Mindfulness & Acceptance:
A path towards a Values Driven Life for individuals living with HIV

Leonardo Aguilar, MACP
Program Coordinator
Medical Case Manager
Registered Mental Health Counselor Intern
Southeast Aids Education And Training Center
Comprehensive AIDS Program
Presenter & Acknowledgements

Leonardo Aguilar, MACP

This speaker does not have any financial relationships with commercial entities to disclose.
LEARNING OBJECTIVES

1. To define mindfulness and acceptance and their role in enhancing mental health wellness

2. To provide Acceptance and Commitment Therapy techniques that increase Psychological flexibility in Latinx individuals who are HIV positive.

3. To review research on mindfulness and its effectiveness on the Latinx community

4. To analyze the case study of a Latinx patient living with HIV where mindfulness and acceptance strategies are utilized
OBJECTIVE 1

To define Mindfulness and Acceptance and their role in enhancing mental health wellness
MINDFULNESS BY DEFINITION

“The practice of maintaining a nonjudgmental state of heightened or complete awareness of one's thoughts, emotions, or experiences on a moment-to-moment basis”

-Merriam-Webster Dictionary
OBJECTIVE 1: TO DEFINE MINDFULNESS AND ACCEPTANCE AND THEIR ROLE IN ENHANCING MENTAL HEALTH WELLNESS

ACCEPTANCE CAN BE DEFINED AS

“The voluntary adoption of an intentionally open, receptive, flexible, and nonjudgmental posture with respect to moment-to-moment experience”

(Hayes, S. C., Strosahl, K. D., & Wilson, K. G. 2012)
OBJECTIVE 1: TO DEFINE MINDFULNESS AND ACCEPTANCE AND THEIR ROLE IN ENHANCING MENTAL HEALTH WELLNESS

Fig 9.2 Get out of your mind and into your life
Steven C Hayes
OBJECTIVE 1: TO DEFINE MINDFULNESS AND ACCEPTANCE AND THEIR ROLE IN ENHANCING MENTAL HEALTH WELLNESS

This is how I feel today!

❤️❤️
OBJECTIVE 1: TO DEFINE MINDFULNESS AND ACCEPTANCE AND THEIR ROLE IN ENHANCING MENTAL HEALTH WELLNESS

Bodily sensations

- Tight
- Loose
- Achy
- Sore
- Light
- Heavy
- Constricted
- Relaxed
- Comfortable
- Painful
- Warm
- Cold
- Flushed

Fig 7.1 your body. Get out of your mind and into your life
Steven C Hayes
OBJECTIVE 1: TO DEFINE MINDFULNESS AND ACCEPTANCE AND THEIR ROLE IN ENHANCING MENTAL HEALTH WELLNESS

Memories & Images
OBJECTIVE 1: TO DEFINE MINDFULNESS AND ACCEPTANCE AND THEIR ROLE IN ENHANCING MENTAL HEALTH WELLNESS


http://www.contemporarypsychotherapy.org/vol-4-no-1-spring-2012/acceptance-and-commitment-therapy/
OBJECTIVE 2

To provide Acceptance and Commitment Therapy techniques that increase Psychological flexibility in Latinx individuals who are HIV positive.
OBJECTIVE 2: To provide Acceptance and Commitment Therapy techniques that increase Psychological flexibility in Latinx individuals who are HIV positive.

HIV and Hispanics/Latinos

OF THE 40,324 HIV DIAGNOSES IN THE US AND 6 DEPENDENT AREAS IN 2016:*

10,292 (26%) WERE AMONG HISPANICS/LATINOS**
8,999 (22%) WERE AMONG HISPANIC/LATINO MEN
1,277 (3%) WERE AMONG HISPANIC WOMEN/LATINAS

HIV Diagnoses Among the Most-Affected Subpopulations in the US and 6 Dependent Areas, 2016

OBJECTIVE 2: To provide Acceptance and Commitment Therapy techniques that increase Psychological flexibility in Latinx individuals who are HIV positive.

From 2011 to 2015, HIV diagnoses remained stable among all Hispanics/Latinos.

- HIV diagnoses fell 14% among Hispanic women/Latinas.
- HIV diagnoses increased 13% among all Hispanic/Latino gay and bisexual men.
- HIV diagnoses increased 19% among young Hispanic/Latino gay and bisexual men aged 13 - 24.

AT THE END OF 2015, AN ESTIMATED 252,400 HISPANICS/LATINOS HAD HIV.

5 in 6 knew they had the virus.

FOR EVERY 100 HISPANICS/LATINOS WITH HIV IN 2015:
- 59 received some HIV care
- 49 were retained in care
- 50 were virally suppressed

SELF-AS-CONTENT

You as the object of summary verbal categorizations and evaluations.

It is the verbal “I am” self, as in: I am old; I am anxious; I am kind; I am mean; I am unlovable; I am sweet; I am beautiful; and so forth.

The conceptualized self is overflowing with content; this content is the story about you and your life that you’ve been selling to yourself.

