DELORES V. MULLINGS

# **Temporary Mothering**

## Grieving the Loss of Foster Children When They Leave

This article discusses experiences of grief and loss I experienced as an African-Canadian woman and foster mother. Many child welfare agencies implement policies, programs and services to support foster children through difficult transitions. In contrast, there is a dearth of services for foster mothers who especially need the support when dealing with foster children's grief while in care and more acutely the experiences of grief when children leave the foster home. This grief and loss is exacerbated by the intimate interactions that agency staff encourages between foster children and foster mothers. The article addresses this gap and demonstrates ways in which agency staff continually fail to support foster mothers when they experience grief and loss in relation to foster children.

Severed relationships, such as separation and divorce, can trigger painful emotions. Many child welfare agencies implement policies, programs and services designed to support foster children when they go through difficult transitions in their home lives, transitions that mean changes in intimate relationships with family and friends. In contrast, there is a dearth of such services for foster mothers, who need support when dealing with foster children's grief while in care and, more acutely, who need support as they experience their own grief when children leave their foster home. Yet there is an overwhelming amount of literature discussing (1) the increasing need for foster parents (Dozier and Lindhiem; Miedema; Rindfleisch and Bean; Swartz; MacGregor et al.; Coakley et al.; Critelli); (2) the reasons foster homes continue to decrease (Rindfleisch and Bean; Swartz; MacGregor et al.; Critelli; Brown and Campbell; Butler and Marian; Wozniak); and (3) suitable characteristics of foster parents (Brown and Calder 741). Where research exists, much of the focus is on foster parent

#### DELORES V. MULLINGS

retention and most of the research about foster care is based on a white, heterosexual, two-parent family context (Firth; Gil; Haight et al.; Rhode, Orme and Buehler; Marcellus). While there is an increasing amount of literature about African- and Latino-American foster parents (Swartz; Critelli; Denby and Rindfleisch), there is a decided gap in research about foster mothering generally and African-Canadian foster mothering in particular.

I feel sick again today From the somersaults that won't stop I have fallen and can't get up Help me breathe, someone...anyone The world threatens to destroy our family But I have no power to stop it She is not mine I'm only a foster parent A disposable mother So I have no claim to fame I have to watch a piece of my heart walk out of my life One more time ... AGAIN

Ah time fi ban mi bellie and bawl

This article demonstrates and explores the grief and loss I experienced as an African-Canadian single woman and foster mother-the grief I felt while living with foster children and the loss I suffered at their departure. While the cultural and racial aspects of grief and loss remain obscure in this article, it must be noted that the level of grief I experienced is also based on my belief of what family constitutes (see Mullings 2007). Furthermore, because I foster-parented as a single woman, I had less personal support in my home and, therefore, possibly could have benefited from agency support; I was, after all, providing foster-mother services for the state. I wanted to provide a safe, stable, and nurturing home for children unable to live with their parents or kin. But in spite of my intentions, there were many disruptions of continuity of care, mostly the result of my devalued status as a temporary mother. Foster mothers have little decision-making power; their mothering skills are scrutinized and challenged constantly, yet they are expected to accommodate the needs of the children, their biological families, and the agency consistently, whether changes happen suddenly or gradually. These responsibilities create intense relationships that allow foster mothers to grieve the loss of foster children.

Foster mothers' grief and loss is shrouded in invisibility and is therefore referred to as "disenfranchised grief" (Edelstein, Burge and Waterman 12-15; Kaczmarek qtd. in Doka). Disenfranchised grief is described as losses in the mourner's life that are not socially acceptable or sanctioned, and so the person experiencing the grief cannot mourn publicly or participate in grief and loss rituals (Kaczmarek 254; Edelstein, Burge and Waterman 12-15). Foster mothers experience disenfranchised grief in their daily contact with foster children, who are themselves grieving the loss of their families while in care.

