reflecting on the workshop activities, it can be said that the imaginative processes activated in me through kinesthetic empathy with the performers

movements were more akin to the inter-subjectivity engendered by live performance than that elicited by the interaction between performance and cinematic language in a film-viewing experience. This is because, although all workshop activities were shot on video, I chose not to deal with the technicalities of camera operation all of the time as I also wanted to experience a more direct, unmediated engagement with the performers while co-devising the film. Consequently, the workshop footage shot by students of dance and film added another layer of co-authorship during the collaborative development process. Though one camera was set up as a wide shot to capture the entirety of each exercise, I also encouraged the dance student operating the second camera (Kirsty Russell) to move more freely in response to the performers, even if that did result in her entering the other camera's wide shot from time to time. Because people 'experience different aesthetic sensations to the same movement based on their own unique history' (Anderson [1998] 2006), the physical memory Russell has as a dancer meant that her kinesthetic response to the dance work she filmed resulted in a different kind of shared embodiedness with the performers than would have been the case had I (a non-dancer) operated the camera, and there were aspects of her agile camera work that influenced my shot planning for the film.

When watching the workshop footage during the process of writing a full screenplay and substantial character descriptions, I engaged with the performers' work in a manner distinct from the engagement established in the studio. Because the initial workshopping was designed to develop ideas rather than present to an audience, the performers' work was exploratory rather than *explicitly* performative. Matthew Reason's distinction between kinesthetic empathy in the contexts of the everyday and of performance is useful for understanding this:

> When we as an audience watch performers – whether live or on screen, whether in theatre, dance or on film – we are watching other people who are explicitly presenting themselves for us to watch. It is an open and clear invitation for the audience to watch them – watch them act or dance or move or simply be – that is different to the way we might look at people in everyday life. There is a to-be-looked-at-ness of the *explicit performance* that is particular and worth considering within the context of kinesthetic empathy.
>
> (Reason 2012: 139)

Although the dramatic and choreographic improvisations in the workshop process cannot be described as 'everyday life', the absence of an audience meant they were not *explicitly* performative and I did not judge them in that way. However, when in private and viewing the work mediated by the camera, the quality of 'to-be-looked-at-ness' appeared to increase, giving me a different kind of access to the performers that enhanced both my aesthetic appreciation of their work as well as my kinesthetic response to it.

Another surprise during the screenwriting stage of developing *Beat* was, as mentioned above, my increasing preference for viewing the dance footage as a means to interpret characters and conjure up further action that would be authentic to them in the narrative line. This may be partly due to the fact that, having devised and run the dramatic improvisations myself, I was much clearer about what they had already revealed to me and I had written notes to record that during the workshopping process. However, viewing and interpreting the

dance footage made me aware of the degree to which my ideas were forming through kinesthetic empathy with mediated, aestheticized movement. I shall exemplify this by tracing the development of the character 'Hope', described very minimally in the original treatment as someone who 'flits about to acid jazz'. Because the performer playing this character, Alex Hitchmough, was accustomed to dancing with large movements connected in a fluid fashion, she was at first encouraged to develop more awkward movement phrases with a staccato quality (see extract 1).[1] Subsequently, Hitchmough's own backstory for her character included parental conflict and lethargy as well as the absence of financial support, meaning Hope holds down two jobs while studying full-time. This story began to influence further development of the character's movement and dance phrases, which included gestures such as fussing over her finger nails, tidying her hair, straightening her clothes, putting things in order, protecting her heart and walking back and forth incessantly (see blonde-haired performer in extract 2).[2] Viewing workshop footage of the dance sequences containing these movements triggered my writing of a character description that included the following:

> HOPE (22) – a perfectionist who needs order and control in her life. Hope is conscientious about everything, takes on too much and propels herself through a massive array of activities and obligations with extraordinary drive. Hope is so busy-busy-busy, she feels brittle and unreachable to those around her much of the time. She's actually a friendly, caring person and her emotions burble fairly close to the surface. The problem for Hope is that, if she stops and thinks, she might just lose her grip. And that just wouldn't do.

