AUC Undergraduate Journal of Liberal Arts & Sciences

Open Issue Vol. 2 2013

AUC:Press

The AUC Undergraduate Journal of Liberal Arts and Sciences is a biannual, interdisciplinary publication showcasing outstanding undergraduate academic papers. The Journal aims to demonstrate the strength of undergraduate scholarship at AUC, to reflect the intellectual diversity of its academic programme, to encourage best research and writing practices, to facilitate collaboration between students and faculty across the curriculum, and to provide students with opportunities to gain experience in academic reviewing, editing and publishing.

FOREWORD

This volume of student writing is the first open submissions issue of the *AUC Undergraduate Journal of Liberal Arts and Sciences*. The issue has been primarily a student-led endeavour, but also represents sustained collaboration over the last year between AUC:Press, AUC faculty, and the student association AUCSA.

AUC:Press started out as a group of students with the goal of making an undergraduate academic journal. When this group assembled for the first time around a kitchen table, we could not have imagined the willingness of students and faculty to contribute to it, or the end result that followed.

The goal of creating this open submissions issue and of establishing AUC:Press in general was two-fold. We wanted to establish a student-led platform for the communication of ideas in the spirit of the liberal arts and sciences, as well as introduce undergraduate students to the academic processes of the real world. This meant for us that we wanted to create an academic, peer-reviewed journal, in collaboration with the student body and faculty of AUC. While a liberal arts and sciences education typically focuses on the first goal, the sharing of ideas, the second can easily remain a theoretical one. Students are introduced to academic writing and research practices from their first semester, but we believe that to more fully understand academic communication, both in practice and in spirit, it is important that students are able to be involved in the publication process.

To accomplish this, AUC:Press has been established as an open organization within AUC. Students may apply to become members of the editorial board, peer-reviewers, and above all else, everyone is welcome submit their academic work. For a young publication within a small institution we are delighted by the enthusiasm of students and faculty for this project, and to have received more than 50 submissions for this first issue. After review, the editorial board, comprising students and faculty, decided to publish these eight articles based on the quality of writing and research, and also the insight they provide into the liberal arts and sciences at AUC. The hope is that these articles may inspire us to think across broader horizons.

Henk Nieweg, on behalf of AUC:Press.

CONTENTS

Challenging Sexual Ideologies: A Sex-Positive Reading of Angela Carter's "The Bloody Chamber"

Michelle Pfeifer

ABSTRACT

This essay analyzes "The Bloody Chamber" by Angela Carter through the lens of sex-positive feminist criticism of Pat Califia and Gayle Rubin to examine how the re-writing of folktales can be a successful strategy in undermining dominant sexual ideologies and representing female agency. Pat Califia argues that certain sexualities are naturalized through institutions, such as marriage, and calls for dismantling these institutions to avoid sexual violence and oppression. Gayle Rubin adds to this criticism how institutions arbitrarily distinguish between 'good' and 'bad' sexuality. This creates a value hierarchy that sanctions deviant sexuality practiced outside of heteronormative institutions. Gayle claims that sexuality should instead be assessed according to its quality, meaning the pleasure it provides. Analyzing "The Bloody Chamber" through this sex-positive lens shows that the story criticizes the policing of sexuality through sexual ideologies. Sexual curiosity is re-conceptualized as positive and as a form of female sexual agency. Carter assesses sexuality according to the pleasure it provides instead of reinforcing institutionalized sexuality as natural. Thus, "The Bloody Chamber" is exemplary for the dismantling of cultural representations of sexual ideologies that punish deviant sexualities.

Keywords: Angela Carter, folktales, sex-positive feminist criticism, the Bloody Chamber

Sex-positive feminism criticizes how institutions and discourses naturalize and privilege certain sexualities while condemning others as unnatural and deviant. While sex-positive critiques often focus on how legal and medical practices reinforce a binary opposition between naturalized and deviant sexuality, relatively little attention has been paid to the impact of mythology and folktales on naturalized notions of sexuality. Similarly, sex-positive feminism emphasizes how non-normative sexuality challenges naturalized sexuality by disrupting the notion that sexuality is only acceptable for certain purposes, such as for reproduction and marriage respectively. Challenging dominant cultural perceptions of sexuality by re-writing folktales might provide a successful strategy in critiquing how sexuality becomes constructed as either acceptable or deviant.

Angela Carter's "The Bloody Chamber" (1979) is an exemplary re-writing of the dominant cultural perceptions of sexuality articulated in folktales. However, previous considerations of "The Bloody Chamber" have situated Carter's work within the feminist sex-wars, the debate and division within feminism concerning sexuality, pornography and sex work. Robin Ann Sheets, for example, argues that "The Bloody Chamber" uses pornography to represent the victimization of women (656-7). Similarly, Merja Makinen argues that Carter reveals in a disturbing manner the sexual manipulation of women by men (12-13). These anti-pornography interpretations fail to understand that meaning is actively constructed and that a dogmatic rejection of pornography does not account for female agency (Segal 60) Accordingly, Lynne Segal proposes to keep "creative space open

for ourselves as sexual agents" and warns against fixing meaning of female sexuality (60). Following Segal's critique of anti-pornography feminism, I want to analyze "The Bloody Chamber" through the lens of Pat Califia and Gayle Rubin's sex-positive feminism to determine whether it challenges the institutionalization of sexuality. By re-conceptualizing sexual curiosity, challenging the ideologies of sex-negativity and sexual hierarchy, and criticizing the effects of institutionalized sexuality on sexual minorities, "The Bloody Chamber" demonstrably undermines institutions and ideologies that police and control sexuality.

"The Bloody Chamber" is a rewriting of Charles Perrault's Bluebeard, a folktale from 1697. Bluebeard is about a wife whose curiosity leads her to disobey her husband and find out that he murdered his previous wives. When the husband learns of his wife's disobedience he attempts to kill her, but her brothers come to her rescue and kill him instead. "The Bloody Chamber" uses a similar setting to Bluebeard. A young woman gets married to an older man, the Marquis. Upon leaving for a business travel, the Marquis gives his wife the keys of the house, while explicitly instructing her not to make use of one particular key. The wife disobeys him and enters a chamber where she finds her husband's former wives murdered. When the Marquis learns of her disobedience he tries to kill her, but her mother comes to her rescue and kills the Marquis instead.

SEX-POSITIVE FEMINISM
Pat Califia argues that institutions naturalize and privilege certain forms of sexuality while stigmatizing sexual minorities. Society is governed by patriarchy, which invests in denying women independence and controlling women's sexuality (170). This control is employed through institutions that police sexual behaviour, making everyone subject to its "erotic tyranny" (ibid). In effect, myths about sexuality, such as romantic love, become naturalized while there is a lack of information and education to promote women's sexual freedom (178). Sexual minorities are more likely to become victims of violence and discrimination than the naturalized majority (178). Hence, Califia calls on feminists to "dismantle the institutions that foster the exploitation and abuse of women" which she identifies as the "family, conventional sexuality and gender" (170). By dismantling these institutions

she wants to destroy the policing of women's sexuality (ibid).

Gayle Rubin theorizes how sexuality is institutionalized through the "ideological formations" of, amongst others, 'sex negativity' and the hierarchical valuation of sex acts (150). 'Sex negativity' describes how Western cultures regard sexuality as essentially dangerous and sinful (150). Sex needs to be placed in respectable social formulas such as "marriage, reproduction, and love" to redeem its anarchic quality (150). Accordingly, sexuality is arranged in a "hierarchical system of sexual value" which naturalizes certain sexual acts, such as marital, reproductive heterosexuality, and stigmatizes other sexualities, such as sadomasochism (151). Sexuality becomes arranged in an arbitrary binary of 'good' and 'bad' sex (152). The hierarchy of sexual value is upheld by associating positive behaviour with "valuable" sexuality while sanctioning all 'deviant' sexuality (151). This value hierarchy is problematic because it stigmatizes sexual minorities (160). Rubin aims to construct an alternative model of judging sexuality, whereby one examines the nature of sexual acts according to whether they involve coercion and whether they provide pleasure (153). To ensure sexual freedom legal constrictions of sexuality not based on coercion and policing practices must be repealed (161). These developments would open the way for "erotic creativity" to challenge the established sexual hierarchy and ensure sexual freedom (172).

Califia and Rubin's sex-positive claims serve as a lens to investigate how Angela Carter's "The Bloody Chamber" aims to dismantle the institutions that police sexuality. Carter clearly identifies myths as part of the sexual ideology that imposes an arbitrary value hierarchy on sexual acts. She argues that myths are "consolatory nonsenses" that serve to conceal "real conditions of life" (Sadeian 5). For instance, marriage is acceptable although it often involves coercion in terms of economic dependence (Sadeian, 9). However, sex work is not socially acceptable even though it more overtly displays the exchange of money for sex (ibid). Hence, Carter shows that myths are invested in sustaining the arbitrary line between 'good' and 'bad' sexuality by enhancing the naturalized notion of marital sexuality as essentially good. Moreover, myths also perpetuate the ideology of sex negativity by sustaining Christian values of "shame, disgust, and morality" that govern sexual desires (Sadeian 11).

Carter regards the re-writing of myths as an effective technique of "demythologising" the ideologies of sex negativity and value hierarchy ("Front" 71). She is "all for putting new wine in old bottles, especially if the pressure of the new wine makes the old bottles explode" (69). Her project is to challenge naturalized notions of sexuality perpetuated by ideology in the form of myths and folktales to let "the old bottles," i.e. institutions such as marriage, explode by changing the content upon which these institutions rely.

RE-CONCEPTUALIZING CURIOSITY AND SEXUAL HIERARCHY
Carter's short story "The Bloody Chamber" is exemplary of her project to undermine dominant notions of sexuality perpetuated by folktales. By reconceptualising sexual curiosity as desirable Carter displays the negative effects of policing sexuality. In Perrault's Bluebeard, the tale's moral is that curiosity, while pleasurable, is dangerous and should not be indulged in (45). The wife transgresses the possibilities of matrimony to discover what has been strictly forbidden (39), and this has punitive consequences (41). The consequences, then, are not questioned but represented as natural. The husband's attempted murder represents a legitimate punishment of sexual curiosity because it is being committed within the institution of marriage. Hence, the tale clearly represents the value hierarchy Rubin describes. It is not the murder of the former wives but the current wife's curiosity that is judged as 'bad'.

"The Bloody Chamber" re-interprets this curiosity as sexual curiosity and criticizes its policing. Kathleen Manley draws on Laura Mulvey's analysis of "The Bloody Chamber" and argues that the curiosity of the protagonist for finding the forbidden space can be interpreted as a curiosity about "the nature of female sexuality" (76). Manley understands the protagonist's decision to marry as motivated by a curiosity for sex (76). Danielle Roemer argues that the protagonist represents "the spirit of curiosity that motivates explorations" (111). Being able to control this curiosity is what attracts the Marquis (112). Indeed, the Marquis tries to control the protagonist's curiosity as he forbids her to use the key to his private chamber knowing that she will disobey. Hence, the Marquis resembles the policing of sexuality described by Califia and Rubin. The protagonist exemplifies the struggle of resisting notions of naturalized sexuality. This struggle is

successful since the protagonist escapes the punitive consequences for her transgression. Thus, curiosity is reconceptualised as positive because it enables the protagonist to free herself from a dangerous and harmful relationship. Moreover, the protagonist's sexual curiosity is rewarded because it represents the gaining of self-knowledge and situates her as an agent of her own sexuality (Manley 76).

Accordingly, "The Bloody Chamber" offers a different value system to judge sexuality and undermines the ideologies of sex-negativity and sexual hierarchy. Instead of being represented as essentially dangerous, sex is expressed as possibly pleasurable, regardless of institutional legitimacy. While the protagonist's sexual desires towards the Marquis are represented as positive (11), when discovering the Marquis' collection of pornographic images, the protagonist questions her decision to marry the Marquis because the pornographic images do not give her pleasure (16-17). Consequently, she experiences sex with him as her matrimonial duty and coercion (17). She shudders as a result of his kisses and when he makes her put on a choker it is "cold as ice and chilled [her]" (ibid.). The choker symbolizes the control her marriage physically lays upon her. Hence, Carter criticizes the hierarchy of sex, which naturalizes matrimonial sex as 'good' even though it might be coerced. The protagonist decides to escape her marriage because she realizes that it is harmful, dangerous and, when she eventually discovers the murdered wives, fatal (29). Moreover, Carter reproduces a positive sexuality outside of respectable institutions. After the protagonist escapes her marriage she describes her life as fulfilled even though she has a sexually deviant relationship with her blind piano-tuner outside of official matrimony. Hence, pleasure becomes the means to judge sex instead of whether it is practiced according to constructed ideas of 'good' sex.

FAMILY, KINSHIP, AND ROMANTIC LOVE
However, "The Bloody Chamber" might also be argued to reinforce naturalized notions of sexuality instead of dismantling them. Michele Grossman, for example, argues that the story's conclusion relies "on a flamboyantly staged matriarchal rescue instead of proposing a heroine who liberates herself" (158). In the end, the protagonist relies on her mother's rescue, which she describes as "maternal telepathy", to

escape her marriage (Author's emphasis, Bloody, 40). More precisely, the protagonists' mother knew about her daughter's unhappiness without the daughter mentioning it. In terms of Califia and Rubin, this representation of motherhood naturalizes institutions of family and kinship, institutions invested in policing sexuality. Through representing the mother as a heroic figure, "The Bloody Chamber" might establish family and kinship ties as respectable and favourable norms.

Moreover, while the protagonist's relationship with her piano-tuner is not made respectable through marriage it is legitimized through the mother, who lives with the unmarried couple (Carter, Bloody, 40). In addition to this, the relationship of protagonist and piano-tuner is desexualized. As argued above the protagonist has sexual desires and makes an informed decision to escape her marriage because it is harmful. However, her relationship with the piano-tuner is completely devoid of sexuality, making it seem as if the protagonist has to substitute sexual pleasure for a loving relationship. Her former curiosity has disappeared and she now lives a "quiet life" (40). Hence, "The Bloody Chamber" reinforces the myth of romantic, egalitarian love as natural. Merja Makinen argues that this pitfall is due to Carter's adherence to the folktale formula (4). By using the form of the folktale, she is inevitably "unable adequately to revision the conservative form for a feminist politics" (ibid). Indeed, Carter seems to reinforce the ideology that naturalizes deviant sexualities to include them on the 'good' side of the sexual hierarchy. Thus, the freedom of sexuality Califia and Rubin advocate for appears to be absent from "The Bloody Chamber".

LOVE AND DEVIANCE
Still, rather than institutionalizing romantic love as oppressive sexuality, "The Bloody Chamber" depicts the dangerous process of liberating oneself from sexual oppression. The protagonist's mother has been ostracized for her decision to marry for love (ibid). Love is clearly positioned as a deviant space for sexuality. Therefore, the story's ending does not represent a new form of oppressive sexuality but an alternative space for free sexuality. This is an important change from Perrault's Bluebeard in which the widow uses her inheritance to re-marry. Instead, in "The Bloody Chamber" the protagonist uses her inheritance for charity. Also, in "The

Bloody Chamber" the protagonist and her lover are stigmatized for their relationship. They are "the source of many whisperings and much gossip" (40) and the protagonist is shamed for being "widowed at seventeen in most dubious circumstances" (41). Moreover, the protagonist physically bears the scars from the struggle towards sexual liberation. Upon discovering her betrayal, the Marquis presses the blood-stained key on her forehead leaving a "red mark" that will forever "shame" the protagonist (41). Carter does not invest in this stigma but criticizes its attachment to people that challenge naturalized forms of sexuality.

By highlighting the stigmatization of sexual deviance the lack of information about sexuality is criticized. The protagonist's decision to marry the Marquis stems from economic reasons (Carter, Bloody, 7). She is from a poor family and her mother has long been widowed (8). The protagonist is unable to detect the danger of marriage because her economic position and her insufficient knowledge about sex make her vulnerable. She assumes that sex within marriage must be "good" (11). Hence, "The Bloody Chamber" represents a criticism in the terms of Califia and Rubin who claim that the violence sexual minorities face and the lack of education perpetuate the naturalization of certain forms of sexuality. Rubin claims that we need to interrogate the quality of sexual relationships instead of relying on a naturalized sexual value hierarchy. "The Bloody Chamber" shows that naturalizing matrimonial sex deflects from the violence committed within those relationships. "The Bloody Chamber" shows that marriage can be violent in itself as in the case of the protagonist who enters a harmful relationship out of economic necessity.

CONCLUSION
To conclude, "The Bloody Chamber" depicts the reconceptualization of sexual curiosity as paramount to achieve sexual liberation. Sexual pleasure becomes the model to valuate sexuality, which undermines the dominant hierarchy of sexual value that arbitrarily distinguishes between 'good' and 'bad' sexuality according to its adherence to naturalized institutions. While the story's ending could be read as creating romantic love as a new form of oppressive institutionalized sexuality, the internal logic of the story situates love as a deviant space for sexuality. Hence, "The Bloody Chamber" offers a criticism

of the stigmatization of sexual minorities and their struggle of being labelled as sexually deviant. "The Bloody Chamber" criticizes the lack of education and information about sexuality by showing how it leads to the struggle and shame of the protagonist. Reading "The Bloody Chamber" through the lenses of Califia and Rubin's sex-positive feminism shows that re-writing folktales is a successful strategy in undermining and challenging dominant ideologies that police sexualities. While Carter might not make

the "old bottles explode," she significantly increases the pressure on institutions that police sexuality. Re-writing folktales is a successful strategy that cannot stand on its own, but must be employed alongside the legal, discursive and social changes Rubin and Califia advocate for in order to achieve sexual freedom and successfully dismantle the institutions that control sexuality. Subsequently, further research should consider the impact of cultural and literary representations on the formation of sexual ideologies.

WORKS CITED

Califia, Pat. "Feminism and Sadomasochism." *Public Sex: The Culture of Radical Sex.* San Francisco, CA: Cleis P, 2000. 165-75. Print.