#### Grief and Loss Every Day

Margaret Burke and Tuesday Dawson argue that the child welfare "agency is dependent upon the foster parents and makes great demands of them. They need to be able to respond quickly to agency needs and usually receive 24 hours notice or less. They make many trips to the agency, hospitals, and court rooms. Their family routine revolves around the needs of the children and the agency" (37); furthermore, foster mothers are asked to emotionally attach to children and love them unconditionally. Susan Edelstein, Dorli Burge and Jill Waterman (6) note that historically, foster parents were instructed to refrain from becoming attached to the children they cared for. That policy has changed, as evidenced by agencies' preference for foster parents who intend to adopt the children in their care. But the intimate interactions that agency staff encourages exacerbate the feelings of grief and loss for foster mothers while caring for children and after they leave the foster home. According to Edelstein, Burge and Waterman (8), "foster parents have to deal with grief in many guises: the grief of the parents whose child they are caring for; the grief of the child in their care; their own grief upon losing a child to reunification, other placement, or adoption; and the grief of other family members as a foster child leaves." Children display their grief by crying, withdrawing, and being aggressive (Edelstein, Burge and Waterman 10; Thomas 202-204).

In my experience, children also express grief by stealing, self-harming, discussing how they miss their mothers, making requests to be placed with other foster families, or insisting on returning to the homes of their biological parents. Each child arrived at my home seemingly laden with a sense of loss and apprehension about the new foster home, as well as regret about having to make yet another adjustment to an unknown place with new rules, names, and expectations. This concurs with Edelstein, Burge and Waterman (9), who suggest that "when a child is placed in care, he or she experiences the loss of the previous caregiver, the familiar environment, and established relationships; this in spite being neglected and abused, traumatized or having highly conflicting relationships." Children going into care feel sadness, loneliness, and anger (Fernandez 356). Accordingly, my grieving began the moment a new foster child walked through my door. I had to support children coping with

their grief and loss while dealing with my own grief for them. Some children grieved the loss of their mothers and wanted to return home, as evidenced by a note to me from one of my foster children:

Dear Aunt Del,

I don't know what there is to talk about yesterday we had that whole computer thing and now my mom who promised me she would be at the visit and then was tested positive and broke her word promise to her daughter which makes me Very sad/upset I don't know why she would do that to me!!

It makes me so upset and I really want to be home with her:

P.s. can I go to the library tomorrow? and are we going to that thing at 7 tonight?

p.s.s. Thank for always being there for me!

LOVE YOU ♥ (TL)

The child expressed disappointment with her mother's actions and sadness at her own inability to be home with her mother. I experienced this child's grief deeply when I heard her crying at nights in her room or when she returned from a family visit in which her mother was unexpectedly absent. Over the years, I received similar notes from foster children when their grief seemed unbearable. With such notes, my grieving intensified as I struggled to hold on to the children in my care, while reminding myself that they were not my children and I had no right to harbour feelings of loss at their departure. Foster mothers must constantly recite the mantra that agency workers relay: "These children are not ours. We must care for them, love them, become attached to them, but let them go without emotion when they leave our families."

Children's requests to leave our family came in many forms, ranging from shouting, "I wanna move!" to written notes that simply requested a new placement. One such note said:

Ms. Mullings,

...I would still really like to have other arrangements made to go live somewhere else ... there have been times I have asked to leave (KH).

This type of request shows the vulnerability of foster mothers and highlights the temporary nature of a role that invites a contradiction and perpetuates the notion that foster mothers are not "real" mothers. This misconception is embedded in the thinking and actions of agency workers, the children, their families, the schools, and community members (Mullings 2007: 31-39). There are times when foster mothers create special bonds with foster children, the attachment between them is obvious, and both children and mothers recognize the milestones they have achieved. These intimate connections exacerbate grief and loss when children leave, regardless of the circumstances that take them away from foster homes.

#### Systemic Racism and Stereotyping of Black Motherhood

Another aspect of grief involves the loss of safety. As a Black woman mothering White children, systemic issues of racial discrimination occupied a permanent place in my relationship with the children I fostered and with the agency workers. White foster children declared that they felt uncomfortable living with a Black family, and with me in particular as a Black mother; the children said that the discomfort was sometimes more acute in public spaces. For example, one White child repeatedly asked for a placement change because we were a Black family and another asked that I hide and not enter the playground so that she could avoid questions about why we looked racially different. Children's requests and feelings are not problematic in themselves, given that the children are simply attempting to navigate their environment under a unique set of circumstances. However, the majority of agency staff, also White, were uncomfortable with the subject and were unable to adequately respond to the children's feelings and requests when I reported them. All they seemed able to do was regularly reiterate that most foster children preferred to keep their family status private and so tried to avoid being with their foster parents in public. Occasionally, workers said that they were unaware of the children's feelings-even though I documented these feelings in monthly reports to them.