These traits manifest as action in the screenplay in a number of ways, including obsessive tidying and cleaning to the point of intruding on the space of others, a soft spot for the child that induces several moments of affectionate connection with him and an inability to pause and be in the present with the other flatmates, meaning Hope is the last character to connect and synchronize with the group. See extract 3, which introduces Hope, for evidence of how the character description and some of this scripted action actually materialize in the finished film.[3]

The way I learned about the characters through kinesthetic empathy with their dance work and wrote a script from this can, in retrospect, be described as a process of 'kinesthetic writing', which, by activating the mirror system and thus unifying action production and action observation, facilitated the understanding of the actions of others 'from the inside' (Rizzolatti and Sinigaglia 2010: 264). In doing so, my experience of this process supports Reynolds and Reason's (2012: 320) assertion that 'movement, physicality and the non-verbal have the potential to articulate levels of difference and inter-subjective connection in ways that intersect with but are not always reducible to language', and that the affective impact of kinesthetic empathy in an artistic context has the 'potential to change modes of perception and ways of knowing' (Reynolds 2012a: 88, 'Introduction to part II'). Given that synergies always exist between creative process and creative outcome, it is not surprising that the dialogic mode of human interaction expressed in *Beat* and the kinesthetic mode of writing that characterized the development of the film are synergistic for being rooted in embodied inter-subjectivity. Also salient to the process is Meekums' (2012: 62) suggestion that the value of 'kinesthetic

1. Extract 1 is viewable at https://vimeo.com/55283872 Password: JMP.

2. Extract 2 is viewable at https://vimeo.com/55283871 Password: JMP.

3. Extract 3 is viewable at https://vimeo.com/55283873 Password: JMP.

empathy, as mutual incorporation' may 'help to explain why some creative processes seem so much easier when they are collaborative'.

Notwithstanding my own discoveries in the development of *Beat*, it should be noted that the idea of kinesthetic collaboration is not new to cinema. For example, directors of naturalistic cinema, such as John Cassavetes, encourage kinesthetic awareness and rhythmic attunement between actors during the filming process by bringing the camera to them rather than bringing the actors to the camera and, in doing so, achieve a heightened sense of immediacy and spontaneity (Dixon 2012). Kinesthetic collaboration between performers is also integral to the process of devising and performing dance for stage and screen. Although my experience of 'writing from the body' in the development of *Beat* emerged because the film includes dance sequences – and we can see how choreographic practice has influenced filmic structure and style in the experimental cinema of, for example, Maya Deren – it seemed to me that the application of such embodied practices to contemporary narrative screenplay development had the potential to constitute an advance worthy of further consideration. I thus turned to the methods employed by Joan Scheckel, whose emphasis on bodily engagement closely parallels my approach to the making of *Beat*. I explored her innovative work through a series of interviews.

COLLABORATIVE FEATURE FILM DEVELOPMENT: JOAN SCHECKEL

Beyond the practice of devising screenplays from actors' improvisations, the use of embodiment as a collaborative script development technique is unusual in narrative film-making. Scheckel, however, runs film-making labs in which music and movement are distinctive features of her method for developing feature-length screenplays. Though she works primarily with directors, more pertinent to this article is the way in which she also involves writers, performers, producers, cast and crew. Scheckel (31 May 2012b interview) works with film-makers at all stages of screenplay development, though she prefers as much time as possible prior to production so that 'the work can take hold and be digested and processed by the team'. The development time frame may be between one and several years, as with *Whale Rider* (Niki Caro, 2003), *Little Miss Sunshine* (Jonathan Dayton and Valerie Faris, 2006) and *Beginners* (Mike Mills, 2010), or between several weeks and months, as with *Snow White and the Huntsman* (Rupert Sanders, 2012) and *The Future* (Miranda July, 2011). Whatever stage the script is at, these screenwriting labs take place in a 4000-foot studio, which enables a great deal of movement, and everyone involved participates in the process of physicalizing aspects of the evolving film.