Carter, Angela. "Notes from the Front Line." *On Gender and Writing.* Ed. Michelene Wandor. London: Pandora, 1983. 67-77. Print.

---. *The Bloody Chamber and Other Stories.* London: Penguin, 1979. Print.

---. *The Sadeian Woman and the Ideology of Pornography.* New York: Pantheon, 1978. Print.

Gubar, Susan. "Representing Pornogprahy: Feminism, Criticism, and Depictions of Female Violation." *Critical Inquiry* 13.4 (1987): 712-741. Print.

Grossman, Michele. "'Born to Bleed': Myth, Pornography and Romance in Angela Carter's *The Bloody Chamber.*" *Minnesota Review* 30/31 (1988): 148-160. Print.

Makinen, Merja. "Angela Carter's *The Bloody Chamber* and the Decolonization of Feminine Sexuality." *Feminist Review* 42 (1992): 2-15. Print.

Manley, Kathleen E.B. "The Woman in Process in Angela Carter's *The Bloody Chamber.*" *Marvels & Tales* 12.1 (1998): 71-81. Print.

Perrault, Charles. "Bluebeard." *The Fairy Tales of Charles Perrault* Aug. 1922: 35-45. *Project Gutenberg.* Web. 1 Jun. 2009.

Roemer, Danielle M. "The Contextualization of the Marquis in Angela Carter's *The Bloody Chamber.*" *Marvels & Tales* 12.1 (1998): 95-115. Print.

Rubin, Gayle. "Thinking Sex: Notes for a Radical Theory of the Politics of Sexuality." 1984. *Culture, Society, and Sexuality: A Reader.* Eds. Richard Guy Parker and Peter Aggleton. London: UCL Press, 1999. 143-78. Print.

Segal, Lynne. "Only the Literal: The Contradictions of Anti-pornography Feminism." Sexualities 1.43 (1998): 44-62. Print.

Sheets, Robin Ann. "Pornography, Fairy Tales, and Feminism: Angela Carter's *The Bloody Chamber.*" *Journal of the History of Sexuality* 1.4 (1991): 633-657. Print.

Depthless Performance? A Jamesonian Interpretation of Forsythe's *In the Middle Somewhat Elevated*

Meindert Peters

ABSTRACT

William Forsythe's choreographic works are several of the most important ones made in the second half of the 20th century. However, these works have never been discussed in light of postmodernist theory. This article, therefore, proposes a reading of one of his most performed pieces, *In the Middle Somewhat Elevated*, within the context of Jamesonian thought. As Fredric Jameson has himself never written on the performing arts, this essay not only comes to a better understanding of *In the Middle Somewhat Elevated*, but it also problematizes Jameson's notion of depthlessness when faced with live performance. Ultimately, it asks whether live performing bodies, as they are always grounded in reality, can ever be completely depthless.

Keywords: ballet, Depthlessness, Forsythe, Jameson, performing arts

The American choreographer William Forsythe (b.1949) stated that "a lot of people are attracted to ballet because it's a very organized structure and it organizes them. And if you present them with something that has tried to undo that structure, you can come up against a lot of resistance" (qtd. in Spier 135). His own undoing of the structure of classical ballet, however, has not kept Forsythe from becoming one of the most recognized choreographers working today. He was director of the Ballet Frankfurt in Germany for 20 years, until it ceased to exist in 2004. In that same year he founded the Forsythe Company, which travels between the cities of Dresden and Frankfurt. His works are performed by most major ballet companies in the world, such as the New York City Ballet, the Royal Ballet and the Kirov Ballet. One of his most performed pieces is *In the Middle Somewhat Elevated*, created for the Paris Opéra in 1987. This work, which later became part of the full-length ballet *Impressing the Czar*, has a duration of 28 minutes, featuring nine dancers dressed in skin-tight garments. The New York Times called this work "Mr. Forsythe at his fierce finest…this is an abstract, muscular piece, with banging, grunting music by Thom Willems" (Rockwell). In *In the Middle Somewhat Elevated* the dancers break out of lines and group work to perform solos, duets and trios, from which they suddenly halt to return to their group. *In the Middle Somewhat Elevated* and other of Forsythe's earlier works were, and are, enormously influential in the dance and ballet world in abstracting ballet moves to an elongated and sharp aesthetic quality and discovering new planes of movement: "Forsythe has enlarged the physical dimensions of the [classical] form, first forgetting, then changing conventional limits on balance and flexibility, the constraints of a vertical torso and unweighted arms, the practices of partnering, and the uses of pointe work" (Sulcas 34). As one of the most important dance pieces of the late 20th century, this essay will discuss the cultural significance of *In the Middle Somewhat Elevated* within the context of postmodernism.

Although much of the writing discussing Forsythe's choreography is guided by post-structuralist thought, it seems that an interpretation of his work in light of Fredric Jameson's writing on the postmodern has not yet been attempted, and yet it has significant relevance for Forsythe's work. By using the thought of Fredric Jameson, as one of the foremost postmodernist theorists, this essay will analyze Forsythe's *In the Middle Somewhat Elevated*. As a Marxist critic, Jameson's work is as much about

politics as it is about cultural production. His main argument is that "the emergence of postmodernism is closely related to the emergence of [...] late [...] capitalism" (Jameson, "Consumer" 1860). Thus, a discussion of Forsythe's *In the Middle Somewhat Elevated* in light of Jamesonian theories, will be of a political nature as well. In addition, this essay will explore the limitations of Jameson's theories in the interpretation of the performing arts, as the explicit relation of his work to this medium is limited. How do his theories, and his idea of "depthlessness" in particular, apply in the context of live performance and the presence of real bodies?

One of the most important notions in Jameson's theories is that of "pastiche." Pastiche eclipses parody, which mocks the original. Jameson states that:

> [p]astiche is, like parody, the imitation of a peculiar or unique style, the wearing of a stylistic mask, speech in a dead language: but it is a neutral practice of such mimicry, without parody's ulterior motive, without the satirical impulse, without laughter, without that still latent feeling that there exists something normal compared to which what is being imitated is rather comic. ("Consumer" 1849)

Forsythe's 'ballet', for example, is a pastiche of classical ballet. It mimics ballet by using its vocabulary, by adopting its language. The classical movements are all there, pirouettes, passés, etc, and so are the stretched legs and the pointe shoes. However, it is not a ballet in the traditional sense: there is no story, there are no elaborate costumes and decorations, nor is there the division between corps-de-ballet and soloists. Moreover, it does not mock ballet, it does not make fun of it. A parody like "The Concert" by Jerome Robbins from 1956, for example, ridicules the rigidity of ballet: steps and formations go wrong, and female dancers in tutus are carried around like dolls. Rather, Forsythe's piece uses ballet steps to turn the piece into an abstraction of what a ballet used to be. It is ironic, but it does not mock. Forsythe himself seems to acknowledge this point when he comments on "Impressing the Czar", saying: "you can't make a full-length ballet anymore because that's what was made in another era, so you have to make something that is an ironic, affectionate, practical version of a full-length ballet" (Sadler's Wells, Impressing). This pastiche of the old classical

ballet seems to mark a "weakening of historicity," as Jameson puts it. His notion is that "[p]ostmodernist art can no longer represent a real past but only our ideas and stereotypes about the past in the form of 'pop' history" (Seldon, Raman, and Widdowson 207). In this case, a spectacle is made out of the stereotypes of ballet, such as its high legs and technical accomplishments.

The abstraction of ballet also means that movements no longer refer to anything, pointing to a collapse of the semiotic model of signifier-signified. In the original sign, a signifier refers to a signified; a word or an image refers to a concept in the real world: the word 'cow' or an image of a cow, to an actual cow. This semiotic model creates depth. However, Jameson argues that in postmodernism this, and other depth-models, collapse, leading to flatness, or depthlessness. As the movements of *In the Middle Somewhat Elevated* do not have a story, or an idea they can express, they become flat. The only thing that this ballet refers to is ballet itself. In other words, the signifier is the signified, it is self-referential. Yet, there is another depth-model which collapses in postmodernism according to Jameson, namely the hermeneutic model of the inside and the outside. This model, Jameson states, establishes "outward dramatization of inward feeling" ("Cultural" 273). The outcome of this hermeneutic model, which is the aesthetic of expression, has "vanished away [...] in the world of the postmodern" with the waning of affect as a result (Jameson "Cultural" 273). In Forsythe's ballet all the expressive methods of the classical ballet have been taken away. The body no longer expresses emotion; it only performs high feats of technicality. Not only is the story, the reference, gone, but so is any expression of feeling from the body or the face. The dancers are seen staring blankly into space and the costumes and the stage are as simple as possible, too.[1]

There is no ornament, except for two golden cherries hanging in the middle of the stage. As a result of this lack of expression, the audience is not aware of a "vaster reality which replaces [the work] as its ultimate truth" (Jameson, "Culture" 271-2). In other words, the ballet only refers to ballet itself. The hermeneutic gesture cannot be completed and the ballet is depthless.

Here, however, the question also arises as to what extent a live performance can ever be truly

expressionless. Can a live body, firmly grounded in the real, ever be completely depthless? In addressing this question, however, this essay needs to discuss two other concepts important to Jamesonian thought which are closely linked to his concept of depthlessness: namely "the death of the subject" and the commodification of the body.

"The death of the subject" is an important notion in Jamesonian thought. According to Jameson, after "the conception of a unique self and private identity" in modernism, this notion no longer holds in postmodernism. The unique individual might be described as ideological, Jameson states, or even as a myth: the poststructural position is that the individual subject never even existed. This leads to a dilemma, because if a subject is no longer different from the others, then what happens to the authenticity of their work, their aesthetics? Jameson writes that they become pastiche: "in a world in which stylistic innovation is no longer possible, all that is left is to imitate dead styles" ("Consumer" 1850).

We have already discussed pastiche in *In the Middle Somewhat Elevated*. However, the notion of the death of the subject becomes interesting if we look at the dancers. All women in this piece wear the same costume, as do all men. In addition, the dancers' bodies are of a homogenous nature: they are of similar height and weight. Hence, only their sex can be differentiated. Moreover, the dancers are often seen walking side by side in one line, like troops at a military parade, until single dancers break out to do their choreography. They have all as good as lost their identity; the subject is dead. And as the dancers do not represent the characters of a story, the only way to keep track of individual dancers is to know them. The dancer, therefore, no longer refers to someone else, but to her- or himself only. Again, the semiotic depth-model collapses: the dancer becomes depthless.

Further, it seems that the dancer becomes a commodity as well, which, as a Marxist, Jameson is interested in. The body is no longer used to communicate a tale or an idea. The only story it seems to be telling is that of its own excellence. The technical feats, the flexibility of the limbs, the strength

and the partnering skills all seem to be narrating a commercial on what the human body is capable of. The spectators, incapable of comprehending what they see in front of them, are in awe. The audience stops trying to understand, which, again, has the waning of affect as a consequence.

Yet, both in the commodification of the body, as well as in Jameson's idea of the death of the subject, we may wonder to what extent the relevant depth-models can fully collapse and create a complete depthlessness in light of the presence of (live) real bodies, so fully grounded in reality.

Even though the ballet has become flat, and the human body has been commodified, the fact that it is a live performance, that the audience is watching live bodies, seems to state that the work is also very much 'real'. If we consider Andy Warhol's *Diamond Dust Shoes*, which Jameson discusses at length, they are flat because they are a representation without a reference in the real world. Yet, the human body, however much it is commodified, will always be a part of the real world. The dancer's body we are faced with while watching *In the Middle Somewhat Elevated*, in all its excellence, and without it telling a story, is not a perfected, flat, image of the human body. Because the dancer will never have total control over his or her body, mistakes will be made, however small, that establish a connection from that dancer's body to the natural body in the real world. The semiotic model of signifier-signified can, thus, never completely collapse. Interestingly, this also means that the more stable and the better the performance is, the more depthless it will be. At the same time, these imperfections and mistakes of the dancer, the very 'humanness' or 'realness' of the dancer, also ensure its expression: there will always be a minimum of externalization, connecting them to their spectators. The audience will be affected by the little imperfections which ground the dancer in reality, and which enables the spectator to identify with the dancers. Thus, the hermeneutic gesture is still completed, at least in its narrowest sense, and a complete waning of affect is not achieved. A total flatness and a total waning of affect can only

---

[1] In fact, in one of Forsythe's other ballets, "The Vertiginous Thrill of Exactitude", the classical tutu has been replaced by a tutu which is literally flat, which can also be seen as a form of pastiche.

be achieved when absolute technical perfection is achieved, when the commodification of the human body has been completely realized, and the body is no longer part of nature, but of the system of late capitalism.

An often heard criticism of Jameson is that he leaves little room for the possibility of reflexivity within the postmodernist artist. The 'flat' *Campbell's Soup Cans* by Warhol could be viewed as a commentary on commercial industry, or mass-production at large. However, Jameson is pessimistic about this kind of interpretation. For Forsythe's work the same question can be asked: might he be reflecting on the human body, on dance itself? Here, perhaps, Jameson's pessimism is merited. Forsythe, in an interview given in 1984, three years before the creation of *In the Middle Somewhat Elevated*, seems to suggest a lack of depth in his pieces: "the most important thing is how you speak with the language, not what you say" (Kirchner 6). Moreover, although the title of the piece seems to suggest depth, it only refers to a meeting Forsythe had with the technicians who asked him where he wanted the golden cherries to hang: "oh... in the middle somewhat elevated" (Sadler's Wells, *Middle*).

In conclusion, many of the aspects Jameson recognizes in postmodern culture, can be found in Forsythe's piece. It can be interpreted as a form of pastiche, as depthless, self-referential, and as causing a waning of affect. At the same time, this specific medium also challenges the notion of depthlessness in the way that live performance inherently means that, at least to a certain degree, the piece is grounded in reality. Therefore, this kind of case-study is not only fruitful for establishing a better understanding of this kind of work, but also for challenging the notions put forward by Jameson. In the end, if we consider that Jameson asserts that postmodern culture expresses the "logic" of late capitalism, this interpretation of *In the Middle Somewhat Elevated* does not reflect positively on the postmodern society of the 1980s. Yet, our interpretation of this ballet can, perhaps, also offer some consolation: that at least the performing arts are still grounded in reality, and are, thus, not completely depthless.

WORKS CITED

Brandstetter, Gabriele. "Political Body Spaces in the Performances of William Forsythe." *Performative Body Spaces: Corporeal Topographies in Literature, Theatre, Dance, and the Visual Arts*. Ed. Markus Hallensleben. Amsterdam: Rodopi, 2010. 57-74. Print.

Franko, Mark. "Archaeological choreographic practices: Foucault and Forsythe." *History of the Human Sciences*. 24.4 (2011): 97-112. Print.

Huschka, Sabine. "Media-Bodies: Choreography as Intermedial Thinking Through in the Work of William Forsythe." *Dance Research Journal*. 42.1 (2010): 61-72. Print.

In the Middle Somewhat Elevated. by Paris Opera Ballet. ch. William Forsythe. Performance.

Jameson, Fredric. "Postmodernism and Consumer Society." *The Norton Anthology of Theory & Criticism*. Ed. Vincent B. Leich, et al. 2nd ed. New York: Norton, 2010. 1846-60. Print.

Jameson, Fredric. "Postmodernism, or the Cultural Logic of Late Capitalism." *Twentieth-Century Literary Theory: A Reader*. Ed. K. M. Newton. 2nd ed. Hampshire: Palgrave MacMillan, 1997. 267-75. Print.

Jameson, Fredric. *Signatures of the visible*. New York: Routledge, 1992. Print.

Kirchner, Birgit. "Good Theatre Of A Different Kind: An Interview with William Forsythe, Newly Appointed Director Of The Frankfurt State Opera." *Ballet International* 7.8 (1984): 4-9. Print.

Roberts, Adam. "Jameson, Fredric." *The Encyclopedia of Literary and Cultural Theory*. Ed. Michael Ryan. Blackwell Publishing, 2011. Web. 31 May 2012.

Rockwell, John. "On Their Toes, with Something Other than Romanticism in Mind." *New York Times*. New York Times, 19 March 2005. Web. 7 March 2012.

Sadler's Wells, prod. *Forsythe on In The Middle Somewhat Elevated. Sadler's Wells*. Sadler's Wells, N.d. Web. 31 May 2012.

Sadler's Wells, prod. *Forsythe on Impressing the Czar. Sadler's Wells*. Sadler's Wells, N.d. Web. 31 May 2012.

Seldon, Raman, Peter Widdowson, and Peter Brooker. *A Reader's Guide to Contemporary Literary Theory*. 5th ed. Harlow: Pearson Longman, 2005. Print.

Spier, Steven. "Engendering and composing movement: William Forsythe and the Ballet Frankfurt." *The Journal of Architecture*. 3.2 (1998): 135-46. Print.

Sulcas, Roslyn. "The Force of Forsythe." *Dance Magazine*. 80.4 (2006): 34-40. Print.

Traditional Games, Culture, and Cognition

Nathan Potter

ABSTRACT

Until the 21st century, the mechanisms underlying cognition were thought to be universal, with a common set of basic processes governing the response to stimuli. Now, however, there is increasing evidence that culture plays a significant role in determining the nature of those basic processes. In particular, there appears to be a clear distinction between "Eastern" and "Western" cultures in the use of inductive inference, with respective biases towards context-dependent and context-independent cognition. These differences are reflected by the metaphysical foundations of each culture – the way in which their philosophical traditions attempt to explain the basic nature of the world – as well as by important cultural products such as military strategy and traditional board games.

In 2001, Nisbett et al. proposed an association between cultures and their dominant systems of thought. This was initially a controversial hypothesis, as it means that "psychologists who choose not to do cross-cultural psychology may have chosen to be ethnographers instead" (p. 307). In particular, the evidence strongly indicates that individuals from Eastern and Western cultures tend to emphasize different basic processes in the construction of their respective worldviews. Nisbett's general model for the formation of the relationship between culture and cognition sees social structure as the most fundamental determinant of the development and preservation of "sociocognitive homeostatic systems" (p. 292).