Failure to address the children's concerns resulted in severe consequences for my family, including the removal of children. Some children reported that they were afraid of me and that I was too strict. Some workers admitted being afraid to approach me at times, and most stereotyped me as authoritarian, which Matthew Bumpus and Kathleen Boyce Rodgers (1375) note is consistent with research that suggests African-American parents often use behavioural control (McLoyd) and display characteristics of authoritarian parenting (Bumpus and Boyce Rodgers 1375 qtd. in Steinberg and Silk) more frequently than parents of other ethnicities. But Evelyn Nakano Glenn (20) notes that historically, reformers and middle-class women have attempted to control immigrant and working-class women's parenthood by defining what constitutes acceptable or inferior parenting (2), and this has led to further stereotyping and minoritization of Black foster mothers.

Another way that systemic racism affected my parenting was the notion that I used the "race card" to address issues that were common to all foster families,

whatever their ethnicity. Failure to understand the complexities of power relations and the insidiousness of systemic racism allowed agency personnel and other foster parents to label me with ease. And while I mothered White children, I also grieved the loss of my ability to mother the children from my unique perspective as a Black mother in a White-dominated and -controlled agency. The conflict between the children's discomfort with me as their foster mother and their love for me was unmistakable. There is no intent in this argument to contest or critique the children's love. Rather, the argument is intended as a place from which we can begin to acknowledge and discuss how racism affects the mothering experiences of Black foster mothers and how support might be offered to these mothers when children leave the foster home.

## When Children Leave: My Story

Foster children leave foster homes for various reasons. Policies and procedures are in place to ensure their emotional well-being, but programs, training, and mechanisms to help foster mothers cope when foster children leave are lacking. Further, Edelstein, Burge and Waterman (12) argue that when children leave foster homes, it is assumed that an emotional bond was not formed and so grief and loss is absent, or that foster mothers understood that the children's placements were temporary and so they had no right to feel a loss. The agencies' lack of appreciation for the bonding that occurs between foster children and foster mothers and the minimization of foster parents' grief when the bond is severed contributes to the non-committal support that workers offer to foster mothers. Nel Katibian (18) argues that foster mothers experience heartbreaking grief when foster children leave and that some degree of psychological separation accompanies a physical separation; therefore, coping with transitions has special meaning in foster family care (51-52). When a foster child is removed from one foster home and sent to another, it complicates the grief and loss process. Moving the child is seen as a "placement breakdown," and it is also a public event, given the number of individuals who are aware of the breakdown, including agency personnel, the children and their friends, schoolteachers, and so forth. There is no recourse for the public shame that foster mothers feel-but I can tell you, shame is a lot easier to manage than losing a child.

The child in question, a 14-year-old girl, came into our family and stole our hearts. Notwithstanding our love for each other, we had ongoing conflicts and disagreements, many of which were typical coming-of-age issues and the normal conflict mothers sometimes encounter with adolescent daughters. The major point of conflict involved the child wanting more unsupervised community freedom and my wanting more accountability from her. Unfortunately, it appeared that both her biological mother and the agency workers involved with her case agreed that she needed more freedom, but did not address the need for accountability. Throughout the time she lived with our family, my mothering and her commitment to personal growth allowed her to overcome serious health and behavioural problems and improve her academic performance. An indication of her growth is displayed in a letter she wrote to me two months prior to her removal from my care. In part it said:

Because you have tried so hard with me I feel I should never come to let you down.... You have been a mother to me and have took me in under your roof ... I know you don't believe in god, but sometimes i do believe he sent you as my angel, my guardien angel ... I know because of you i will grow into a person no one ever thought I could be, because of you i don't get what i want because you see right past my smile, because of you i KNOW I will not be pregnant at the age of 16. And finally because of you I am living this moment at this very second.... (TA)

In the note, the child exhibited personal power, which gave me a sense of gratification and pride as a foster mother. This is not unlike other foster mothers who report that "success meant watching the children change in positive ways, [and they] felt hopeful for the children in the long and short term." Success also meant realizing "when children know you are there for them" (Brown and Campbell 1018). In addition, many mothers say that "the highest amount of gratification resulted from their role as mothers, such as helping children" (Critelli 66). I contributed positively to my foster child's growth, but the feelings of gratification and pride were insufficient to sustain me on moving day, given my lack of preparation for the loss of yet another family member identified as a foster child.