In order to appreciate Scheckel's use of embodiment as a film development technique, it is first necessary to familiarize with her approach to cinematic structure and theme. Because differences of opinion and confusion about the definition of a 'theme' are rife, Scheckel has coined her own term to label the thematic intention of a film. Describing this as the 'nugget', the word is designed to bring together meaning, structure, action and feeling, which are often unproductively separated when describing the theme of a film in purely intellectual terms. Scheckel (31 May 2012b interview) elaborates:

> The theme must be felt. It's not a metaphor. It's not what the characters are talking about. It's what they are doing and feeling structurally in the movie. So, the clearer we can get about that thematic intention, the more precise and illuminating we can become with the structural

actions of the movie because every theme has a structure embedded in it, and this needs to be felt through all levels of the mise-en-scène.

It is therefore extremely important to Scheckel that the film-makers she works with identify the thematic intention or 'nugget' of the film in a very specific manner, which can be a surprisingly difficult task. On identifying and developing a film around this nugget, Scheckel (31 May 2012b interview) explains:

> There's a lot of craft that goes into that. It has several moving parts – there's what the story is saying at its root – the nugget. There's what the filmmaker's relationship is to that root and how he or she wants to express it through cinema. This nugget must be felt, and one of the core ways in which it is felt is through the structural action of the screenplay. So you must at least think about this while writing a screenplay, even if you decide to erase all action at the end, which is perfectly fine.

Providing an alternative to the emphasis on the 'hero's journey' in contemporary Hollywood cinema, Scheckel conceives of script structure in musical terms. Hence, instead of a three-act structure following the model of action-obstacle-conflict that builds in intensity, climaxes and then resolves, she thinks a screenplay can be more surprising, subtle and unique if it follows the more flowing form of music. She thus prefers to think of screenplay structure in terms of 'movements'. Says Scheckel (31 May 2012b interview): 'Whereas cinema is a very young art form, music has evolved to allow for a multiplicity of dynamic rhythmic and tonal forms that can be used to express themes, and I believe this is also possible in cinema.' Though Scheckel sees a place for screenwriting that responds to Christopher Vogler's take on Joseph Campbell's 'hero's journey', her own script development process is designed to include ideas that will take shape through alternative structures. Her own approach to developing the 'journey' of a film relates very specifically to the thematic intention or 'nugget' identified by the film-maker. Though she thinks of a film in terms of five musical beats, for the sake of clarity in our interview, Scheckel summarizes the key moments of this journey in simple terms through the following questions:

> What are the actions and the feelings at the very beginning of the movie, when we meet the characters? What are the actions and the feelings in the crisis? What are the actions and feelings at the end of the movie? How are the beginning, the crisis and the end speaking about – or in relationship to – the nugget? You have to keep going back to the source. It doesn't work if you just think, 'oh this action will be good here and that image will be good there', because it lacks a root. And if you don't have a root in a movie, the audience is going to complain because ultimately that's what they're there to connect with.
>
> (31 May 2012b interview)

For Scheckel (31 May 2012b interview), the 'crisis' in a screenplay does not necessarily describe a high-octane or hysterical scene in which 'everyone's trying to get what they want but don't have and everything burns down or blows up or whatever'. She explains:

> If you look at the etymology of the word 'crisis' you find it comes from 'birth'. So just by doing that, by coming in to the truth of what that

word means, I'm invited to be more accurate, deeper and more fluid with what the crisis of my screenplay might be.

(Scheckel 31 May 2012b interview)

As a structural point in the screenplay, the crisis does not therefore need to be the moment of highest conflict:

It's the moment of birth, when the most significant feelings are born. And then we can ask, what's the birth? What's being born in this relationship? What new feeling is coming up now which hasn't come up yet? The crisis can happen over a whole sequence – it doesn't have to be one scene.