Until recently, the traditional Chinese board game wei qi, known as GO in English, had received scant English-language academic attention. Atherton et al. performed an fMRI comparison of chess and wei qi players (2002), and Lee et al. found evidence for significant white matter growth (believed to facilitate intra-brain communication) in long-term wei qi players in 2010. Apart from these studies, however, peer reviewed work on wei qi tends to be limited to the fields of computer science and game theory, reflecting a significant research gap when compared to chess.

In "On China", Henry Kissinger describes wei qi as key to his understanding of Chinese foreign policy during the Cold War (2011). And while Kissinger is certainly in a unique position of authority when it comes to the matter of Sino-Western relations, research from the past decade seems to indicate a far deeper truth to his insight: namely that basic perceptual processes are not as universal as was once thought. In 2002, Nisbett proposed a cultural bias in perceptual orientation. Context-dependent and context-independent styles of cognition – designations for the degree to which an individual's perception of an object is influenced by its context – have been identified as preferred by "Eastern" and "Western" cultures respectively (Nisbett, 2002). The existence of such systems invites questions as to the causal nature of the relationship between a culture and its products. By considering the cultural products most representative of a culture's dominant problem-solving strategies, such as philosophy, military strategy, and traditional board games, it becomes possible to further contextualize Nisbett's model.

A fundamental reflection of this cognitive dichotomy can be found in the unique approach each culture has taken to constructing a philosophy of mind. For instance, while ancient Greek philosophers such as Aristotle and Plato considered the defining properties and divisibility of the world's basic elements, Eastern traditions had long since come to the conclusion that such distinctions were irrelevant. Instead, Buddhist, Confucian, and Taoist philosophers saw the world as defined solely by inter-item

relationships. These philosophical foundations – dualism and non-dualism – are also reflected by the social structures of their parent societies. For the Greeks, this can be seen in their values of personal agency and debate, while the Chinese emphasized a "sense of reciprocal social obligation or collective agency" (Nisbett, 2002).

A similar dichotomy is also found in the traditional board games favored by each culture. In the West, the dominant game, chess, is a game of total war. Each playing piece has a clearly defined role and unique abilities; an endgame can only be reached through a defeat, victory, or stalemate. A successful strategy is largely dependent on identifying a point of weakness in the opponent's forces and throwing as much strength as possible at it, often through a series of successive sacrifice plays.

Wei qi, however, depends upon "the patient accumulation of relative advantage" (Kissinger, 2011). Additionally, all the playing pieces are identical and gain individual importance only through their positional context and relationship to each other. At the end of a wei qi game, both players will usually have built roughly equivalent territories, and victory is often determined by an incredibly small difference in points – particularly at the professional level. In wei qi terminology, uncapturable groups of playing pieces are referred to as "alive", and it would be almost unthinkable for a game to end without both players having at least some "living" territory. This presents a considerable contrast to the existential nature of the checkmate.

Chess games begin with every piece deployed on the board, thereby allowing a player to consider all his opponent's capabilities at any point in a game. Superior play requires the application of strategic principles (e.g., "controlling the center") to the selection of particular branches of moves for individual analysis. Such guiding principles are only necessary, however, when dealing with the limitations of human cognition. Computing has employed a brute force approach instead, and can now essentially "solve" chess by evaluating every possible move. Witness, for example, the success of the brute force strategies employed by Deep Blue in its landmark 1997 defeat of the champion chess player Gary Kasparov; today, chess professionals can no longer defeat computers. Chess, therefore, can be seen as a test of analytic ability.

Wei qi computing has yet to reach that point, although it is likely to get there soon. The strongest wei qi programs play at the level of the best Western amateurs, and their strength appears to be increasing as they receive additional processing power. Rather than attempting analysis of wei qi's permutational nature, however, these programs employ "Monte Carlo" methods, in which a number of possible moves are randomly chosen and evaluated for their likeliness of producing victory. This is also a brute force approach, but one that implicitly acknowledges the impossibility of "solving" wei qi. For humans, at least, wei qi demands particular consideration of relative contextual importance, because "where the skillful chess player aims to eliminate his opponent's pieces in a series of head-on clashes, a talented wei qi player moves into 'empty' spaces on the board, gradually mitigating the strategic potential of his opponent's pieces" (Kissinger, 2011).

It is perhaps no surprise then that the same strategic principles reflected in these traditional board games are also reflected in the preeminent military strategists of each parent culture. For example, the 19th century Prussian theorist Carl von Clausewitz's approach to the uncertainty inherent in the "fog of war" involved the application of Platonic principles. And, according to Kissinger, "even Clausewitz's famous dictum that war is the continuation of politics by other means implies that with war the statesman enters a new and distinct phase" – that is to say, a distinct activity with distinct considerations (Kissinger, 2011). Different situations may require the application of particular logics in an effort to compensate for risk and uncertainty, but these can be seen as defined largely by their similarities.

This is a position that would have been unthinkable to the ancient Chinese general Sun Tzu, who saw both politics and psychology as indistinguishable extensions of the battlefield: "Where Western strategists reflect on the means to assemble superior power at the decisive point, Sun Tzu addresses the means of building a dominant political and psychological position, such that the outcome of a conflict becomes a foregone conclusion" (Kissinger, 2011). Such a philosophy would obviously appeal to Kissinger as a sort of ancient realpolitik, but it also expresses the same basic precepts of the non-dualist writings Sun Tzu would likely have been familiar with: the idea that what constitutes an act of war depends

solely upon its context and can take place in any number of settings. Perhaps the wide applicability of this perspective is partly responsible for The Art of War's enduring popularity with the business community.

Not only do these games differ in rules and strategy, but they also make distinct problem-solving demands. Neuroimaging studies have shown significant right-brain lateralization – associated with spatial intelligence – in wei qi players (Chen et al., 2002). In contrast, chess players displayed relatively non-lateralized results indicative of non-spatial general intelligence (Atherton et al., 2002). Significant right-brain white matter growth has also been shown in the brains of long-term wei qi players (Lee et al., 2010). In light of these functional differences and long-term changes in chess and wei qi players, and the enormous popularity of wei qi in most Eastern cultures (Japan even has entire television channels dedicated to professional play), it seems that cultural products have a direct effect on the "sociocognitive homeostatic system", with perhaps even traditional games exerting some specific influence (although such an influence would likely have been greater before the rise of modern information society) (Nisbett, 2002). It would therefore be reasonable to speculate that similar white matter growth might be found in the brains of long-term chess players, albeit without the same hemispheric lateralization. Not only does culture influence cognition and vice versa, but there is now also evidence emerging that indicates a possible role for genetics in determining perceptual orientation. Signal processing sensitivity, or SPS, is a temperament trait that measures an individual's reactivity to stimuli. In 2010, Aron et al. found an association between SPS and an individual's relative performance on context-dependent and context-independent tasks, and also noted that SPS has been genetically linked. Does this imply a relationship between genetics and the nature of cultural products? That is to say, have higher levels of SPS expression in Eastern cultures had a formative influence in determining (for example) the unique qualities of its philosophy, military strategy, and traditional board games? There would likely be a selection factor involved in the emergence of such a trait; perhaps, as Nisbett et al. proposed in 2002, with an increase in fitness relative to the organization of the host society's social structure.

Even if we could be certain of such an association, its exact magnitude would likely be difficult – if not impossible – to measure. However, indications suggest that there does indeed exist a relationship of mutual influence between culture, cultural products, and cognition. These relationships imply that the most basic cognitive processes we use in everyday life – determining whether objects exist singularly or in groups, and the qualities that best describes these objects– are a product of nurture rather than nature.

While such ideas are likely to appeal academics who ascribe to the functionalist views of cognitive neuroscience, they are perhaps even more valuable for the promotion of inter-cultural understanding, with potential applications in international relations. Wei qi in particular has been the subject of security studies at the U.S. Army War College, where it has been described as "a living reflection of Chinese culture – its strategy, thought, philosophy and operational tactics" (Posner, 2012). In this manner, the way in which these traditional board games reflect the basic ideas ancient societies held about the divisibility of the world – its inherent dualism or non-dualism – continues to influence the lives of billions of people. One can only hope that they are able to serve as tools for peaceful understanding, rather than metaphorical justifications or desensitizing paradigms with which to further conflict.

BIBLIOGRAPHY

Aron, A., Ketay, S., Hedden, T., Aron, E., Markus, H., & Gabriele, J.D.E. (2011).
 Temperament trait of sensor processing sensitivity moderates cultural differences in neural response. *Social Cognitive & Affective Neuroscience, 5* (2-
 3), 219-226.

Atherton, M., Zhuang, J., Bart, W.M., Hu, X., & He, S. (2002). A functional MRI study of high-level cognition. I. The game of chess. *Cognitive Brain Research*, 16, 26-31.

Chabris, C.F. (1999). *Cognitive and neuropsychological mechanisms of expertise: studies with chess masters.* (Doctoral dissertation). Retrieved from
 http://www.wjh.harvard.edu/~cfc/Chabris1999d.pdf

Chen, X., Zhang, D., Zhang, X., Li, Z., Meng, X., He, S., & Hu, X. (2002). A function MRI study of high-level cognition II. The game of GO. *Cognitive Brain Research, 16*, 32-37.

Chua, H.F., Boland, J.E., & Nisbett, R.E. (2005). Cultural variation in eye movements during scene perception. *Proceedings of the National Academy of Sciences*,
 102 (35), 12629-12633.

Kissinger, H. (2011) On China. New York: Penguin.

Lee, B., Park, J.Y., Jung, W.H., Kim, H.S., Oh, J.S., Choi, C.H., et al. (2010). White matter neuroplastic changes in long-term trained players of the game of
 "Baduk" (GO): a voxel-based diffusion tensor imaging study. *Neuroimage*, 52 (1), 291-310.

Nisbett, R.E., Peng, K., Choi, I., & Norenzayan, A. (2001). Culture and systems of thought: Holistic versus analytic cognition. *Psychological Review, 108* (2), 291-310.

Nisbett, R.E., & Miyamoto, Y. (2005). The influence of culture: Holistic versus analytic perception. Trends in *Cognitive Science, 9* (10), 467-473.

Posner, M. (2012, August 24). Weiqi: The game that holds China's key to world domination. *The Globe and Mail*. Retrieved from http://www.theglobeandmail.com

Odd One Out: The Tsunami Mystery of Langkawi

Elko Langhout

ABSTRACT

Although the 2004 Indian Ocean Tsunami was one of the deadliest and most far-reaching in thirty years, the Malaysian island of Langkawi, situated relatively close to the tsunami epicenter was mysteriously spared from the worst of the tsunami, despite being located in-between the more heavily hit islands of Phuket and Penang. By analyzing demographics, the tsunami's characteristics, the geological record, bathymetry and the coastal features of Langkawi, this investigation aims to uncover the reasons behind the relative lack of damage suffered by the island. It is revealed that both Langkawi and Phuket suffered less damage due to the energy that the tsunami lost by diffracting around Sumatra and entering the shallow Straits of Malacca. Langkawi was also less affected than Penang due to its less urbanized nature, and it being surrounded by islands which would also have further weakened the tsunami. However, empirical and field data on the islands' landforms and barrier islands is necessary to further confirm the theory.

INTRODUCTION

Occurring on the 26th of December 2004, 8:58:50 am (UTC+8), the 2004 Indian Ocean Tsunami was one of the deadliest and largest tsunamis in recorded history (Bernard et al. 2006). The earthquake alone, known as the Sumatra–Andaman earthquake, was the third-largest recorded earthquake in history and hada moment magnitude of 9.3 (Bird et al., 2007). The earthquake's epicenter was located at 3.298° N, 95.779° E, which is about 150 km off the west coast of Sumatra in Indonesia (Bird et al., 2007). Locations ranging from Sri Lanka to Hawaii witnessed the tsunami, with wave heights ranging from 2 meters to 25 meters in the Indian Ocean (Bird et al., 2007). Approximately 230,000 people were killed in eleven countries bordering the Indian Ocean as a result of the tsunami (Bird et al., 2007). Yet, in the midst of this, some areas within range of the tsunami were somehow spared its full wrath. One of these locations was Langkawi, a cluster of 99 islands of which four are inhabited, located to the northwest of peninsular Malaysia. The case of Langkawi (which will now refer to the largest island of the archipelago) is best compared with that of Phuket, Thailand and Penang, Malaysia, two islands also lying south of the Malaysian peninsula on opposite sides of Langkawi (as can be seen in Figure 1).

Figure 1: The location of the three islands, taken from Google Earth

While the tsunami was responsible for 259 deaths and 700 missing people in Phuket (Bagai, 2005), and 52 deaths and 5 missing people in Penang (Colbourne 2005), there was no mention of Langkawi specifically in Malaysia's death toll record, except for one recorded death (Bird et al., 2007). Although Langkawi is located in between Phuket and Penang, it was not as badly hit by the tsunami compared to the other islands. At first glance, this appears counter-intuitive and is worth investigating.

The factors that reduced the tsunami impact on Langkawi constitute the core of this investigation. The research question will be tackled in five different sections, each of which addresses a different aspect of the tsunami and the island it hit. Section 1 examines the geological record of Langkawi. A discussion on the demography of the three islands can be found in Section 2. The quantitative characteristics of the tsunami on Langkawi will be discussed in Section 3, while section 4 investigates the bathymetry of the three islands and that of the Straits of Malacca. In Section 5, the coastal landforms and defenses of Langkawi and Penang will be addressed, as well as the role of islands as barriers.
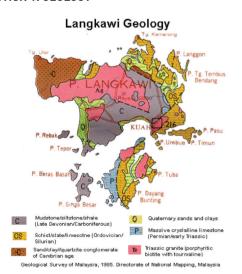
SECTION 1: GEOLOGY

Figure 2: Geology of Langkawi (Colbourne, 2007)

Langkawi is characterized by both extremely old and recent deposits (Burton, 1972). As seen in Figure 2, the most important features are a sand/clay/quartzite conglomerate formation dated to the

Cambrian found on the northwest outcropping of the island, Triassic granite through the center, Mudstone/siltstone/shale in the center to southeastern side dated to the Late Devonian to Early Carboniferous, and Quarternary deposits of sands and clays found on the lower half of the western side. Geologically, Langkawi bears semblance to Penang, which is predominantly composed of granite as well as some sedimentary Pleistocene and Quaternary deposits (Colbourne, 2007). Colbourne mentions that the topography and geology modified the tsunami impact, but gives no further details. This paper will assume that there is large enough similarity between the two islands to conclude that the geology did not play a major role.

SECTION 2: DEMOGRAPHY

The islands of Phuket, Penang and Langkawi have populations of different sizes. According to national censuses, Langkawi has a population of about 64,000, while Phuket's population (including some neighbouring islands) is around 354,000. Penang's population is around 75,000. While these figures do not include tourist numbers, they can still give a rough percentage estimate of how badly these islands were affected by the tsunami. Including missing people, 0.2% of Phuket's population died as a result of the tsunami. For Penang, this figure lies at the comparatively low percentage of 0.07%. Because the sample size of the death toll for Langkawi is too low, the percentage cannot be calculated. This reinforces the notion that Langkawi was not as heavily hit compared to the other two islands, despite the fact that the island is in between the other two. As Figure 3 shows, most of the cities on Langkawi are near the coast. Despite the fact that most of the population lives near the coast, there were few casualties, reaffirming that the tsunami was weaker at Langkawi.

Figure 3: Langkawi and some of the larger barrier islands

SECTION 3: TSUNAMI CHARACTERISTICS

The quantitative characteristics of the tsunami in Langkawi have been provided by Bird et. al: the tsunami's maximum elevation as it crossed the coast was 4.29 m. The tsunami's maximum flow depth was 2.0 m. As it approached the Langkawi shore, the tsunami had a very consistent run-up elevation, relative to the mean sea level, of 300 ± 10 cm. The tsunami reached as far inland as 300 m, while inland creeks were penetrated even further. Damage suffered by structures appeared to have been minor, and was mostly confined to 50 to 150 m inland of the shoreline. In this zone, about 10% of the houses were completely destroyed and 60–70% suffered significant structural damage (2007).

The tsunami approached Langkawi in three waves, with around 90 minutes in between the arrival of the first and third waves. According to Colbourne, as the tsunami diffracted around Sumatra, its speed was 160 km/h (2005). Three hours after the earthquake, the tsunami hit Langkawi. According to Bird et al., the first wave approached Telaga Harbor (see Figure 3) from the east, at a time of 12:18 pm (2007). Bird et al. estimate that the average velocity of the wave while travelling to Langkawi was at least 240 km/h (2007). As the wave passed Telaga Harbor it refracted around Tanjung Belikit (see Figure 3), aligning parallel with the coastline. Moving through progressively shallower water, it travelled northeast at a sharply reduced velocity of between 25-30 km/h (Bird et al., 2007). This first wave struck Telaga Harbor at 12:24 pm local time (Bird et al., 2007). The water only started retreating by 12:27 pm, and the second wave entered the harbor at 12:52 pm. Around 12:56 pm, the water retreated again, and the third and final wave struck at 14:04 pm.

The author of this paper was at Kampong Temoyon when the tsunami struck, and still remembers the first wave. Before the wave arrived, the water levels on the beach were strangely low. The first wave could be easily spotted, not because of a high amplitude, but because the wave was filled with mud and debris, and did not approach the coast in a parallel fashion. The wave appeared to be originating from the northwest, and inundated several dozen

meters of shoreline. This concurs with the account given by Bird et al. (2007). Its pullback was strong enough to snatch smaller objects like debris or items carried by hand, but not things as large or heavy as boats or human beings.