### Moving Day

I had no reason to believe that the foster child I was losing that day would remain in my life after she left. This bears out in the research that suggests that 45 percent of foster parents indicate that they or foster children "never" received service in preparation for the removal of children from the foster home; 69 percent were "never" informed as to how their former foster children were doing after they left; and 74 percent were "never" helped to stay in touch with the children following removal (Baring-Gould, Essick; Kleinkauf and Miller qtd. in Urquhart 198). I had to let her go in spirit and with love.

She was a member of our family for more than a year. We saw her as one of us for the last time on a hot summer's evening in July before she was placed with another foster family. She returned from summer camp the Friday evening the day she was to move, and I gave her the news that she had gotten her wish—she was going to another foster family. I watched as she sat in stunned silence and disbelief. As she tried to reconcile the meaning of my information, her face became bright red; she tried to smile but those sparkling eyes were already brimming with tears, and as she looked down at her tanned fingers, big teardrops splashed on her hands. I held back my tears and tried to explain my reluctance to have her leave our family, but that she had asked repeatedly to go and her workers agreed that I was not the foster mother for her. With those words she sobbed loudly and I moved swiftly to embrace her. We sat on the sofa as mother and daughter for the last time and cried together.

The last few minutes in our front yard were equally intense. Two Children's Aid Society representatives were present: a resource worker to support the family and an unknown residential worker filled in for the customary one, who was away on vacation. I remember fighting hard to hold back the tears that were just below the surface and being aware of the dam threatening to release the floodgates. As the impending moment of departure moved closer, the dam began to slowly open, releasing hot salty tears. I hugged her, told her to be nice to her new foster mother, and reminded her of her potential to be someone great and far beyond what she was at the moment. She began to cry again, hugged me tighter than ever before, and kissed me on my left cheek. I began to sob as I allowed the residential worker to gently pry this child who had become mine while being someone else's from my arms. She climbed into the car that would transport her out of our lives permanently, still crying. The car drove off and my remaining family waved goodbye to her. I could see her puffy red eyes, stained with mascara, as she pressed her face close to the back windshield of the moving car. She waved goodbye until the car was out of sight, and that was my cue to break down in deep, uncontrollable sobs. My heart seemed to clog my chest as I fought to find a way to stay alive without this child in my life.

That Friday evening in July was the last time our family saw that child as a member of our family. As a temporary mother, I also knew that the child whom I had mothered would never again call me Mom, and all contact with her would be lost. Our family became one fewer in number with the stroke of a pen; the agency worker had rejected me as the child's mother and the child got the freedom without accountability she wanted. Life was normal in the daily grind of a foster mother's life of grief and loss.

There is no doubt that this was a difficult transition. Burke and Dawson capture the experience when they argue that

placement day evokes the extremes of emotions. In the eyes of the adoptive parents and biological parents, the foster parents represent the child's past. In order to avoid acknowledgement of the child's past situation, they may exclude, avoid, or ignore the foster parents and their place in and contribution to the child's life. (36)

This has indeed been my experience with both the biological mothers and foster parents who were not African-Canadians. In two of the cases, I had mothered the children for approximately 26 and 14 months respectively. One child was reunited with the biological family member and the other was placed with another foster family. The child who was reunited with the biological family moved to another province, but while she lived with me and prior to the reunification, I communicated regularly with her relative by telephone and electronic mail. After the child moved, communication stopped immediately. The child who was placed with another foster family lived fewer than five kilometers away from our home, yet neither the new foster mother nor the agency workers attempted to help the child maintain contact with our family. As a temporary mother, I was ostensibly forced from the children's lives. "This action and exclusion can cause foster parents more pain at a time that they are most vulnerable" (Edelstein 469). According to Lois Urquhart:

Foster mother respondents found separation and loss to often be the most difficult experience for them and their families to face. Many attested to particular losses years after the fact. Numerous comments indicated considerably more pain and grief were experienced when the child's case was felt to be bungled or mismanaged. (204-205)

In the narrative that I shared above, I felt that the child's case was mismanaged; that systemic racial biases permeated the handling of the case, and had I been her biological mother or kin, she would have resided with our family until she left our home or circumstances changed. I cried for almost four weeks alone and in silence after this child left our family. For months I found little objects, pieces of clothing, or other telltale signs that she once was a part of us. I kept her pictures on display and at times became sad and teary when I looked at them. I occasionally saw her from a distance in our neighbourhood, but was always apprehensive about meeting her directly, not knowing if my emotions would betray me. I received no official support from workers in the agency as I dealt with the loss of this foster child.