(Scheckel 26 May 2012a interview)

The careful attention to words evident in Scheckel's investigation of the term 'crisis' is another characteristic of her approach. She is concerned about the distrust we may have in words and sees this as a response to what happens when we neither say what we mean nor listen properly. She is therefore very interested in 'reconnecting the word to the feeling because all words were born of feeling', and names her favourite book as the *Dictionary of Word Origins* for enabling her 'to go back to what was the primal impulse behind the word' (Scheckel 31 May 2012b interview).

In terms of Scheckel's method, once the thematic intention or nugget has been identified and put into words by the film-maker, the process of embodying that intention can begin. To exemplify this for me, Scheckel recounts how Rupert Sanders worked out that the 'nugget' that was central to the structure of his film *Snow White and the Huntsman* was to 'take heart'. Scheckel demonstrated to me how she might initially work with these words in her lab setting. Working first with the verb 'take', she stood up and began to physicalize the verb with a series of movements, reaching into the air as if to take it. She explains to me afterwards what she was doing:

With 'take' I was investigating the rhythmic property of that verb through physical improvisation. If we only go by our emotional reaction to the verb, creative differences can arise because everyone's reactions may be different. Yet 'take' is a verb that has a rhythmic essence to it that existed before I was born and will exist after I die, and it's my job as a dramatic artist to get into the essence of that verb – not to pass through my reaction, not to play through my stereotypes. I have to do a lot of investigation in order to come into coherence with the verb itself.

(Scheckel 31 May 2012b interview)

Following this she embodied the word 'heart' by becoming very still and placing her hands on her chest, which I interpreted as being much more inward focused. Scheckel (31 May 2012b interview) explains:

I did have to become still and ground my feet and go inward, but I was actually listening for my heartbeat. I was getting very practical with the organ itself. I'm asking myself if I can actually feel my heart beating. That's important because we forget. That's what embodiment means to me. I'm not imagining something. I'm actually feeling my heart beat – if I can.

The dynamics of these embodied responses (e.g., in terms of movement, stasis, tone and feeling) can then inform the writing and visualization process involved in developing the script and, following that, the film itself – in terms of action, pacing, characterization, motion, *mise-en-scène* and cinematography. Scheckel (31 May 2012b interview) explains that this physical investigation of words is not an intellectual exercise: 'By embodying the actions and the feelings – basically getting up and doing it – we're just doing what the destination of the screenplay is. Everybody's going to have to get up and do it – the crew, the producers, the actors'. Relating specifically to the development of character, writer Susan Pointon recalls how at one of Scheckel's film-making labs in which she was developing a film about a dancer, she embodied her imagined characters by literally 'dancing' them. Says Pointon (19 May 2012 e-mail interview), 'It worked a treat – literally getting in to the bodies of the characters – getting under their skins and moving like them.'

While Scheckel encourages film-makers themselves to embody characters and thematic intentions kinesthetically, kinesthetic *empathy* can be seen to come into play when actors are involved and the film-makers observe (and then perhaps mirror) their movements. Attesting to the fruitfulness of this technique, Scheckel has found that the actors' movement-work often reveals something new about the essence of the film to the film-makers, and in a way that enriches their understanding. There is a neurological foundation to this because the mirror systems of two people interacting 'can move in tandem … with one person's mirror system reflecting changes in the other' (Ehrenfeld 2011).

Though Scheckel has formed guidelines for her approach to script development, she emphasizes that because each person attending her lab is different, her process is responsive to that. For example, at the time of our first interview she was developing a script with Jake Scott, who also happens to be a talented visual artist. Drawing inspiration from, among other things, the setting of the film (the Himalayas), aspects of the screenplay evolved through extensive movement-work together, the experience of which was then rendered by Scott through charcoal drawings. Scheckel showed me drawings, for example, of faces and bodies that develop character complexities, drawings that include the location in relation to the characters and drawings resulting from movement-work designed to develop script structure and Scott's growing understanding of a female character in the screenplay, which was achieved by physicalizing the womb. From observing and discussing these drawings, ideas were further investigated through more movement and music, with the conversation between the art forms continuing as a way to inspire the development of the screenplay at all levels. When working in this way, Scheckel emphasizes the importance of not fixating on single moments in the process (though such moments might fruitfully appear in the film) but to keep in mind the overall structure in relation to the thematic intention of the film story.