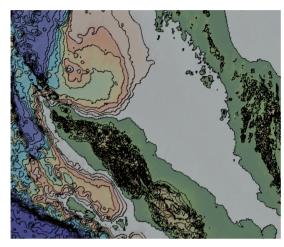### SECTION 4: BATHYMETRY

Figure 4: Elevation of South East Asia. The elevation difference between the contour lines is 250 m. Created using GeoMapApp*

The statistics calculated above indicate that despite the fact that Langkawi was not as heavily hit in terms of death toll as Penang, the two Malaysian islands fared better than Phuket, or even Sri Lanka. According to Colbourne, the impact of the tsunami on Malaysian coasts was muted (2005). Two reasons are given: the first relies on the fact that tsunamis have long wavelengths up to hundreds of kilometers, and that wave speed is reduced in water depths that are half as long as the tsunami wavelength or less (Bernard et al., 2006). Additionally, shallow seafloors dissipate tsunami energy via friction (Bernard et al., 2006). Thus, the amount of damage caused by the tsunami in Sri Lanka and other locations across the ocean can be explained by the depth of the Indian Ocean, and the fact that these locations lie off the continental shelf of the Eurasian Plate.

GeoMapApp is an earth science exploration and visualization application of the Marine Geoscience Data System of Columbia University. Elevation data from ASTER, NASA
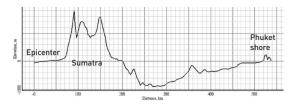
Figure 5: Elevation levels from the earthquake epicenter to Phuket. Created using GeoMapApp
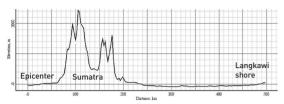

Figure 6: Elevation levels from the earthquake epicenter to Langkawi. Created using GeoMapApp
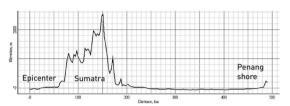

Figure 7: Elevation levels from the earthquake epicenter to Penang. Created using GeoMapApp

Furthermore, if the tsunami travelled to its destinations in a straight line, the maximum depth that the tsunami crossed on the way to Phuket (over 900 m under sea level, see Figure 5) is much larger than the maximum depth on the way to Penang or Langkawi (120 m under sea level, according to Colbourne (2005), see Figures 6 and 7). Second, Malaysia lies in the 'shadow' of Sumatra, as the island is situated directly in between the epicenter and Langkawi (see Figure 4). The tsunami reached Langkawi and Penang through diffraction around the northern end of Sumatra (Colbourne, 2005). After that it reached the Malaysian coast by travelling across the Straits of Malacca in a southeastern direction. Tsunami waves lose more energy when they bend around elongated, angular islands such as Sumatra (Stewart, 2008). While the tsunami still had to diffract around Sumatra to reach Phuket, one can assume that the waves travelling towards Phuket lost less energy than those heading into the Straits of Malacca (see Figure 8). Refraction and interference of regular ocean waves are a reasonable explanation on how the tsunami's speed was reduced (Colbourne, 2005).
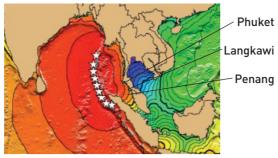

Figure 8: Tsunami travel time map. The divisions between colors represent the hours after the initial event. Taken from the National Oceanic and Atmospheric Administration (2007)

SECTION 5: COASTAL FEATURES

Now that reasons why Malaysia suffered less damage than other regions hit by the tsunami are known it becomes important to investigate why Langkawi fared better than Penang. Coastal features can offer an insight, as both Penang and Langkawi are home to mangrove forests, which are believed to be relatively effective barriers to tsunamis (Barbier, 2006; Bird et al. 2007; Colbourne, 2005). Coastal destruction by tsunamis is reduced as the mangrove forests reduce wave amplitude and energy (Danielsen et al., 2005). Mangroves also minimize erosion and sedimentation effects (Colbourne, 2005). Risks to life and property are also reduced as it is simply impractical to build settlements there while the mangrove forest still stands (Colbourne, 2005). However, the scientific community has not yet reached a consensus (Kerr, 2007). Given that Penang is more developed than Langkawi, especially on the eastern side, the extra vegetation on Langkawi could at least have kept people out of the tsunami's reach.

Artificial coastal defenses are also present on Langkawi, such as the two rock revetments built to 2.7–3.0 m above sea level, present at Teriang Harbor (Bird et al., 2007). Coral reefs bordering the coast also decrease wave amplitudes (Browne, 2004). However, the closest coral reefs to Langkawi and Penang are around the island of Pulau Payar, which is too far away from both islands. Langkawi is also known for its 98 islands, which may have acted as wave breakers against the tsunami. However, the tsunami approached Langkawi from the west, and because the smaller islands are found predominantly to the north and the south of Langkawi, it seems unlikely, at first glance, that they helped reduce the tsunami's energy. On the other hand, as the wave refracts around Langkawi, locations that are not on the

western side may have suffered reduced damage due to the energy lost in the diffraction and wave breaker islands present. Despite that, the three islands Ko Ra Wi, Ko A Dang and Ko Ta Ru Tao, which are found approximately 8 to 36 kilometers to the north and west of Langkawi, could have broken the wave. Given that Penang only has two small islands to the east and south, this key difference may be a partial explanation.

CONCLUSIONS

At first glance, one could claim that the reduced damage that Langkawi suffered was due to the fact that the island has a smaller population and is less urbanized than Phuket or Penang. However, upon closer investigation, the characteristics of the tsunami as it struck the island were determined predominantly by bathymetry and landforms. As the tsunami travelled from the epicenter, it lost energy by diffracting around Sumatra. It then lost even more energy by entering the shallow Straits of Malacca. These factors explain why Malaysia was spared much destruction. Landforms explain why Langkawi was less than heavily damaged than Penang. Unlike Penang, Langkawi is surrounded by minor islands, with three larger ones in between the supposed path of the tsunami wave and Langkawi. These islands barriers will certainly have weakened the tsunami even more. Still, empirical and field data on the islands' landforms and barrier islands would help greatly in further evaluating this theory.

BIBLIOGRAPHY

Bagai, D.S. (2005). Tsunami Thailand: One Year Later. World Bank. Retrieved from *http://siteresources.worldbank.org/INTTHAILAND/ Resources/333200-1097667766090/2005-dec_tsunami_ one-year-later.pdf*

Barbier, E.B. (2006). Natural barriers to natural disasters: Replanting mangroves after the tsunami. *Frontiers in Ecology and the Environment, 4* (3), 124-131.

Bernard, E.N., Mofjeld, H.O., Titov, V., Synolakis, C.E., & González, F.I. (2006). Tsunami: Scientific frontiers, mitigation, forecasting and policy implications. *Philosophical Transactions: Mathematical, Physical and Engineering Sciences, 364* (1845),1989-2007.

Bird, M., Cowie, S., Hawkes, A., Horton, B., MacGregor, C., Ong, J.E., et al. (2007). Indian Ocean tsunamis: Environmental and socio-economic impacts in Langkawi, Malaysia. *Geographical Journal, 173* (2), 103-117.

Browne, A. (2004, Dec. 1). On Asia's coasts, progress destroys natural defences. *Wall Street Journal*. Retrieved from http://online.wsj.com/ article/0,,SB110443750029213098,00.html

Burton, C.K. (1972). Outline of the geological evolution of Malaya. *Journal of Geology, 80* (3), 293-309.

Colbourne, F.W. (2005). *Tsunami impact on the west coast of Penang, Malaysia*. Retrieved from Emporia State University Website: http://hydrogeology.emporia.edu/tsunami.pdf

Colbourne, F.W. (2007). *Langkawi - Geology*. Retrieved from: http://www.geoscience-environment.com/s771/ langkawi.htm

Danielsen, F., Sørensen, M.K., Olwig, M.F., Selvam, V., Parish, F., Burgess, N.D., et al. (2005). The Asian Tsunami: A protective role for coastal vegetation. *Science, 310*, 643.
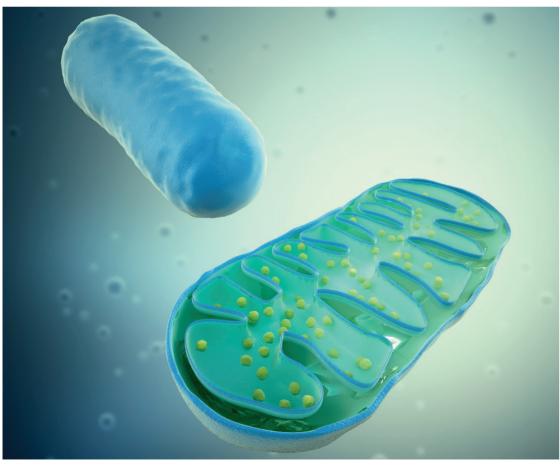
Kerr, E.M., & Baird, A.H. (2007). Natural barriers to natural disasters. *BioScience, 57* (2), 102-103.

Stewart, R.H. (2008). *Introduction to Physical Oceanography*. College Station, TX: Texas A & M University.

Tsunami travel time map for the 2004 Indian Ocean tsunami. (2007). Retrieved from *http://celebrating200years.noaa.gov/magazine/tsunami_ database/traveltimemap.html*

Mitochondrial Dysfunction as a Possible Key in Multiple Sclerosis

Nienke van Staveren

ABSTRACT

Multiple Sclerosis (MS) has been mainly considered as an inflammatory disease of the Central Nervous System (CNS) affecting mostly the white matter (WM). Inflammation would result in degeneration of chronically demyelinated axons, which would cause the progressive symptoms (Dutta et al., 2006). Lately, because of clinical inconsistencies, it has been proposed that MS possibly starts in the grey matter rather than in the white matter, suggesting a primary cyto-degenerative mechanism as initiating event rather than inflammation (Stys et al., 2012). Mitochondrial dysfunction contributes to neuronal degeneration, and energy failure and enhanced production of reactive oxygen species are known to be the key mechanisms in this dysfunctioning. Approaching MS as a primary progressive disease in which the assumed underlying degenerative process proceeds relatively unaltered by excess inflammation (Stys et al., 2012) might mean that we are on the way of understanding one of the key mechanisms in the precipitating event of the disease: neurodegeneration. Hence, changing the current perspectives from MS as a WM disease towards MS as, possibly, a GM disease will likely widen the current focus of MS-research and therapy and, thus, offers new possibilities for therapeutic designs.

Keywords: Multiple Sclerosis, Mitochondria, Mitochondrial dysfunction, Grey Matter, Inside-out Model.

Blurred vision, muscle weakness, numbness, pain, loss of coordination, cognitive impairment – these are just a few of the symptoms of Multiple Sclerosis, a progressive disease, mostly seen in Northern European countries. Much research has been conducted in the field of Multiple Sclerosis (MS), and it has been mainly considered as an inflammatory disease of the Central Nervous System (CNS) affecting mostly the white matter (WM). Over the years researchers assumed that the disease starts with an inflammatory reaction resulting in neurodegeneration, which would cause the progressive symptoms. However, in the summer of 2012, Stys et al. published an article in Nature Review Neuroscience in which they postulated that MS possibly starts in the grey matter rather than in the white matter. Considering this suggestion of a primary cyto-degenerative mechanism as initiating event rather than inflammation, this essay will examine the role of mitochondria in neurodegeneration in Multiple Sclerosis. This specific focus on mitochondria is grounded in the general importance of their dysfunction in diseases of the CNS and, more specifically, neurodegenerative disorders. In the scenario of MS being a grey matter disease the function of mitochondria in the progression of MS may be even more essential than initially thought.
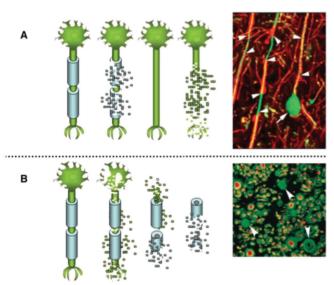
WHAT IS MS?

MS is generally considered to be an autoimmune, inflammatory disease of the CNS (Stys, Zamponi, Minnen, & Geurts, 2012, pp. 507), and a major cause of

the irreversible neurological disability in MS patients is the degeneration of chronically demyelinated axons (Dutta et al., 2006, p. 486). The initial cause of the disease, however, is unknown. What is known, is that the disease occurs more frequently in countries with temperate climates, and relatively more women suffer from it than men (Compstom, 2008). Worldwide there are about 2.5 million people suffering from MS, and up till today there is no found cure for the disease. Nonetheless, there are currently several anti-inflammatory treatment options available (Interferon Beta, Glatiramere Acetate (Copaxone), Fingolimod, Natalizumab) that slow down the progression of the disease and relieve some of its symptoms.

As Stys et al. (2012) state, MS may appear consistent with a primary autoimmune disease. For many years it was thought that it was a white matter illness. Numerous researches have shown that immune mechanisms play a key role in driving the disease process (Lassmann & Horssen, 2011), and accordingly it was thought that inflammation caused all the symptoms. As a result, research and therapies have been designed with the assumption of an inflammatory disease in mind. With the medication we have today, however, the inflammation can be slowed down quite well; but still, patients clinically deteriorate. Hence, it has been proposed that "MS might in fact be a degenerative disorder" (Stys et al., 2012, p. 507). In the article Will the Real Multiple Sclerosis Please Stand Up? Stys et al. further argue for and built on this proposal, suggesting an inside-out model of the disease rather than an ouside-in model. The inside-out model refers to the idea that first the axon degenerates, followed by inflammation and demyelination; the outside-in model refers to a situation where first the myelin is damaged and later, as a result, the axon degenerates (see figure 1). Notice that the review does not question the immunopathology of MS, over which there is little disagreement, the central question it addresses instead is "Which process is the initial trigger?'

Illustrated by the inside-out model, it is suggested that a primary cytodegenerative mechanism could be a "more plausible initiating event" (Stys et al., 2012, p. 513). It proposes that the initial malfunction occurs within the CNS, where primary cytodegeneration would be the initial event. The release of highly antigenic constituents would secondarily promote an autoimmune and inflammatory response, possibly further deriving degeneration (Stys et al., 2012). As the review mentions itself, it is unlikely that the mechanisms responsible for the start of the disease will soon be untangled (ibid.). However, changing the current perspectives from MS as a WM disease towards MS as, possibly, a GM disease will likely widen the current focus of MS-research and therapy and, thus, offer new possibilities for therapeutic designs. Additionally, with this opinion paper from Stys et al. (2012) in mind, the role of mitochondria in MS might be even more central than initially anticipated.

MITOCHONDRIA IN MS

Mitochondria, membrane bound organelles that carry out oxidative phosphorylation and produce most of the ATP in eucaryotic cells (Alberts, 2008), are an important lead to the cause of MS. A gathering body of evidence implicates an energy-deficient state in the pathogenesis of MS (Mahad et al., 2009; Lassmann, 2011; Campbell, 2012). The CNS is highly dependent on energy, in the form of ATP, for both functioning and structural maintenance (Campbell, 2012); the fact that mitochondria are the main suppliers of ATP in the human body makes them an important target in many neurodegenerative diseases but certainly also in MS research. Moreover, data showing striking similarities between the tissue alterations in active MS lesions and in fresh lesions of patients with an acute white matter stroke places energy deficiency "in the center of interest when discussing neurodegeneration in MS patients" (Lassmann & Horssen, 2011, p. 3718).

Research also showed that in acute and active lesions the first alterations in mitochondria are reflected by dominant loss of immunoreactivity of cytochrome C oxidase and by the loss of the respective complex IV activity in the mitochondrial respiratory chain (ibid.). Loss of complex IV activity disrupts the electron transport chain, and thus will result in an extensive decrease of ATP production in mitochondria. Contrastingly, in chronic inactive lesions "mitochondrial numbers and activity are increased" (Lassmann & Horssen, 2011, p. 3718) which reflects the higher energy demand of demyelinated axons. Accordingly, tissue injury due to these (contrasting) mitochondrial dysfunctions can be induced by three different mechanisms: the induction of apoptosis, energy failure, and enhanced production of reactive oxygen species (ROS) (Lassmann & Horssen, 2011).

In October 2012, M.E. Witte et al. published an article proving the relevance of the latter two mechanisms in the case of MS. It examined whether changes in transcriptional regulators of important mitochondrial proteins underlie mitochondrial dysfunction in MS cortex and, thus, contribute to neuronal loss (Witte et al., 2012). They focused on PGC-1Ð, a transcriptional co-activator and master regulator of mitochondrial function. By use of short-hairpin RNA-mediated silencing of PGC-1Ð they confirmed that reduced levels of PGC-1Ð result in "a reduced expression of oxidative phosphorylation subunits and a decrease in gene and protein expression of mitochondrial antioxidants and uncoupling proteins (UCPs) 4 and 5" (Witte et al., 2012, p. 231). Accordingly, silencing of PGC-1Ð resulted in a "decreased mitochondrial membrane potential, increased ROS formation, and enhanced susceptibility to ROS-induced cell death" (ibid). Hence, besides enhanced susceptibility to ROS-induced cell-death, the decreased membrane potential (created by both proton gradient and electro chemical gradient) enhances the effect of the, already, decreased proton gradient due to reduced expression of oxidative phosphorylation subunits, even further decreasing ATP synthesis. Importantly, then, they found "extensive neuronal loss in normal appearing gray matter (NAGM) from cingulate gyrus and frontal

Proposed 'outside-in' (A) and 'inside-out' (B) models of neurodegeneration in MS. The upper panel (above the dotted line) illustrates the outside-in model, i.e. inflammatory demyelination leading to secondary axonal swelling and degeneration (indicated by the arrow in the confocal microscopy image; arrowheads indicate partly demyelinated axons, *adapted from Trapp et al., N Engl J Med 1998, with permission*). The lower panel illustrates the inside-out model, where the axons selectively degenerate, followed by demyelination only in the secondary phase. The confocal micrograph (right lower panel) illustrates a section of spinal cord from an MS patient, where myelin is stained green and axons (neurofilament) are shown in red. Myelin profiles lacking ensheathed axons are indicated by arrowheads (*reprinted with permission from Bjartmar et al., Neurology 2001*). Whether such empty 'myelin ovoids' are due to degeneration of axons from a local insult or the result of axonal degeneration from an 'upstream' lesion (or a combination of both) is unknown. It is highly likely that both outside-in and inside-out pathogenetic mechanisms play a role in MS.