As I discussed earlier, and it bears repeating, there is a good deal of literature about the needs of foster children, suitable foster homes, and the parental skills necessary to provide the best support to foster children. In contrast, there is a lack of research on the needs of foster parents and their families and foster mothers in particular, the majority of whom are the primary caregivers for foster children. I have written this article to challenges the practices of child welfare agencies that continue to ignore foster mothers' emotional needs while caring for foster children and watching those children leave. I hope, with this article, to open the door to a dialogue about foster mothers' support needs and the experiences of Black foster mothers, which can then trigger research on these important subjects. Such research must include foster mother's perspectives, rather than foster families in general, and if child welfare agencies expect to retain current foster mothers as caregivers of children for the state, serious attention must be given to foster mothers' experiences of grief and loss.

## References

- Baring-Gould, Michael, Dorothy Essick, Cecilia Kleinkauf, and Michael Miller. "Why Do Foster Homes Close?" *Arete* 8 (2) (1983): 49-63.
- Brown, Jason and Calder Peter. "Concept Mapping the Needs of Foster Parents." *Child Welfare* 79 (6) (2000): 729-46.
- Brown, Jason D. and Melissa Campbell. "Foster Parent Perceptions of Placement Success." *Children and Youth Services Review* 29.8 (2007): 1010-20. Web. 30 April 2010.
- Bumpus, Matthew F. and Kathleen Boyce Rodgers. "Parental Knowledge and its Sources: Examining the Moderating Roles of Family Structure and Race." *Journal of Family Issues* 30 (10) (2009): 1356-78.
- Burke, Margaret and Tuesday A. Dawson. "Temporary Care Foster Parents: Motives and Issues of Separation and Loss." *Child and Adolescent Social Work* 4.3 & 4 (1987): 30-8. Web. 22 May 2010.
- Butler, Sandra, and Charles Marian. "'The Past, the Present But Never the Future': Thematic Representations of Fostering Disruptions." *Child and Family Social Work* 4 (1999): 9-19. Web. 28 May 2010.
- Coakley, Tanya M. et al. "Kinship Foster Parents' Perceptions of Factors that Promote or Inhibit Successful Fostering." *Children and Youth Services Review* 29 (1) (2007): 92-109. Web. 28 May 2010.
- Critelli, Filomena M. "Caregiving and Welfare Reform: Voices of Low-Income Foster Mothers." *Journal of Human Behavior in the Social Environment* 15 (4) (2007): 55-80. *CSA Sociological Abstracts*. Web. 30 April 2010.
- Denby, Ramona and Nolan Rindfleisch. "African Americans' Foster Parenting Experiences: Research Findings and Implications for Policy and Practice." *Children and Youth Services Review* 18 (6) (1996): 523-51. Web. 30 April 2010.
- Doka, Kenneth. Disenfranchised Grief: Recognizing Hidden Sorrow. Lexington, MA: Lexington Books, 1989.