Complementing her conception of script structure in musical terms, Scheckel also taps into the musicality of her participants to develop the journey of the film. One way she does this is to ask film-makers to select three pieces of music, one with the feelings and rhythm of the beginning of the film, one with the feelings and rhythm of the crisis and one with the feelings and rhythm of the end. Scheckel (31 May 2012b interview) explains the process:

We might start by spending time lying on the floor with the music cranked high. We just listen to it. We don't do anything – just take it in. And then we'll get up and move to it, embodying the rhythmic pulse

of that song. Then we look at the scene and how the scene is carrying that rhythm. Is it short? Is it long? Are there multiple voices? What's the syncopation? Is it flowing? Is it staccato? Is it legato? Is it Thelonius Monk or is it Radiohead? What's the rhythmic structure and how is the scene reflecting that?

This attention to individual scenes is also broadened out into the overall structure to consider the length of all the scenes and characters' dialogue, as well as where and how the script suggests quick cutting or a slower rhythm.

Following their collaboration with Scheckel, film-makers Jonathan Dayton and Valerie Faris continue to use music to connect with the films they develop together. Dayton explains that when they find a song that makes them say, 'That's it! That's what we're going for!', then they can be certain that they are 'seeing the same film' and can pass that on to all their collaborators so that they can 'connect and know that there's a certain goal' (Guest DJ Project). Faris elaborates:

> It's not like we'd ever use the song in the finished movie, but it's such a great way to communicate without words so it all starts with the two of us: if we agree on the feeling in a song, then it's like our non-verbal road map of what the movie is.
>
> (Guest DJ Project)

For Scheckel (31 May 2012b interview), using music in this way is 'all about exploring the rhythmic essence of the film and its ability to talk about the theme non-verbally'. This emphasis on the rhythmic structure of a screenplay is, for Scheckel, based on the fact that film, like music, is a rhythmic medium first. For her, centralizing the rhythmic qualities of the medium during the script development stage may also provide the key to 'elevating our art form and releasing it into something we can't even imagine yet' (31 May 2012b interview).

INVESTING IN COLLABORATIVE SCREENPLAY DEVELOPMENT

Because collaborative film development techniques involve a number of people, there would seem to be financial implications in advocating such an approach. In order to keep development costs low, the predominant industry mode of screenplay development involves writers sitting alone at a computer to produce numerous drafts of a script in periodic consultation with producers, directors and script editors. The most common (albeit unlikely) exception to this rule is the process of devising screenplays through guided actors' improvisations, as in the work of Mike Leigh. However, as the case studies here suggest, there are alternatives to both of these methods that have the potential to open out new creative possibilities in both film-making processes and outcomes. One benefit of the attention given to rhythmic structure in these techniques is that it can release the editor into more nuanced work in post-production than is possible when forced to 'fix' problems with rhythm and pacing presented in the footage. Furthermore, higher investment in these development techniques, especially when they involve as many of the film-making team as possible, results in a shared and embodied understanding of the film, which, in turn, enhances the likelihood of the participants working in sync together towards a shared creative outcome. This, in turn, has a positive impact on the budget down the line as it reduces the need

for re-shoots, which are notoriously expensive. As Scheckel (26 May 2012a interview) explains, the cost of (even lengthy) collaborative script development is 'never going to be as high as even one day of re-shoots on a typical Hollywood movie'. Therefore, increasing the development budget makes better financial sense than the prevailing industry model. Statistics relating to Scheckel's work prove the point: she has contributed to the development of 70 completed features, 68 of which went on to be released and have subsequently earned 493 award nominations, 258 awards and over US$880 million. In fact, the four top earners (*Snow White and the Huntsman, Beginners, Little Miss Sunshine* and *Whale Rider*) had no financing prior to Scheckel's involvement and, having engaged her full range of support (film-making labs, script doctoring, directing prep, and workshops), have achieved 191 award nominations and 101 awards (including 3 Oscars) and grossed over US$537 million (Scheckel 5 September 2012c interview).