Figure 1: Geurts, 2009, p. 15

[1] MS is more common in Western countries, and it is hardly ever seen in countries close to the equator. A possible explanation could be the fact that the sun has higher intensity there resulting in a higher vitamin D-production.

[2] ROS are chemically reactive molecules containing oxygen. They are produced in the mitochondria as a byproduct during phosphorylation in the electron transport chain, and in bigger amounts they can be damaging to DNA, RNA, and other proteins (a situation which antioxidants normally prevent). Because of their damaging potential, excessive ROS formation will result in programmed cell death (apoptosis), a process in which mitochondria play a central role in signaling when a cell should be degraded and engulfed.

cortex of MS patients" which significantly correlated with the extent of decrease in PGC-1Ð (Witte et al., 2012, p. 231). Altogether, one can see the great importance of mitochondria in the pathology of MS.

IMPLICATIONS

Even within the initial view of MS, in which the disease begins with an immune dysregulation, these findings about mitochondria are valuable. As concluded from the data, "reduced neuronal PGC-1Ð expression in the MS cortex partly underlies mitochondrial dysfunction in MS grey matter and thereby contributes to neurodegeneration in MS cortex" (Witte et al., 2012, p. 231). These are important findings for MS research in general because neurodegeneration is the major cause of the symptoms of MS. Yet, considering the inside-out model proposed by Stys et al. makes these findings even more relevant. Approaching MS as a primary progressive disease in which the assumed underlying degenerative process proceeds relatively unaltered by excess inflammation (Stys et al., 2012) might mean that we are on the way of understanding one of the key mechanisms in the precipitating event of the disease: neurodegeneration. After all, as Lassman and Horssen (2011) put it, "the complex pathological alterations, which occur side by side within active MS lesions, can in principle be explained by a single mechanism, which involves mitochondrial injury and dysfunction" (p. 3718). This means that the inside-out model may allow treatment to move beyond just treating symptoms and towards attacking the actual cause.

Therapies thus far heavily relied upon experimental autoimmune encephalomyelitis (brain inflammation in mice). This strategy has been relatively successful for the inflammatory element of the disease, but it had, so far, little success in the development of neuro-protective therapies, which are also effective in the progressive stage of the disease (Lassmann & Horssen, 2011). Taking all the reviewed new insights into consideration, therapeutic designs will have some new areas to explore and will possibly find more successful cures. Research e.g. to the cause of the reduced expression of PGC-1Ð might lead to new insights on the actual cause of MS. Moreover, designing methods to reactivate PGC-1Ð will possibly offer ways to interfere with neurodegeneration in MS by reversing its dysfunction.

CONCLUSION

In summary, mitochondrial dysfunction contributes to neuronal degeneration. Energy failure and enhanced production of reactive oxygen species are the key mechanisms in this dysfunctioning. Yet, the initiation event of Multiple Sclerosis remains unknown. For years, researchers assumed that the disease started in the white matter as an autoimmune inflammatory disease. Accordingly, studies and therapeutic designs focused on understanding and attacking this autoimmune response. However, new insights reveal the possibility that the initial event takes place in the grey matter – possibly defining MS as a degenerative disease rather than an autoimmune disease and possibly explaining why treatment thus far has been merely effective in the inflammatory component of the disease and not in the progressive element. Although these are just assumptions, they allow for a more objective view and open pathways for alternative therapeutic designs focused on degeneration and, perhaps in particular, dysfunction of mitochondria. While the extensive research and achievements made in the field of inflammatory diseases as a result of research in MS thus far have been of great value in biomedicine, these new insights may finally have revolutionary potential in the fight against MS.

GLOSSARY
Antioxidants – inhibit the oxidation of other molecules, removing free radical intermediates
Lesion – any pathological or traumatic discontinuity of tissue or loss of function of a part.
ROS (reactive oxygen species) – chemically reactive molecules containing oxygen

---

REFERENCES

Alberts, B., Johnson, A., Lewis, J., Raff, M., Roberts, K., & Walter, P. (2008). *Molecular Biology of The Cell*. New York: Garland Science.

Campbell, G.R., Ohno, N., Turnbull, D.M., & Mahad, D.J. (2012). Mitochondrial changes within axons in multiple sclerosis: An update. *Current Opinion in Neurology, 25* (3), 221-230.

Compston, A. & Coles, A. (2008). Multiple sclerosis. *Lancet, 372* (9648), 1502–17.

Dutta, R., MacDonough, J., Yin, X., Peterson, J., Chang, A., Torres, et al. (2006). Mitochondiral dysfunction as a cause of axonal degeneration in multiple sclerosis patients. *Annals of Neurology, 59* (3), 478-489.

Geurts, J.J.G., Stys, P.K., Minagar, A., Amor S., & Zivadinov, R. (2009). Gray matter pathology in (chronic) MS: Modern views on an early observation. *Journal of the Neurological Sciences, 28* (1), 12–20.

Lassmann, H., & van Horssen, J. (2011). The molecular basis of neurodegeneration in multiple sclerosis. *FEBS Letters, Autoimmunity: Rheumatoid Arthritis & Multiple Sclerosis, 585* (23), 3715-3723.

Mahad, D.J., Ziabreva, I., Campbell, G., Lax, N., White, K., Hanson, P.S., et al. (2009). Mitochondrial changes within axons in multiple sclerosis. *Brain, 132*, 1161-1174.

Stys, P.K., Zamponi, G.W., Minnen, J. van, & Geurts, J.J.G. (2012). Will the real multiple sclerosis please stand up? *Nature Review Neuroscience, 13,* 507-515.

Witte, M.E, Nijland, P.G., Drexhage, J.A.R., Gerritsen, W., Geerts, D., van het Hof, B., et al. (2012). Reduced expression of PGC-1a partly underlies mitochondrial changes and correlates with neuronal loss in multiple sclerosis cortex. *Acta Neuropathologica, 125* (2), 231-243.

The Evolution of Altruistic Punishment

Simon Columbus

ABSTRACT

Altruistic punishment has been noted as a force in sustaining cooperation. The evolution of altruistic punishment, however, is hard to explain by natural selection. In this paper, we review the function, causation, and evolution of altruistic punishment. We find that altruistic punishment increases cooperation and, in the long term, total group welfare. Individual welfare, however, is decreased relative to non-punishing cooperation. Negative emotions, in particular anger, can be identified as a proximate cause of punitive behaviour. Cultural group selection has been proposed as an evolutionary pathway for individually non-adaptive altruistic punishment, and is supported by empirical findings.

I. INTRODUCTION

The human species has an outstanding ability to cooperate. To probe its nature, game theory models economic interactions in simple experimental settings. One reliable finding from this line of research is that cooperation breaks down in the absence of enforcement mechanisms (Fehr & Gächter, 2000; 2002). So-called "altruistic" punishment of defectors has been widely found to effectively sustain cooperation (Boyd, Gintis, & Bowles, 2010; Egas & Riedl, 2008; Gächter, Renner, & Sefton, 2008; Gürerk, Irlenbusch, & Rockenbach, 2006; Mathew & Boyd, 2011; O'Gorman, Henrich, & van Vugt, 2009; Ostrom, Walker, & Gardner, 1992) and is believed to be a key to understanding the evolution of cooperation (Botelho et al., 2005; Boyd & Richerson, 1992; Dreber et al., 2008; Eldakar & Wilson, 2008; Fehr & Fischbacher, 2003; Fehr & Rockenbach, 2004; Hauert et al., 2007; Henrich, 2006; Henrich & Boyd, 2001; Nowak & Sigmund, 2005; Ohtsuki, Iwasa, & Nowak, 2009; Panchanathan & Boyd, 2004; Rockenbach & Milinski, 2006; Ule et al., 2009). The evolution of altruistic punishment itself, however, poses an equally fascinating puzzle. This essay will therefore analyse the evolution of altruistic punishment within Tinbergen's (1963) classic ethological framework. The latter suggests that a coherent explanation of behaviour ought to answer four questions, referring to proximal causation, development (ontogeny), evolution (phylogeny), and survival value (function) of observed behaviour. This paper studies the causation, function, and evolution of altruistic punishment. We hypothesize that altruistic punishment increases cooperation and group pay-offs, but decreases individual pay-offs; that negative emotions are a proximate cause of punishment; and that punishment evolved by cultural group selection.

II. BEHAVIOURAL ECONOMICS STUDY THE CONTEMPORARY FUNCTION OF ALTRUISTIC PUNISHMENT

In behavioural economics and related experimental disciplines, altruistic punishment is frequently operationalised in two settings, using anonymous, one-shot Ultimatum games (UG) or more sophisticated, iterated Public Goods (PG) games (for an experimental protocol, see Fehr & Gächter, 2000; 2002). In UG, rejection of highly unfair offers—with a 80:20 or more skewed split—is common (Forsythe et al., 1994), and frequently half or more of such offers are turned down across a wide variety of cultures (Henrich et al., 2006). This form of altruistic punishment co-varies with pro-social behaviour in other games (ibid.; cf. Henrich et al., 2005). Indeed, unfair offers are rare—frequently, less than 20% of players offer an 80:20 or more skewed split (Forsythe et al., 1994; Henrich et al., 2006)—and less common than in Dictator games which do not allow for punishment (e.g. Forsythe et al., 1994), which indicates that most players expect unfair offers to be rejected. In PG games, although it has been shown that even solitary punishers can sustain cooperation

(O'Gorman, Henrich, & van Vugt, 2009), punishment is wide-spread, with up to 84% of players punishing at least once over ten rounds (Fehr & Gächter, 2002). The cost/benefit ratio of punishment poses a strong constraint, however, as punishment is only frequent for high (commonly 3:1) ratios (Egas & Riedl, 2008).

Altruistic punishment has a particular role in sustaining cooperation, as evidenced in PG games. In the absence of enforcement mechanisms, cooperation in PG games frequently breaks down after multiple iterations, although initial levels of cooperation, with investments at about 60% of players' endowments, are well above the zero-sum Nash equilibrium (Fehr & Schmidt, 1999; Fehr & Gächter, 2000). In contrast, a punishment option increases average contributions even in stranger (anonymous) treatments, and establishes near-perfect cooperation in partner (non-anonymous) treatments (Fehr & Gächter, 2000). Early studies found that most (74%, Fehr & Gächter, 2002) punishment is targeted at free-riders—i.e. players whose contribution lies below the group average. Cross-cultural studies, however, have since established that in some societies, anti-social punishment—i.e. punishment directed at average or above-average contributors—can be just as frequent as pro-social punishment (Herrmann, Thöni, & Gächter, 2008). High levels of anti-social punishment can effectively lead to the breakdown of cooperation (ibid.). In one study, anti-social punishment was associated with society-wide low adherence to civic norms and weak rule of law (ibid.) and in particular occurred in Arabic-speaking and Southern European cultures (Gächter, Herrmann, & Thöni, 2010).

There is considerable variation in punitive behaviour within subject pools, and studies indicate that players employ a wide variety of strategies. In a PG game without punishment condition, Fischbacher and Gächter classified players as conditional cooperators (55%), free-riders (23%), or triangle cooperators, whose contribution increases relative to that of the other players up to a point, then decreases again (12%); a large number of players (10%) could not be classified. A study by Ule et al. (2009), which allowed for both punishing and rewarding players, established as many as nine strategic categories along the axes of self/other-regarding and discriminate/indiscriminate behaviour; their frequency varied according to whether punishment was effective or merely symbolic. Notably, with reward also being

an option, punishment was much less frequent (13.2% vs. 56.6% in the harmful punishment condition). Socio-economic factors generally do not seem to explain differences in punitive behaviour (Henrich et al., 2006; although Egas & Riedl (2008) indicate older men punish more heavily).

Players' individual strategic choice has significant impacts on pay-offs, with punishers earning lower individual pay-offs than other players (Dreber et al., 2008; Ule et al., 2009). Indeed, despite its cooperation-enhancing effect, punishment seems to decrease total welfare (Fehr & Gächter, 2002; Gürerk, Irlenbusch, & Rockenbach, 2008; Herrmann, Thöni, & Gächter, 2008; Egas & Riedl, 2008; Dreber et al., 2008); however, Gächter, Renner, and Sefton (2008) have shown that this effect reverses over many iterations as deviations, and subsequent punishment, become less frequent.

III. PSYCHOLOGICAL MECHANISMS ARE PROXIMAL CAUSES ALTRUISTIC PUNISHMENT

The frequency of cooperative behaviour in economic games, including altruistic punishment, has informed models explicitly meant to replace the rationally self-interested homo economicus in mainstream economics. These models frequently maintain the rationality assumption, but posit a variety of social preferences. Fehr and Schmidt (1999) have proposed a utility curve that incorporates inequality aversion, i.e. a preference for equality among participants in a game. Indeed, subjects punished high earners in an anonymous give/take scenario without cooperation, and rewarded low earners (Dawes et al., 2007), which indicates that inequality aversion, rather than enhancement of cooperation, motivates punishment.

Negative emotional reactions have early been suggested as a mechanism for social preferences (Fehr & Gächter, 2002). Indeed, Dawes et al. (2007) find that players report being angry at high earners, which is also supported by skin conductance measures (van't Wout, Kahn, & Sanfey, 2006; Seip, van Dijk, & Rotteweel, 2009). In a study by Seip, van Dijk, and Rotteweel (2009), reported anger fully mediated the effect of perceived unfairness on punishment intensity, indicating a primacy of emotion over deliberate norm enforcement. Priming subjects with anger, too, increased punishment (ibid.). In line with Seip, van Dijk, and Rotteweel's (2009) finding that anger, rather than perceived unfairness,

predicts punishment, Knoch et al. (2006) showed that disrupting the right prefrontal cortex increased acceptance rates for unfair offers in the UG, but did not impact fairness ratings, i.e. dissociated fairness judgements and punishment. Jensen (2010) interprets previous findings to indicate that humans are, at least in part, motivated by spite, i.e. have negative social preferences. Concurrently, Houser and Xiao (2010) provide some support for the existence of inequality-seeking punishment.

Neurological measures appear to indicate a conflict between cognitive and emotional responses to unfairness underlying punishment. Among the brain areas frequently implicated in altruistic punishment are regions of the prefrontal cortex (PFC) such as the dorsolateral PFC (Strobel et al., 2011) and ventromedial PFC and medial orbitofrontal cortex (de Quervain et al., 2004), which play a role in cognitive control, as well as the insula, which has been proposed to be involved in the representation of negative emotional states (Sanfey et al., 2003; Strobel et al., 2011).

In a variety of studies using different protocols and methods, virtual lesioning of the right dlPFC decreased punishment (Knoch et al., 2006; 2008), and lower baseline activity in the rPFC predicted decreased punishment (Knoch et al., 2010). However, damage to the vmPFC was associated with increased punishment (Koenigs & Tranel, 2007). Intriguingly, Sanfey et al. (2003) reported that punishment followed lower activation in the dlPFC than in the insula, and vice-versa. They interpreted this finding as evidence for competition between cognitive processes underlying maximisation of monetary reward and the emotional anger response. However, these findings stand in stark contrast to most later studies showing a decrease in punishment following suppression of dlPFC activation.

Strobel et al. (2011) have suggested that the insula provides a bias signal to the striatum, which possibly represents anticipated satisfaction from punishing (de Quervain et al., 2004; Fehr, Fischbacher, & Kosfeld, 2005; Seymour, Singer, & Dolan, 2007; Strobel et al., 2011). The behavioural conflict that arises from contradictory emotional and cognitive motivations might be monitored and signalled in the anterior cingulate cortex (ACC, Sanfey et al., 2003; Strobel et al., 2011), and ventromedial and orbitomedial PFC have been proposed for the goal-

directed integration of these signals (de Quervain et al., 2004; Koenigs & Tranel, 2007; Seymour, Singer, & Dolan, 2007). These findings indicate that altruistic punishment involves both cognitive factors arising from expected monetary reward and emotional motivations stemming from the expected satisfaction derived from punishing. However, current evidence on neural substrata underlying altruistic punishment is sparse and should be considered preliminary.

IV. THE EVOLUTION OF ALTRUISTIC PUNISHMENT CAN BE EXPLAINED BY CULTURAL GROUP SELECTION

Findings that indicate social preferences are difficult to accommodate with standard gene- or individual-based evolutionary theory. The behaviour observed in economic games is true altruism in the sense that players who punish, increasing total welfare for the group in the long term (Gächter, Renner, & Sefton, 2008), incur relative losses for themselves. This has been taken by some as evidence for strong reciprocity (Gintis, 2000; Gintis et al., 2003). As Gintis defines it, "a strong reciprocator is predisposed to cooperate with others and punish non-cooperators, even when this behavior cannot be justified in terms of self-interest, extended kinship, or reciprocal altruism."

To explain the evolution of strong reciprocity, models of cultural group selection have been developed (e.g. Boyd & Richerson, 2009). It is presumed that culture allows for local adaptation at a rate faster than evolution by natural selection, which - if mixing between groups is infrequent - gives rise to heritable variation across groups. Then, this stable variation among groups leads to group selection, which means not necessarily the extinction of groups, but of cultural practices; in the end, cooperative (pro-social) practices prevail. Three mechanisms by which culture can spread are intergroup competition, human propensity to imitate the successful, and selective migration. By these means, cultural evolution would give rise to cooperative groups and create an environment in which, in turn, the evolution of traits that give an advantage in a social setting would be favoured. Boyd et al. (2003) specifically argue that cultural group selection can give rise to altruistic punishment. They show that if defectors are rare in a population, punishers have only a weak pay-off disadvantage compared to non-punishing cooperators. If cooperative groups have a higher survival rate

than non-cooperative groups in which punishers are absent, group selection would allow for punishment to spread.