- Dozier, Mary and Oliver Lindhiem. "This is My Child: Differences Among Foster Parents in Commitment to their Young Children." *Child Maltreatment* 11 (4) (2006): 338-45. Web. 22 May 2010.
- Edelstein, Susan B., Dorli Burge, and Jill Waterman. "Helping Foster Parents Cope with Separation, Loss, and Grief." *Child Welfare* 80 (1) (2001): 5-25. *ERIC*. Web. 30 April 2010.
- Edelstein, Susan. "When Foster Children Leave: Helping Foster Parents to Grieve." *Child Welfare* 60 (7) (1981): 467-73. *ERIC*. Web. 30 April 2010.
- Fernandez, Elizabeth. "How Children Experience Fostering Outcomes: Participatory Research with Children." *Child and Family Social Work* 12 (2007): 349-59. Web. 22 May 2010.
- Firth, Roderick, Jr. "Foster Parent Assessment: Exploring Loss and Fostering Experiences in the Lives of Foster Parents." *Dissertation Abstracts International, A: The Humanities and Social Sciences* 49 (11) (1989): 3517-A. CSA Sociological Abstracts. Web. 22 May 2010.
- Gil, Eliana. "Foster Parents: Set Up to Fail." Child Abuse & Neglect 8.1 (1984): 121-3. Web. 22 May 2010.
- Haight, Wendy L., et al. "Making Visits Better: The Perspectives of Parents, Foster Parents, and Child Welfare Workers." 81 (2) (2002): 173-202. CSA Social Services Abstracts. Web. 30 April 2010.
- Kaczmarek, Margaret G. "Disenfranchised Grief: The Loss of an Adolescent Romantic Relationship." *Adolescence* 26 (102) (1991): 253-9.
- Katibian, Nel. "Foster Mothers' Attachment, Loss, Grief, and Coping." 46 (02) (2008): 0737. *CSA Sociological Abstracts*. Web. 30 April 2010.
- MacGregor, Tracy, E. et al. "The Needs of Foster Parents A Qualitative Study of Motivation, Support, and Retention." *Qualitative Social Work* 5 (3) (2006): 351-68. Web. 28 May 2010.
- Marcellus, Lenora. "Supporting Resilience in Foster Families: A Model for Program Design that Supports Recruitment, Retention, and Satisfaction of Foster Families Who Care for Infants with Prenatal Substance Exposure." *Child Welfare* 89 (1) (2010): 1-129. Web. 22 May 2010.
- McLoyd, Vonnie, C. "The Impact of Economic Hardship on Black Families and Children: Psychological Distress, Parenting, and Socioemotional Development. *Child Development* 61 (1990): 311-346. Web. 30 April 2010.
- Miedema, Baukje. "Mothering for the State: A Sociological Exploration of Foster Mothers in New Brunswick." *Dissertation Abstracts International, A: The Humanities and Social Sciences* 57 (7) (1997): 3270-A. *CSA Sociological Abstracts.* Web. 30 April 2010.
- Mullings, Delores V. "Mothering White Children: An Africana Canadian Woman's Experience." *The Journal of the Association for Research on Mothering* 9 (7) (2007): 31-9.

- Mullings, Delores V. "Black Mothering White Foster Children to Survive: Racial Conflict with White Agency Workers." Unpublished Manuscript.
- Nakano Glenn, Evelyn. "Social Construction of Mothering: A Thematic Overview." *Mothering: Ideology, Experience, Agency.* Eds. Evelyn Nakano Glenn, Grace Change, and Linda Rennie Forcey. New York: Routledge, 1994. 2-29.
- Rhode, Kathryn, W., John G. Orme and Cheryl Buehler. "A Comparison of Family Foster Parents Who Quit, Consider Quitting, and Plan to Continue Fostering." *The Social Service Review* 75 (1) (March 2001): 84-113. Web. 30 April 2010.
- Rindfleisch, Nolan and Gerald Bean. "Predictors of Foster Parents' Satisfaction and Intent to Continue to Foster." *Child Abuse and Neglect* 23 (3) (1999): 287-303. Web. 22 May 2010.
- Steinberg, Lawrence and Jennifer Silk. "Parenting Adolescents." Handbook of Parenting. Vol. 3. Being and Becoming Parent. Ed. Marc. H. Bornstein. Mahwah, NJ: Lawrence Erlbaum Associates Inc., 2002. 103-13
- Swartz, Teresa Toguchi. "Mothering for the State: Foster Parenting and the Challenges of Government-Contracted Carework." *Gender & Society* 18 (5) (2004): 567-87. CSA Sociological Abstracts. Web. 30 April 2010.
- Thomas, Carolyn B. "The Resolution of Object Loss Following Foster Home Placement." *Smith College Studies in Social Work* 37 (3) (1967): 163-234. *CSA Sociological Abstracts*. Web. 30 April 2010.
- Urquhart, Lois R. "Separation and Loss: Assessing the Impacts on Foster Parent Retention." *Child and Adolescent Social Work* 6 (3) (1989): 193-209. Web. 22 May 2010.
- Wozniak, Danielle F. "Foster Mothers in Contemporary America: Objectification, Commodification, Sexualization." *Women's History Review* 6 (3) (1997): 357-66. CSA Sociological Abstracts. Web. 22 May 2010.