FROM CREATIVE PROCESS TO MODUS VIVENDI

There are clearly synergies and distinctions between the process that evolved in the development of *Beat* and Scheckel's approach to developing feature films: both are collaborative, interdisciplinary methods that include the creative input of actors; in both cases words are used to trigger the physicalization of either theme or character; both processes harness the potential for movement-work to develop narrative, rhythmic structures, character and cinematic imagery; both tap into the potential for kinesthetic empathy between the film-maker and performers to reveal non-verbalized insights; and, in both cases, the creative energy generated by improvisation is harnessed. However, where my own process involved filming the workshop activities for me to view afterwards in a 'private' act of scriptwriting, Scheckel may take photographs and film the spontaneous investigations to view *with* her participants as a way to develop anything from scripting and blocking through production design to shot design. For her, this is because 'the rhythm of an action is translatable to any level of the mise-en-scène' (Scheckel 5 September 2012c interview), and having participants view workshop footage can assist that process of translation. Additionally, while we both focus on the potential for processes of embodiment to experience and communicate creatively, Scheckel takes this further by having film-makers themselves physicalize aspects of the film.

Central to all of these methods of creative collaboration is a process of rhythmic attunement via entrainment, both between the participants themselves and between the participants and an imagined creative outcome that becomes experienced through processes of embodiment. As a highly sensory art form, film is especially ripe for such embodied forms of creative development. Furthermore, because film is experienced in an embodied way by spectators, the physicalization of ideas and character through spontaneous movement-work in the development stage also connects with the proposed audience in an act of entrainment that is both imagined (the audience does not yet exist) and real (by being embodied). Such a proposition is supported by the research of those cognitive psychologists who argue that the act of expectation (as well as perception and attention) is itself a rhythmic process 'subject to entrainment' (Clayton, Sager and Will 2005: 14). In fact, the power of a previously embodied and then imagined creative act to affect neuronal activity was amply demonstrated in an experiment undertaken by neuroscientist Alvaro Pascual-Leone in 1995, in which a group of subjects who had not

previously played the piano learned a five-finger piano exercise and, when asked to merely imagine they were playing that piano exercise, showed almost identical changes to their brain scans as those playing the same exercise (see Greenfield 2011: 54–55).

Processes of entrainment via kinesthetic empathy, mirroring and other forms of embodied interaction also challenge traditional western philosophies of thought based on the splitting of mind and body and of self and other. In this post-Cartesian framework, such conceptions of inter-subjective communication can be drawn upon and applied to a range of practices, from psychotherapy and the treatment of developmental disorders (see, for example, Meekums 2012 and Shaughnessy 2012) through cross-cultural communication to the methods of creative collaboration discussed here. In the creative sphere, such processes are not only relevant to creative outcomes, but they can also develop the participants in a number of ways. For example, when working with actors for the purpose of writing a screenplay, film-makers are also developing their own identity through bodily interactional synchrony, because, when watching actors, one 'becomes aware of what one's body already is: something modeled on others mimetically' (Wilshire 1982: 25), and this helps one 'complete and extend … kinesthetic self-understanding' (McConachie 1993: 28). Furthermore, because 'identity is predicated on each … experience of interacting in a different connected sequence with different people' (Greenfield 2011: 80), the collaborative creative act is constitutive of identity in a manner quite distinct from working alone. Finally, increased awareness and broader application of embodied forms of non-verbal interaction have the potential to engender a modus vivendi inherently geared towards the avoidance and resolution of unnecessary conflict due to the empathic connection and shared subjectivity that results from mutual entrainment. In this way, the collaborative creative work discussed here can function as an exemplar for human interaction more generally.

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SUGGESTED CITATION

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