Several empirical findings lend support to the propositions made by Boyd, Richerson, and their colleagues. The pay-off disadvantage of punishers indeed shrinks in the long term as defection and punishment become increasingly rare (Gächter, Renner, & Sefton, 2008). Gürerk, Irlenbusch, and Rockenbach (2006) show that sanctioning institutions have a competitive advantage, providing an experimental case of cultural group selection. Given the choice between two PG games with and without punishment condition, most participants initially choose the latter; but switch groups as it becomes apparent that cooperation breaks down without punishment. These two findings would seem to support two basic tenets of cultural group selection; however, it has to be noted that current experimental findings cannot reproduce human interactions before the evolution of altruistic punishment, and are thus of limited use when providing evidence for such evolutionary theories. One of the most important implications of Boyd et al.'s theory is that groups will have mixed populations, as neither all-cooperators nor all-punishers are evolutionary stable. Indeed, empirical findings (e.g. Ule et al., 2009) provide evidence that punishers make up only a fraction of any population. An interesting, related finding is that a subject's variant of the MAO-A gene dimorphism, which has been linked to aggression, predicts punishment (McDermott et al., 2009). This provides further support for diverse populations rather than a universality of punishment.

A particular challenge to Boyd et al.'s (2003; 2009) explanation of the evolution of altruistic punishment remains the fact that this behaviour creates a second-order collective action problem. It is not clear why punishers would not be replaced by cooperators-only who, with respect to punishment, are second-order free-riders. Reciprocal altruism, as proposed by Panchanathan and Boyd (2004), ultimately does not provide a solution. Lastly, the role of framing (Hagen & Hammerstein, 2006) remains an open question. The important role played by culture, emotions, and implicit as well as explicit game features, however, suggests that this role is not to be neglected.

REFERENCES

Botelho, A., Harrison, G. W., Pinto, L., & Rutström, E. E. (2005). Social norms and social choice. Working Paper, Universidade do Minho.

Boyd, R., Gintis, H., & Bowles, S. (2010). Coordinated punishment of defectors sustains cooperation and can proliferate when rare. *Science, 328*(5978), 617-20.

Boyd, R., Gintis, H., Bowles, S., & Richerson, P. J. (2003). The evolution of altruistic punishment. *Proceedings of the National Academy of Sciences of the United States of America, 100*(6), 3531-5.

Boyd, R. & Richerson, P. J. (1992). Punishment Allows the Evolution of Cooperation (or Anything Else) in Sizable Groups. *Ethology and Sociobiology, 13*, 171-95.

Boyd, R. & Richerson, P. J. (2009). Culture and the evolution of human cooperation. *Philosophical Transactions of the Royal Society of London. Series B, Biological Sciences, 364*(1533), 3281-8.

Buckholtz, J. W., Asplund, C. L., Dux, P. E., Zald, D. H., Gore, J. C., Jones, O. D., & Marois, R. (2008). The neural correlates of third-party punishment. *Neuron, 60*(5), 930-40.

Dawes, C. T., Fowler, J. H., Johnson, T, McElreath, R., & Smirnov, O. (2007). Egalitarian motives in humans. *Nature, 446*(7137), 794-6.

de Quervain, D. J.-F., Fischbacher, U., Treyer, V., Schellhammer, M., Schnyder, U., Buck, A. & Fehr, E. (2004). The neural basis of altruistic punishment. *Science, 305*(5688), 1254-8.

Dreber, A., Rand, D. G., Fudenberg, D., & Nowak, M. A. (2008). Winners don't punish. *Nature, 452*(7185), 348-51.

Eldakar, O. T. & Wilson, D. S. (2008). Selfishness as second-order altruism. *Proceedings of the National Academy of Sciences of the United States of America, 105*(19), 6982-6.

Elliott, C. S. & Hayward, D. M. (1998). The expanding definition of framing and its particular impact on economic experimentation. *Journal of Socio-Economics, 27*(2), 229-43.

Egas, M. & Riedl, A. (2008). The economics of altruistic punishment and the maintenance of cooperation. *Proceedings of the Royal Society. Series B, Biological Sciences, 275*(1637), 871-8.

Fehr, E. & Fischbacher, U. (2003). The nature of human altruism. *Nature, 425*(6960), 785-91.

Fehr, E., Fischbacher, U., & Kosfeld, M. (2005). Neuroeconomic Foundations of Trust and Social Preferences: Initial Evidence. *The American Economic Review, 95*(2), 346-51.

Fehr, E. & Gächter, S. (2000). Cooperation and Punishment in Public Goods Experiments. *The American Economic Review, 90*(4), 980-994.

Fehr, E. & Gächter, S. (2002). Altruistic Punishment in Humans. *Nature, 415*(6868), 137-40.

Fehr, E. & Schmidt, K. (1999). A Theory of Fairness, Competition, and Cooperation. *The Quarterly Journal of Economics, 114*(3), 817-68.

Gächter, S., Herrmann, B., & Thöni, C. (2010). Culture and Cooperation. *Philosophical transactions of the Royal Society of London. Series B, Biological sciences, 365*(1553), 2651-61.

Gächter, S., Renner, E., & Sefton, M. (2008). The long-run benefits of punishment. *Science, 322*(5907), 1510.

Gürerk, O., Irlenbusch, B., & Rockenbach, B. (2006). The competitive advantage of sanctioning institutions. *Science, 312*(5770), 108-11.

Hagen, E. H. & Hammerstein, P. (2006). Game theory and human evolution: a critique of some recent interpretations of experimental games. *Theoretical Population Biology, 69*(3), 339-48.

Hauert, C., Traulsen, A., Brandt, H., Nowak, M. A., & Sigmund, K. (2007). Via freedom to coercion: the emergence of costly punishment. *Science, 316*(5833), 1905-7.

Henrich, J. (2006). Cooperation, punishment, and the evolution of human institutions. *Science, 312*(5770), 60-1.

Henrich, J. & Boyd, R. (2001). Why people punish defectors. Weak conformist transmission can stabilize costly enforcement of norms in cooperative dilemmas. *Journal of Theoretical Biology, 208*(1), 79-89.

Henrich, J., McElreath, R., Barr, A., Ensminger, J., Barrett, C., Bolyanatz, A., Cardenas, J. C., Gurven, M., Gwako, E., Henrich, N., Lesorogol, C., Marlowe, F. W., Tracer, D., & Ziker, J. (2006). Costly punishment across human societies. *Science, 312*(5781), 1767-70.

Herrmann, B., Thöni, C., & Gächter, S. (2008). Antisocial Punishment Across Societies. *Science, 319*(5868), 1362-7.

Houser, D. & Xiao, E. (2010). Inequality-seeking Punishment. *Economics Letters, 109*(1), 20-23.

Jensen, K. (2010). Punishment and spite, the dark side of cooperation. *Philosophical transactions of the Royal Society of London. Series B, Biological sciences, 365*(1553), 2635-50.

Knoch, D., Gianotti, L. R. R., Baumgartner, T., & Fehr, E. (2010). A neural marker of costly punishment behavior. *Psychological Science, 21*(3), 337-42.

Knoch, D., Pascual-Leone, A., Meyer, K., Treyer, V., & Fehr, E. (2006). Diminishing reciprocal fairness by disrupting the right prefrontal cortex. *Science, 314*(5800), 829-32.

Koenigs, M. & Tranel, D. (2007). Irrational economic decision-making after ventromedial prefrontal damage: evidence from the Ultimatum Game. *The Journal of Neuroscience, 27*(4), 951-6.

Mathew, S. & Boyd, R. (2011). Punishment sustains large-scale cooperation in prestate warfare. *Proceedings of the National Academy of Sciences of the United States of America, 108*(28), 11375-80.

McDermott, R., Tingley, D., Cowden, J., Frazzetto, G., & Johnson, D. D. P. (2009). Monoamine oxidase A gene (MAOA) predicts behavioral aggression following provocation. *Proceedings of the National Academy of Sciences of the United States of America, 106*(7), 2118-23.

Nowak, M. A. & Sigmund, K. (2005). Evolution of indirect reciprocity. *Nature, 437*(7063), 1291-8.

O'Gorman, R., Henrich, J., & Van Vugt, M. (2009). Constraining free riding in public goods games: designated solitary punishers can sustain human cooperation. *Proceedings of the Royal Society. Series B, Biological Sciences, 276*(1655), 323-9.

Ohtsuki, H., Iwasa, Y., & Nowak, M. A. (2009). Indirect reciprocity provides only a narrow margin of efficiency for costly punishment. *Nature, 457*(7225), 79-82.

Ostrom, E., Walker, J., & Gardner, R. (1992). Covenants With and Without a Sword: Self-Governance is Possible. *The American Political Science Review, 86*(2), 404-417.

Panchanathan, K. & Boyd, R. (2004). Indirect reciprocity can stabilize cooperation without the second-order free rider problem. *Nature, 432*(7016), 499-502.

Rockenbach, B. & Milinski, M. (2006). The efficient interaction of indirect reciprocity and costly punishment. *Nature, 444*(7120), 718-23.

Sanfey, A. G., Rilling, J. K., Aronson, J. A, Nystrom, L. E., & Cohen, J. D. (2003). The neural basis of economic decision-making in the Ultimatum Game. *Science, 300*(5626), 1755-8.

Seip, E. C., van Dijk, W. W., & Rotteveel, M. (2009). On hotheads and Dirty Harries: the primacy of anger in altruistic punishment. *Annals of the New York Academy of Sciences, 1167*, 190-6.

Seymour, B., Singer, T., & Dolan, R. (2007). The Neurobiology of Punishment. *Nature reviews. Neuroscience, 8*(4), 300-11.

Strobel, A., Zimmermann, J., Schmitz, A., Reuter, M., Lis, S., Windmann, S., & Kirsch, P. (2011). Beyond revenge: neural and genetic bases of altruistic punishment. *NeuroImage, 54*(1), 671-80.

Tinbergen, N. (1963). On aims and methods of Ethology. *Zeitschrift für Tierpsychologie, 20*(4), 410-33.

Tversky, A. & Kahneman, D. (1981). The framing of decisions and the psychology of choice. *Science, 211*(4481), 453-8.

Ule, A., Schram, A., Riedl, A., & Cason, T. N. (2009). Indirect punishment and generosity toward strangers. *Science, 326*(5960), 1701-4.

van't Wout, M., Kahn, R. S., Sanfey, A. G., Aleman, A. (2006). Affective state and decision-making in the Ultimatum Game. *Experimental Brain Research, 169*(4), 564-8.

Dual Nationality and Renunciation: A Citizen's Right

Sanne L. Groothuis

ABSTRACT

Due to the ever-increasing globalization of our age, migration has become a prominent issue for many governments across the world, and with it come questions about the meaning of citizenship and its influence on individuals' identity. Nowadays individuals are likely to encounter problems, when aspiring to have dual nationality or to renounce one nationality if they are in the possession of more. These problems represent the still unchanged view of many governments on the meaning of citizenry and on what nationality signifies for the identity of an individual. By exploring the view of egalitarian liberalism and communitarianism on what citizenship constitutes, and by synthesizing both perspectives, a new meaning of citizenship is created that is compatible with the current age of globalization. This new definition of citizenship allows individuals to possess dual nationality and to renounce a nationality if they have more than one; based on the right to of individuals to have one's own conception of the good. The new meaning of citizenship calls upon governments to reconsider the interpretation of nationality in the beginning of the 21st century, and to recognize the needs and identities of 'globalized' citizens.

Keywords: dual nationality; renunciation; citizenship; identity; conception of the good

In the 21st century, globalization affects people across the entire globe. International connections and relations between countries, organizations, corporations, and individuals, improved infrastructure, and other factors have created an improved possibility of migration, and sometimes even the need for citizens to migrate, for example due to work obligations. Migration flows have become increasingly common, and this relatively new trend raises several important questions and issues, one of them being citizenship. Long-term migration often involves naturalization, and the attainment of a new nationality. If immigrants become citizens, they can aspire to have dual nationality, yet some states, such as Japan or Norway, do not allow their citizens to have dual nationality ("Nationality Law," 1950; "Citizenship Act," 2005). According to Renshon (2001), being a citizen implies being loyal to the specific country. By being a citizen of several countries, one would thus be loyal to multiple realms, which could create a problem in times of conflict between these states, or even when the values underlying social and judicial rules are incompatible. Furthermore, even if an individual claims to be loyal solely to the country of residence, the shadow of insecurity about the truthfulness of this claim is hard to remove when renunciation of the original nationality is practically impossible, which is currently the case in Morocco (Perrin, 2011). Both issues address the meaning of citizenship and identity, as claims against the freedom of having dual nationality and against renunciation of citizenship

are based upon certain perceptions of what it means to be a citizen.

Globalization and the contemporary international flow of people raise questions about what it currently means, or should mean, to be a citizen and what rights these citizens have, or should have, regarding their identity, especially the part of their identity that confines them to a particular country, or in some cases, multiple countries.

This paper will focus on a specific part of the current debate surrounding loyalty and dual nationalities; namely, on whether citizens should have the right to renounce one of their citizenships if they are in the possession of more than one, and if they should have the right to retain their original citizenship when they are acquiring a second one. In other words, this paper will discuss if citizens should have the right to acquire dual nationality and, if so, whether they should have the right to decide if they retain both nationalities.

Based on the combination of two theoretical perspectives on the meaning of citizenship, and on the issues connected to it, such as the public good and the rights of the government concerning membership and admission, this paper will argue in favor of the right of citizens to have dual nationalities and to renounce a nationality if a person is a citizen of more than one country. Nationality and citizenship are used interchangeably in this paper, meaning a citizen is "a legally recognized subject or national of a state or commonwealth, either native or naturalized" ("Citizen," 2010). First, John Rawls' first principle of justice will be explored as the basis of the liberal conception of citizenship, to connect it to the related view of the concept of the good and rights of the government regarding the citizenship of their subjects. In this paper the term liberalism refers to the egalitarian liberalism initiated by Rawls' *Theory of Justice* (1971), focusing on the rights of individuals in a society regarding their liberty and social and economic equality. Second, the conception of citizenship of communitarians will be discussed by exploring Michael Walzer, and by relating this conception to the communitarian view of the public good and relevant government's rights. Communitarianism, in contrast with liberalism, focuses on social responsibility and the community in a country, and hereby emphasizes on not only the rights, but also the duties of citizens. By synthesizing

these two different perspectives, a more complete and substantial image of citizenship will be formed by employing Chantal Mouffe's arguments. This perspective on citizenship supports the claim of this paper by arguing for more conscious decisions by individuals regarding their citizenship(s) as long as they are in the position to make such decisions. Additionally, critique against the claims supported in this paper will be deliberated. The current Moroccan law and customs regarding renunciation of citizenship, combined with the current Dutch law regarding dual nationality will be used to illustrate the more traditional meaning of citizenship, namely, being loyal to one country, and the meaning of citizenship argued for in this paper, namely the idea that individuals have their own conception of the good, and are capable of being loyal or two or more countries.

First, according to Rawls, there are two principles of justice that would have been agreed to in the original position, a thought experiment in which everyone creating the principles of justice would have been under a veil of ignorance, so that they would have been unaware of their own position in society— (1971, p. 60). The first of these principles states: "each person is to have an equal right to the most extensive basic liberty compatible with a similar liberty for others" (Rawls, 1971, p. 60). Rawls elaborates on this principle by clarifying what this "most extensive basic liberty" according to him entails, namely political rights, such as the right to vote and be elected; the freedom of speech; assembly; conscience; thought; and of the person; as well as the freedom to hold property and "freedom from arbitrary arrest and seizure as defined by the concept of the rule of law" (p. 61).

As can be derived from his description of the first principle of justice, Rawls views a citizen as a legal individual who holds certain rights against the government. One of these rights resulting from the combination of basic liberties such as freedom of thought, conscience, speech, and assembly, is the right and capacity of each individual to form one's own conception of the good (Mouffe, 1992, p. 226). For the government, this implies that they cannot infringe a certain conception of the good upon their citizens. However, being a citizen means being a member of a certain political community, which

implicitly and inevitably upholds certain values. More explicitly, there are always values underlying the political, social, economical, cultural, and judicial system, which together can form a certain view of the good. For example, underlying the law that you cannot steal are, amongst others, the values that people are entitled to have property, and that it is wrong to take the property of someone else without that person agreeing to it. A government cannot avoid bestowing these kinds of values upon its citizens, because rules are needed to create order and protect rights, and they have to be legitimized by basing them on certain principles or arguments. However, a government can avoid imposing these values on its citizens by allowing them to express another perception of the good, for example, by allowing dual nationality or renunciation of citizenship. From the liberal perspective, a government would infringe upon basic liberties of individuals if it would restrict them in either expressing a more complex conception of the good by having multiple nationalities, or by enforcing a nationality through prohibiting renunciation of that nationality, because it would mean that the government enforces a certain conception of the good upon that individual.

This liberal notion of the government and the good strongly contrasts the communitarian conception of the good, which is heavily related to their view on citizenship. According to communitarians, being a citizen means that citizens have a loyalty to the public good, prior to their loyalty to desires and interests, although they may overlap (Etzioni, 1996, p. 10; Mouffe, 1991, p. 226). This means that a citizens is obliged in a certain way to confine to the common notion of the good; the common good. According to Walzer, a communitarian thinker, the common good is created through the rules of the admission policy, which in turn is created by members of a community, or in this case, citizens of a state (1983, p. 32). Walzer

argues that the right to choose whom to include, or, alternatively, exclude from the state is one of the most basic rights of citizens, because it defines their community and its values (pp. 31, 32).[1] Having dual nationalities thus means being loyal to more than one specific community, its values, and its perception of the good, which is almost inconceivable. For example, consider someone with both a Moroccan and a Dutch citizenship. According to a dominating value in Moroccan society, the individual is always subordinate to the family or group ("Customs and Traditions," n.d.; "Morocco – Language, Culture and Doing Business," 2004). However, modern Dutch society is generally individualized, and thus the individual will customarily be considered more important than the group (Veenhoven, 2000). These values, or parts of the conception of the good, are thus incompatible when taken to the extreme, as an individual's needs and interests cannot be considered as most important when the group has highest priority. Although some values can be similar, each country has its own interests, which means that there will always be parts of different citizenships that conflict, and consequently the individual has to choose to which country he/she is loyal when considering those issues.

In addition to his argument about admission policies, Walzer argues that the right to control immigration does not mean that the state also has a right to control emigration (1983, p. 39). He supports his claim by arguing that "[t]he restraint of exit replaces commitment with coercion" (p. 39). If individuals wish to leave their country, it is implicitly clear that they no longer feel affiliated with the country in such a way that they wish to commit to it or defend it (Walzer, p. 39). If they are coerced to commit to this country, the enforcement will in turn create even more negative feelings towards the country, and will thus be counter effective. Walzer consequently claims that "states cannot prevent such people from

---

[1] It must be noted that, according to Walzer, this admission policy has some external obligations casted onto it by the principle of mutual aid. Since I am assuming (and a proponent of the view) that individuals with a dual nationality will be treated equally to citizens with one nationality, this is not relevant for the current discussion. It will therefore be left unexplored in the main paper. For more information on Walzer's view on the principle of mutual, what it constitutes, and how it interferes with a state's admission policy, review his chapter on membership in his book Spheres of Justice: A Defense of Pluralism and Equality (1983).

getting up and leaving" (p. 39).[2] Although permitting citizens to leave a country does not directly imply that a government has no right to forbid citizens to renounce their nationality, the arguments used to support the first claim are valid for the latter as well. If a government forces an individual to keep its nationality while this individual actually wants to give it up, more negative feelings toward the community will be created. The aim of the government to create commitment will be counteracted by the way this aim is being achieved.

Both the liberal view on citizenship and the communitarian view on citizenship have certain fallacies. The critique of communitarians on the liberal insight is that it impoverishes the meaning of citizenship; being a citizen in this view merely means having certain rights, it does not mean being part of a community (Mouffe, 1992, p. 226). It disregards that individuals can join forces to achieve common interests. Communitarians, on the other hand, place too much emphasis on these common interests; they overemphasize a common perception of the good and thereby disregard the possibilities of other perspectives. Nevertheless, combining the two can create a strong and substantial meaning of citizenship, which is compatible with having multiple nationalities and the right to renounce a nationality if the citizen is in possession of more than one.

    Although they seem incompatible, Mouffe explains that this is a "false dichotomy between individual liberty and rights on one side and civic activity and political community on the other" (1992, pp. 230, 231). She argues that the common good as viewed in communitarianism should be perceived as a common bond, namely a "public concern", instead of common norms and values (p. 233). Engaging with Rawls' principles, Mouffe argues that there can be, and should be, multiple conceptions of the good, but that merely by being a citizen, one recognizes a common "set of ethico-political values" (p. 235). For example, a Dutch citizen, due to his or her Dutch

nationality, will have to show respect for the laws enforced in the Netherlands, and will respect the values that inspire these laws, such as: it is wrong to take the property of someone else. By changing the common view of the communitarian perspective of the good to a common bond, communitarianism becomes compatible with liberalism. Although there is a common recognition of the rules enforced in a state, a citizen can be involved in "different purposive enterprises" with different conceptions of the good (Mouffe, 1992, p. 235). Furthermore, the addition of commitment to public concern to the liberal view enriches its concept of citizenship, because it adds identification with the country the citizen is a member of, instead of merely defining citizenship as the right to receive certain things (p. 235). Together they create a strong and meaningful notion of citizenship that constitutes both individual liberty and rights, and commitment to a political community, without restricting individuals to solely one perception of the good (Mouffe, pp. 230, 231).

When committing to this substantial meaning of citizenship that combines the two perspectives, the right of individuals to be able to have several nationalities and to be able to renounce a nationality when in the possession of two, is supported, because citizens should be allowed to have multiple concepts of the good and because an individual's nationality defines part of his or her identity, thus being something that he or she should be allowed to choose for him or herself. First of all, this is because individuals are entitled to adhere to multiple conceptions of the good, for example, the Moroccan value of family and the group, and the Dutch value of the individual and his or her capabilities ("Morocco – Language, Culture and Doing Business," 2004; Veenhoven, 2000). They can be combined by making the capabilities of the individual strengthen the group's feelings and ability to achieve something, thereby recognizing the individual capabilities as well the interests of the group. In this case, both

values become important, but for this to be feasible it needs to be possible to see both as (almost) equally important. If a citizen wishes to express these multiple conceptions of the good by having dual nationality, governments should not restrict this, for it is a right of citizens to have their own conception of the good. However, by having several nationalities, the individual has to recognize the ethico-political values of all countries of which it is a citizen and commit to the political community, because citizenship is not merely about receiving rights. Difficulty arises when the ethico-political values of countries contradict. How can a citizen respect two contradicting principles at the same time? Individual liberty means that individuals should be able to express his or her view on the relevant issue, but for the necessary existence of order, citizens should adhere to the rules of the country of residence.[3] Furthermore, because citizenship is not merely about receiving rights, but also about recognizing the values underlying the laws of your country and political commitment, citizens should be able to renounce the affiliation with these values if they wish to do so while being in possession of another nationality. If not, a part of the conception of the good, and thus of the citizens' identity is enforced and its right to association is impeded upon. In short, since citizenship can partly define an individual's identity, and he or she should have the freedom to express the feeling they have about their identity, individuals should be able to have (partial) control over his or her citizenship. Moreover, decisions about nationality should be made consciously. Nonetheless, acquiring and renouncing citizenship should not be easy; these decisions should be made consciously and with motivation. Issues regarding citizenship should thus require effort in order to stimulate individuals to make conscious and motivated decisions; however, the existence of the possibility of making these decisions is essential.

Now that the argument for this new definition of citizenship, and thus for the existence of dual citizenship and the possibility of renouncing

citizenship has been discussed, the arguments of the opponent's of dual nationality will be debated. The central claim against dual nationality is that is nullifies the meaning of citizenship (Renshon, 2001). If a second nationality can be acquired without being required to abandon anything meaningful, such as job opportunities, citizenship becomes something that brings benefits without demanding costs and can be discarded when it is no longer beneficial (Brown, 2002). Additionally, being loyal to multiple countries at the same time is seen as impossible, because each country has different rules, values underlying these rules, and different values underlying the social, economical, cultural, political and judicial system.

    However, these arguments all seem to be based on a more traditional understanding of citizenship, which did not yet take into account the current trend of globalization, and especially the increasing migration flows. Due to these processes citizens can feel association and even loyalty to multiple countries. For example, second generation immigrants have often gained appreciation for the values present in their parent's country, as well as for the values of the society they currently live in. Furthermore, based on the definition of citizenship proposed in this paper, citizens should make a conscious decision about which country he or she feels connected with, because it requires effort and commitment to be a citizen.

    To illustrate factors related to the theoretical claim of this paper, both the Moroccan law and customs and the Dutch law regarding nationality will be discussed. Although the Moroccan law (art. 19-1) allows a Moroccan citizen to request renunciation of his or her citizenship, in practice this proves to be very difficult to fulfill (Perrin, p. 17). Morocco upholds the "principle of perpetual allegiance" (p. 17), meaning that once you are Moroccan, you are expected to always be loyal to Morocco. Additionally, the procedure to renounce Moroccan citizenship is very long and seems unsuccessful (p. 17). In theory, it is possible for a Moroccan citizen to renounce its nationality, yet in practice this proves to be very difficult. While

---

[2] Walzer adds a requirement to his claim, namely: "[e]xept in times of national emergency, when everyone is bound to work for the survival of the community" (1983, p. 39). Since I would here like to focus on the basic question of whether a government can justly prohibit its citizens to renounce their nationality, discussion of additions and requirements to the answer seem more appropriate for an additional paper, once the basic question has been thoroughly discussed.

[3] This topic inspires questions about when an individual is allowed to disobey certain rules, but since the highly debated topic of civil disobedience is not solely confined to citizens with dual nationality I will not delve further into this issue. For reading on this issue, see, amongst others, chapter 7, "Taking Rights Seriously" of the book Taking Rights Seriously by Ronald Dworkin (1997).

there has been a small reform in 2007 in order to establish a simplified procedure for renunciation of "mixed couples' children born to a Moroccan mother" by article 19 (p. 17), the difficulties with renunciation still remain for the vast majority of Moroccan citizens. This has created problems for Moroccans residing and wanting to integrate in other countries, such as, but not limited to, the Netherlands. The Dutch government usually requires its applicants for naturalization to renounce their original citizenship, although it allows for exceptions when this proves to be very difficult, as in the Moroccan case (p. 21). On the second of March, 2012, the Dutch government agreed to a proposal that complicates acquiring or retaining dual nationality in the Netherlands ("Wetsvoorstel: Stengere Eisen voor Naturalisatie," 2012). Except for individuals for whom this is impossible, the Dutch government requires people to renounce their original nationality if they want to become Dutch citizens ("Wetsvoorstel: Stengere Eisen voor Naturalisatie," 2012). Both Moroccan and Dutch law and customs impede on the right of individuals to form and express their own identity, that is, their right to choose their own conceptions of the good by deciding about their nationalities. Moroccan law enforces certain values upon its citizens by not allowing renunciation of the Moroccan nationality, thereby enforcing a conception of the good on Moroccans, whereas Dutch law restricts individuals in their conception of the good by forcing them to choose between nationalities, which impedes on their right to define for themselves what the good constitutes and with which values they wish to identify themselves. If both Morocco and the Netherlands would implement the definition of citizenship argued for in this paper, a Moroccan Dutch individual would have the possibility to define for himself which country he feels associated with, and thus which conceptions of the good are part of his identity. Conscious and motivated commitment would underlie his decision, because acquiring and sustaining citizenship would take considerable effort through loyalty and recognition, and renouncing citizenship would mean that one loses substantial participation in the applicable country.

In short, the combination of the liberal and communitarian perspectives on citizenship, constituting a stronger and more substantial meaning of citizenship, advances persuasive arguments

for the rights of individuals to decide to which country, or countries, they belong by means of their citizenship, provided that the individual is accepted as a citizen by the government of both states. By being entitled to certain basic liberties and rights, based on Rawls' first principle of justice, individuals should be allowed to have their own perception of the good, or multiple conceptions of the good (1971). Because citizenship defines part of the individuals' identity by means of association, citizens should have the possibility to identify themselves with multiple countries. Additionally, because being a citizen means being committed to certain ethico-political values, prohibiting citizens to renounce the evidence that they are part of this view has created a bigger evil. Moreover, Walzer's argumentation on why a state cannot control emigration can be extended to explain why a government cannot control whether or not a citizen renounces his or her nationality, because it transforms commitment in coercion, thereby annihilating the purpose (1983).

The claim made in this paper calls upon governments to reconsider what it means to be a citizen in the twenty-first century, in which globalization and the combining, and sometimes merging, of values are more apparent every day, and to recognize the needs of 'globalized' individuals who feel attached to more than one country or who can lose their feeling of affiliation with a country.

REFERENCES

Brown, G. (2002). Political bigamy?: Dual citizenship in Australia's migrant communities. *People and Place, 10*(1), 71-78.

Citizen. (2010, April). *Oxford Dictionaries Online*. Retrieved from the Oxford Dictionaries website: http://oxforddictionaries.com/definition/english/citizen?q=citizen

Customs and traditions (n.d.). Retrieved December 3rd, 2012, from the Gouvernement du Royaume du Maroc website: http://www.maroc.ma

Etzioni, A. (1996). The responsive community: A communitarian perspective. *American Sociological Review, 61*(1), 1-11.

Morocco: Language, culture and doing business. (2004). Retrieved December 3rd, 2012, from the Kwintessentials website: http://www.kwintessential.co.uk/

Mouffe, C. (1992). Democratic citizenship and the political community. In C. Mouffe (Ed.), *Dimensions of radical democracy* (pp. 225-239). London, UK: Verso.

Law on Norwegian citizenship (Citizenship Act), 2005-06-10 #51, Ch. 3 §10, Ch. 5 §1. Retrieved from the Ministry of Children, Equality and Social Inclusion website: http://www.regjeringen.no/

Perrin, D. (2011, October). *Country report: Morocco*. Retrieved from the European Union Democracy Observatory on Citizenship website: http://eudo-citizenship.eu

Rawls, J. (1971). Two spheres of justice. In *A theory of justice* (pp. 60-65). Harvard, UK: Harvard University Press.

Renshon, S. A. (2001). *Dual citizenship and American national identity*. Washington DC, USA: Center for Immigration Studies. Retrieved from Center for Immigration Studies website: http://www.cis.org

The Nationality Law (Law No. 147 of 1950). Article 5, section 5. Retrieved from the Ministry of Justice of Japan website: http://www.moj.go.jp/

Veenhoven, R. (2000). Individualisme zo slecht nog niet. *Psychologie Magazine, 19*(1), 12-15.

Walzer, M. (1983). Membership. In *Spheres of justice: A defense of pluralism and equality* (pp. 31-63). New York, USA: Basic Books. ISBN 0-465-08189-4

Wetsvoorstel: Strengere eisen voor naturalisatie. (2012, March 2). Retrieved from the Rijksoverheid website: http://www.rijksoverheid.nl/onderwerpen/nederlandse-nationaliteit/nieuws/2012/03/02/wetsvoorstel-strengere-eisen-voor-naturalisatie.html

Burning Man: Collective Identity and Framing in the Self-immolations of Thich Quang Duc and Mohamed Bouazizi

Tess Czerski

ABSTRACT

This paper seeks to determine how self-immolation as an act of protest can be applied to social movement theory. The paper will compare the self-immolation of Thich Quang Duc in 1963 and Mohamed Bouazizi in 2010, who protested against the repression of Buddhists in Vietnam and Tunisia's corruption respectively. By the means of a literature review of both academic as well as newspaper articles, these self-immolations will function as case studies to leading articles in social movement theories, i.e., Poletta and Jasper (2001) on collective identity and Benford and Snow (2000) on framing. This paper will argue that protests following these protest-suicides created a collective identity based on the framing of the social conditions that led to these suicide acts. By framing both Quang Duc and Bouazizi as victims of government a collective identity amongst protesters was created, however, whereas Quang Duc represented a suppressed belief system, Bouazizi was framed as a victim of Tunisia's corruption. Their self-immolations have thus been framed in two ways: through diagnostical framing, the victims of societal problems in these countries were represented, and through motivational framing, citizens were called for action against repression. This paper may serve to better understand the significant function of framing and collective identities to social protests.

Keywords: social movement theory, collective identity, framing, protests, Arab Spring, Vietnam War

Self-immolation, the act of committing suicide in a public sphere, may be one of the most startling to the public, as the victim usually suffers from a slow and painful death. One recent self-immolation that attracted much attention from the media was the self-immolation of Tunisian shopkeeper Mohamed Bouazizi, 26 years old, on 17 December 2010. Protesting the difficulties that he – and with him, many other Tunisians – experienced in finding a steady job due to Tunisia's corruption, Bouazizi literally set fire to the Tunisian revolution and later the Arab Spring (Ryan, Al Jazeera, 2011, January 26). Bouazizi's self-immolation is reminiscent of Thich Quang Duc's protest in 1963, when the Vietnamese Buddhist monk set himself on fire to protest the Diem regime in Vietnam. These dramatic public suicides received considerable media attention through the publication of photos, news articles and documentaries, and inspired many to demonstrate their suppressive regimes. Apparently, these public suicide acts were just the right expression of anger or powerlessness to incite collective action against societal problems, or, more specifically, oppressive regimes.

This paper seeks to compare these two dramatic examples of protesting through self-immolation, in particular how these protests where framed and how this framing has created a collective identity for the protesters. In this way, this paper will determine how self-immolation as a form of protesting attracts attention and is subsequently taken up by a group,

who create a collective identity around the act and glorifies self-immolators, regarding them as a symbol for their societal struggles. Particularly, these self-immolations will be connected to social movement theories, relating the suicides to Benford and Snow's (2000) theory on framing and Polletta and Jasper's notion of collective identity (2001). First, this paper will provide a literature review of these articles, interconnecting framing (Benford & Snow, 2000) with collective identity (Poletta & Jasper, 2001). Then, after providing the reader with the general debate regarding self-immolation, this paper will discuss the self-immolations of both Quang Duc and Bouazizi separately, and in relation to these social movement theories. In the conclusion, these two protest-suicides will be contrasted, seeking to find patterns in the framing and constructing of a collective identity around the acts.

FRAMES AND COLLECTIVE IDENTITY:
A LITERATURE REVIEW
The self-immolative acts by Quang Duc and Bouazizi show connections with established social movement theories, since the protesters that took up these acts framed them as victims of the state and produced a collective identity around their deaths (Poletta & Jasper, 2001; Benford & Snow, 2000). Hence, framing and collective identities are inherently interconnected with each other. This section provides an overview of these theories, which will be directly related to the analysis of Duc's and Bouazizi's self-immolations in later sections.

Jasper and Poletta discuss the construction of "collective identity", and the challenges and implications the notion poses to social movement theory, in a literature review on the concept of collective identity. Jasper and Poletta have defined collective identity as "an individual's cognitive, moral, and emotional connection with a broader community, category, practice, or institution" (p.285). Collective identity is thus representing a binding force to a community or social movement: produced by activists and their supporters, collective identity is "distinct from [the] personal identities" of protesters (ibid.). Although "outsiders may establish collective identities", the group that is subject to this collective identity will have to agree with the image-formation to accept it (ibid.). Jasper and Poletta compare collective identity with two other notions, "interest" and

"ideology," and argue that, in contrast to "interest," collective identity does not suggest rationally computing choices and, and in contrary to "ideology," collective identity does not imply negativity towards one's own group (ibid.). Regarding the emanation of social movements, new social movement theorists argued that "class location" did not necessarily imply support; reasons for participation would be "recognition for new identities and lifestyles" (ibid. 286). With regard to underlying reasons for collective action, scholars have pointed out macro-level societal developments, e.g., industrialization, urbanization, which would indicate how some collective identities may have been explanations of both excluding and mobilizing actors (ibid. 287). Others consider networks to be the solution to the questions how "mobilizing identities are constituted (ibid. p.289). Similarities in networks, e.g., in "networks of patronage," "urban residence" or "political affiliation" would arguably suggest that collective identities are fluid and not constituted on determined categories, such as "race, class, gender or nation" (Gould, 1998, 1995; Mische 1996 cited in Jasper & Poletta, 2001, p.288). "Belief systems" or "culture" as the foundation of a collective identity would additionally assist in motivating people to organize (Jasper & Poletta, 2001, p.288-289).

According to Jasper and Poletta, the emergence of a movement should implicate rendering the movement identity compatible with the collective identity; thus, the "collective identity [should be] based on shared membership in a movement" (ibid. 289). Although Jasper and Poletta discuss several authors providing different methods of harmonizing the collective identity and the movement identity (ibid., 289-292), this paper will focus on their discussion on the importance of "framing" to the construction of collective identities, particularly in relation to Benford and Snow's (2000) interpretation of "framing" of social movements. Benford and Snow define "framing" as "an active, processual phenomenon that implies agency and contention at the level of reality construction"; movement actors employ framing to attach meaning to certain events that they consider to be crucial to their movement (2000, pp.613-614). In this way, framing can be of instrumental value in three ways: "diagnostic framing" may assist in appointing the "victim" of the issue or institution that the movement contests, "prognostic framing" may offer answers to societal problems which the movement

challenges and "motivational framing" may promote collective action amongst supporters and possible sympathizers of the movement (ibid. pp.615-618). Framing is, according to Jasper and Poletta, tightly connected to collective identities, as activists use the concept "to strategically 'frame' identities (...) [in order to recruit] participants" (2001, p.291). In line with Benford and Snow's three methods of framing, frames could be related to collective identity. Firstly, frames would be able to designate the unjust circumstances that appear in society, promoting collective action while shaping collective identity (Jasper & Poletta, 2001, p.291). Secondly, frames would serve to create identities to both the contenders and defenders of an injustice by creating distinct identities (Gamson 1988, 1992, also Hunt & Benford 1994, Hunt et al 1994, Klandermans 1997 in Jasper & Poletta, 2001, p.291). Lastly, through framing, autonomous collective identities may be taken up by social movements (Jasper & Poletta, 2001, p.291). With these theories in mind, this paper will analyze of the self-immolations of Duc and Bouazizi in order to relate them to these theories in the conclusion.

Figure 1: Malcolm Browne. (1963). *The Burning Monk* [Photograph].

THE BURNING MONK: THE SELF-IMMOLATION
PROTEST OF THICH QUANG DUC
On June 11 1963, Thich Quang Duc, seated at the intersection of Le Van Duyet Street after having marched through Saigon with 200 Buddhist monks, was covered in gasoline and fuel by two other Buddhist monks (Murray Yang, 2011, p.1). Then, Duc set himself on fire, "[a]s dumbfounded police and fire personnel gaped at the horrific scene" (ibid.). One picture of this protest-suicide (see fig. 1), caught on camera by photographer Malcolm Browne, circulated

in media all over the world. The picture generated media attention for the cause of the Buddhist monks, who, since May 1963, had been protesting against the limitations that the Catholic Vietnamese president Diem, positioned by the United States, had put on the Buddhist religion (ibid., p.2). Since president Diem adopted legislation to restrict the practice of Buddhism in Vietnam, the police had intimidated Buddhist monks continuously. For example, when Buddhist monks peacefully protested on Buddha's birthday, the soldiers sent by Diem killed and wounded many(ibid.). Throughout May, the monks had been demonstrating continuously, but since the protests were seen as futile, both the global media and the police paid little to no attention to them (ibid.; Skow & Dionisopoulos, 1997, p.393).

However, Duc's protest proved them wrong as self-immolation as a form of protest was now employed by protesters all over the world (Tilly in Biggs, 2005, p.9). According to Biggs, "[h]is act was an unexpected combination of modern technology and religious tradition" (ibid.). Biggs considers technology to be both the attainability of gasoline, the highly flammable liquid which prevents direct police intervention when enlightened, as well as the technology of photography, which facilitated the spreading of the event and thus the recognition of the Vietnamese Buddhists' struggles (ibid., pp.9-10). With regard to religious tradition, Biggs explains that self-immolation was traditional practice in Mahayana Buddhism, which regards suicide through self-immolation as "the ultimate ascetic technique (ibid., p.10). Mainstream Buddhism, however, opposes suicide, which rendered this protest-method controversial amongst the Buddhist protesters (ibid., pp.10-11). Thich Duc Nghiep, a monk managing foreign public relations, however, convinced the other protesters, and carefully orchestrated the event: several monks prevented the fire-brigade to reach Duc, and multiple journalists were informed (ibid.).

The public suicide protest resulted in a considerable increase in reporting on the violent oppression of Buddhists by the Vietnamese government, and moreover caused imitations of similar protests in the United States, appropriating the self-immolation in order to protest the Vietnam War. Skow and Dionisopoulos cite several newspaper articles dealing with the Catholic minority's oppression over the Buddhist majority: "domination"

and "complete control" were terms often employed by for example the Christian Century and the oppression was also stressed by the New York Times (1997, p.398). Also regarding government violence against anti-Diem protesters, the reporting increased and usually blamed the Diem regime for the violence, arguing that the Vietnamese government was abusing its power against peaceful demonstrators (ibid., p.399). The newspaper Nation, for example, is quoted by Skow and Dionisopoulos: "growing Buddhist restiveness under Diem's discriminatory measures has resulted in demonstrations, riots and increasingly savage assaults on the Buddhists by the government" (ibid.). Hence, Nation stresses that there are still confrontations between the Buddhists and the still discriminatory government – not much has changed in the government's policies. Moreover, the newspapers increasingly seemed to imply that the Diem government was incapable to run Vietnam: not only was he condemned for not taking responsibility, but also because for dividing Buddhists when his country should fight united against the Northern communists (ibid.).

Duc's self-immolation was also linked to the anti-Vietnam movement, since many protesters followed the burning monk suicide as was displayed on Browne's photo (Biggs, 2008, p.23). Duc's self-immolation was not only imitated in the United States to sympathize with the suppressed Buddhists and to denounce the Vietnam War, but in the Soviet Union, Japan, Malaysia and Vietnam as well (Biggs, 2005, p.14). These self-immolations developed a consensus amongst American citizens that the Vietnam War was senseless and the Diem regime was aggressive and not representative to its citizens (ibid., p.43). Nevertheless, Briggs holds that the self-immolation has to be strategically designed in order to reach maximum effect; although self-immolation is shocking and striking, if this essentially individual form of protesting is not seen by many people and the media, the impact for the movement may remain small (2008, p.26).

Figure 2: Photographer Unknown (2010). Mohamed Bouazizi. self-immolation.

THE BURNING SHOPKEEPER: THE SELF-IMMOLATION PROTEST OF MOHAMED BOUAZIZI

On 17 December 2010, Mohamed Bouazizi poured petrol over his body and set himself on fire in front of a government building in Sidi Bouzid (Al Jazeera Tunisian Protester, 2011, 5 January), a small city 200 kilometres from the Tunisian capital, Tunis (Bilal, Al Jazeera 2011, 27 December). Bouazizi, 26 years old and "an unemployed college graduate" sold fruits and vegetables in order to make a living in times of high unemployment in Tunisia, committed the suicide after his wares were taken by the police because he lacked a vending permit; afterwards, the police allegedly abused him (Al Jazeera Tunisian Protester, 2011, 5 January). Bouazizi sought compensation for his confiscated wares and the harassment at the municipality of Sidi Bouzid, but failed; then, he set himself alight in front of the same municipality building (Malika Bilal, Al Jazeera, 2011, 27 December). The photo (see fig. 2) of Bouazizi's self-immolation shows him running around on the street, completely ablaze. Bouazizi's protest-suicide symbolizes the Tunisian resentment "over living standards, police violence, rampant unemployment, and a lack of human rights" in the country (Rifai, Al Jazeera, 2011, 23 January). Immediately after Bouazizi, suffering from third-degree burns, was transported to a hospital the Tunisian capital, demonstrations in

Sidi Bouzid began (ibid.). In the hospital, Bouazizi died from his burns on January 4 2011 (Al Jazeera, Tunisian Protester, 2011, January 5).

The self-immolation of Mohamed Bouazizi, and especially its aftermath, has been extensively covered by the press. Al Jazeera first mentioned the self-immolation in relation to the local protests – in the Bouazizi's hometown Sidi Bouzid – following the protest-suicide (Al Jazeera Riots Reported, 2010, 20 December). Although there had been a similar self-immolation before in uprising Tunisia, Bouazizi's protest-suicide became a global news-event; Al Jazeera argued how "the key difference in Sidi Bouzid was that locals fought to get the news of what was happening out, and succeeded" (Ryan, Al Jazeera, 2011, 26 January). From the day that Bouazizi set himself ablaze, his family members posted a video of the following protests on the internet (ibid.). Demonstrations and marches were met with police violence; the protesters offered an aggressive response in return, "setting fire to tires and attacking offices of the ruling party" (Al Jazeera, Tunisian Protester, 2011, 5 January). Social networks were used not only to distribute videos showing demonstrations in different cities, but also to communicate with other protesters; while the protests spread to other cities, the government led by Zine El Abdine Ben Ali employed all means to silence the protesters in the real and virtual world – power and internet outages, arrests and violence were used against the activists (Ryan, Al Jazeera, 2011, 26 January). Outsider hacker group Anonymous, however, assisted the Tunisian protesters in resisting the government, by closing some government websites (Al Jazeera, Tunisian Protester, 2011, 5 January). The protesters mobilized in the regional departments of the Tunisian General Labour Union, lawyers, students and "[g]rassroots members of some opposition movements" were organizing the protest movement, but oppositional parties were not participating in the demonstrations (Yasmine Ryan, Al Jazeera, 2011, 26 January). Bouazizi's death on January 4 was not the only bloodshed due to protests. In the cities Kasserine and Thala, "security forces" kill several protesters, whose bodies were photographed by survivors and distributed over social media (Ryan, Al Jazeera, 2011, 27 December). People who were first not officially partaking in the movement marched to Tunis on January 13 in protest

(ibid.). The same night, president Ben Ali summoned to end the violence and killings that the protests had caused – Al Jazeera mentions that, ironically, the state killed more protesters immediately after his speech (ibid.). The next day, Ben Ali sought to escape to Paris with his wife, "as crucial members of his own security personnel turned against him" (ibid.). Paris rejected his stay, so he escaped to Saudi Arabia instead (ibid.). After Ben Ali's flight, the prime minister Ghannouchi proclaims a new government on January 17, but since the many positions are appointed to Ben Ali sympathizers, protest ensue the next day (Rifai, Al Jazeera, 2011, January 23). Over the course of January, the government slowly falls apart as ministers resign in response to the continuing protests against the newly established government; Ghannouchi announces a new interim government that has no ties to Ben Ali on January 26 (ibid.). In October 2011, Tunisia held its first democratic elections, and the tolerant Islamist party Ennahdha won the majority of the votes (Ryan, Al Jazeera, 2011, 27 December).

Although Bouazizi's self-immolation has not been analysed from an academic perspective, some general theory on self-immolation can be applied to his suicide. Romm, Combs and Klein (2008) maintain that self-immolation serve as "a means to sway sympathizers to a cause by evoking a powerful response" (p.991). In this way, self-immolation is comparable to Durkheim's notion of "altruistic suicide," meaning that the regulative forces of society are so strong that suicide is seen as the only solution out (ibid.). Bouazizi's protest self-killing may seem like a personal, independent act to outsiders, but Biggs (2008), following Romm, Combs and Klein, argues that public self-immolation asks for a response from the audience: if the audience fails to react to the self-immolation, the act will be forgotten (p.27). Similarly, Bouazizi's self-immolation was most likely motivated by his powerless feeling regarding the corrupt Tunisian society; setting himself on fire in front of a government building represented this powerlessness. The public aspect of his suicide was simultaneously framed by his 'responding' family members as a call for arms against the corruption and unemployment the government maintained at the expense of the rest of society.

CONCLUSION

The self-immolations of Duc and Bouazizi share many commonalities: both men protested an oppressive regime with their self-immolation in a public way, with Duc condemning the religious intolerance for his country, while Bouazizi attacked his government's corruption and the large unemployment in Tunisia (Ryan, Al Jazeera, 2011, 26 January; Biggs, 2005, pp.9-10). Moreover, their self-immolations have been appropriated by activists groups for protests, responding to their act and rendering Duc's and Bouazizi's suicides an example of Durkheimian powerlessness towards their repressive government (Romm, Combs, & Klein, 2008, p.27). However, some differences can also be found in their public suicides. Bouazizi's 'running' self-immolation, as displayed in the photos, shows a wilder, more helpless aesthetic than Duc's peaceful, forbearing self-immolation; this difference might be attributed to Duc's Buddhist background, but also to the fact that Duc's self-immolation was planned (Tilly in Biggs, 2005, p.9).

The creation of Jasper and Poletta's collective identity occurred simultaneously with Benford and Snow's framing of the Duc and Bouazizi's self-immolations. Both suicides shaped a collective identity amongst protesters, as Duc and Bouazizi both reacted to larger developing processes they could not control (Jasper & Poletta, 2001, p.287): Duc reacted to the Cold War, which had rendered the United States to position the Catholic Diem as president, and Bouazizi's self-immolation was partly a response to Tunisia's unemployment due to recession (Ryan, Al Jazeera, 2011, 26 January; Biggs, 2005, pp.9-10). However, with regard to affiliation with the protests in creating collective identity, the foundations differ, most likely because their backgrounds have been framed differently. Duc's action was framed as a religious, Buddhist protest against his government by both the Vietnamese Buddhist monks as well as the international press, rendering "culture" or "belief system" the basis for the protesters' collective identity (ibid., 2001, p.288-289). His peaceful sitting position during his self-immolation was exactly in line with the Buddhist values of tolerance and peace. Since the oppression of the Vietnamese government was directed against Buddhists, other Vietnamese Buddhists could relate to Duc's suicide (Murray Yang, 2011, pp.1-2). The Tunisian protesters identified collectively with Bouazizi, not because

of his religious background, but rather due to his economic problems and his clashes with the police. Bouazizi was framed as a poor graduate who made ends meet by being a shopkeeper, even though he was continuously harassed by the police; his struggles were experienced by many other Tunisian citizens (Rifai, Al Jazeera, 2011, 23 January). Their self-immolations have thus been framed in two ways: through "diagnostical framing" the victims of societal problems in these countries were represented, and through "motivational framing", citizens were called for action against repression, (ibid., pp.615-618). Bouazizi and Duc's self-immolation could not have had such an effect without the protesters efforts to bring them to the public (Ryan, Al Jazeera, 2011, 26 January; Biggs, 2005, pp.9-10); as Biggs has argued, self-immolation needs a response from the audience – in this case, through framing and more protests – in order to lead to change (p.27).

Duc and Bouazizi have inspired a whole country to revolt due to their essentially individual protests. However, their actions represented the oppression of many, who through the creation of collective identity and frames, responded as a whole, rendering their self-immolation a public act in the end.

BIBLIOGRAPHY

Al Jazeera [author not named] (2011, January 5). *Tunisian Protester Dies of Burns*. Retrieved from: http://www.aljazeera.com/news/africa/2011/01/201115101926215588.html

Al Jazeera [author not named] (2010, December 20). *Riots Reported in Tunisian City*. Retrieved from: http://www.aljazeera.com/news/africa/2010/12/2010122063745828931.html

Benford, R. D. & Snow, D. A. (2000). Framing Processes and Social Movements: An Overview and Assessment, Annual Review of Sociology, 26, 611-639.

Biggs, M. (2005). Dying Without Killing: Self-Immolations, 1963-2002. In D. Gambetta (Ed.), Making Sense of Suicide Missions (pp.173-208). Oxford University Press.

Biggs, M. (2008). Dying for a Cause – Alone?, Contexts, 7(22), 22-27.

Bilal, M. (2011, December 27). The Arab Awakening. *Al Jazeera*. Retrieved from: http://wwwaljazeera.com/indepth/spotlight/aljazeeratop102011/2011/12/2011122619534967270.html

Browne, M. (1963). The Burning Monk [Photograph]. Retrieved from: http://www.worldsfamousphotos.com/2007/04/27/burning-monk-the-self-immolation-1963/

Murray Yang, M. (2011). Still Burning: Self-Immolation as Photographic Protest, Quarterly Journal of Speech, 97(1), 1-25.

Photographer Unknown (2010). Mohamed Bouazizi, self-immolation. Retrieved from: http://johnbatchelorshow.com/schedules/2011/01/saturday-29-sunday-30-january-2011/

Polletta, S. & Jasper, J. M. (2001). Collective Identity and Social Movements. Annual Review of Sociology, 27, 283-305.

Rifai, R. (2011, 23 January). Timeline: Tunisia's Uprising. *Al Jazeera*. Retrieved from: http://www.aljazeera.com/indepth/spotlight/tunisia/2011/01/201114142223827361.html

Romm, S., Combs, H. & Klein, M. B. (2008). Self-Immolation: Cause and Culture. Journal of Burn Care & Research, 29(6), 988-993.

Ryan, Y. (2011, December 27). Tunisia: The Uprising That Started It All. *Al Jazeera*. Retrieved from: http://www.aljazeera.com/indepth/spotlight/aljazeeratop102011/2011/12/20111126205027882603.html

Ryan, Y. (2011, January 26). How Tunisia's Revolution Began. *Al Jazeera*. Retrieved from: http://www.aljazeera.com/indepth/features/2011/01/2011126121815985483.html

Skow, L. M. & Dionisopoulos, G. N. (1997). A Struggle to Contextualize Photographic Images: American Print Media and the "Burning Monk," Communication Quarterly, 45(4), 393-409.