It contains all the thoughts, feelings, bodily sensations, memories, and behavioral predispositions that you’ve bought into and integrated into a stable verbal picture of yourself.

If a person is suffering with anxiety, depression or Internalized Stigma, one’s identification with these disorders/experiences is almost certainly part of one’s conceptualized self.
OBJECTIVE 2: To provide Acceptance and Commitment Therapy techniques that increase Psychological flexibility in Latinx individuals who are HIV positive.

**SELF-AS-CONTEXT**

A transcendent sense of self: A consistent perspective from which to observe and accept all changing experiences. *(Often called The Observing Self)*

It is a process, not a thing:
OBJECTIVE 2: To provide Acceptance and Commitment Therapy techniques that increase Psychological flexibility in Latinx individuals who are HIV positive.

TRACKING YOUR THOUGHTS IN TIME

Time Line: ____________________________

| Distant Past | Recent Past | Present | Close Future | Distant Future |

What did you notice about your thoughts? Was there a specific time that kept coming up, or did your thoughts move throughout time? Write a few notes on your experience below:

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
OBJECTIVE 2: To provide Acceptance and Commitment Therapy techniques that increase Psychological flexibility in Latinx individuals who are HIV positive.
OBJECTIVE 2: To provide Acceptance and Commitment Therapy techniques that increase Psychological flexibility in Latinx individuals who are HIV positive.

**DEFUSION**

Looking *At* thoughts, rather than *From* thoughts

Noticing thoughts, rather than being caught up in thoughts

Seeing thoughts as what they *are*, not as what they *seem* to be
DEFUSION

Aim of Defusion is **NOT** to feel better, nor to get rid of unwanted thoughts.

Aim of Defusion **IS** to reduce influence of unhelpful cognitive processes upon behaviour.

To facilitate being psychologically present & engaged in experience;
OBJECTIVE 2: To provide Acceptance and Commitment Therapy techniques that increase Psychological flexibility in Latinx individuals who are HIV positive.

WATCHING BODILY SENSATIONS

Tight
Loose
Achy
Sore
Light
Heavy
Constricted
Relaxed
Comfortable
Painful
Warm
Cold
flushed

Fig 7.1 your body. Get out of your mind and into your life
Steven C Hayes

South FL Southeast
AETC Program
AIDS Education & Training Center
OBJECTIVE 3

To review research on mindfulness and its effectiveness on the Latinx community
OBJECTIVE 3: To review research on mindfulness and its effectiveness on the Latinx community

Culturally adapted CBT (CA-CBT) for Latino women with treatment-resistant PTSD: a pilot study comparing CA-CBT to applied muscle relaxation

Researchers at the Department of Psychiatry in Massachusetts General Hospital examined the therapeutic efficacy of a culturally adapted form of CBT (CA-CBT) for PTSD as compared to applied muscle relaxation (AMR) for female Latino patients with treatment-resistant PTSD. Participants were randomized to receive either CA-CBT (n = 12) or AMR (n = 12), and were assessed before treatment, after treatment, and at a 12-week follow-up.

The treatments were manualized and delivered in the form of group therapy across 14 weekly sessions.

Assessments included a measure of PTSD, anxiety, culturally relevant idioms of distress (nervios and ataque de nervios), and emotion regulation ability.

Devon E. Hinton, Stefan G. Hofmann, Edwin Rivera, Michael W. Otto, Mark H. Pollack,

OBJECTIVE 3: To review research on mindfulness and its effectiveness on the Latinx community

Culturally adapted CBT (CA-CBT) for Latino women with treatment-resistant PTSD: a pilot study comparing CA-CBT to applied muscle relaxation

Patients receiving CA-CBT improved significantly more than in the AMR condition. Effect size estimates showed very large reductions in PTSD symptoms from pretreatment to post treatment in the CA-CBT group (Cohen's d = 2.6) but only modest improvements in the AMR group (0.8).

_These results suggest that CA-CBT can be beneficial for previously treatment-resistant PTSD in Latino women._

Devon E. Hinton, Stefan G. Hofmann, Edwin Rivera, Michael W. Otto, Mark H. Pollack,

OBJECTIVE 3: To review research on mindfulness and its effectiveness on the Latinx community

RESEARCH

Bowling State University conducted a study where a total of 62 HIV-positive patients receiving services from The Empowerment Center and Centro de Salúd Familiar La Fe in El Paso, Texas were recruited for the study.

In order to be eligible for participation, individuals had to be at least 18-years old and identify themselves as Latinx or of Hispanic descent.

OBJECTIVE 3: To review research on mindfulness and its effectiveness on the Latinx community

<table>
<thead>
<tr>
<th>Sample Demographic and Medical Characteristics – Study 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>N(%)</strong></td>
</tr>
<tr>
<td><strong>Total number of participants</strong></td>
</tr>
<tr>
<td><strong>Language of Preference:</strong></td>
</tr>
<tr>
<td>English</td>
</tr>
<tr>
<td>Spanish</td>
</tr>
<tr>
<td><strong>Gender:</strong></td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Transgendered (M to F)</td>
</tr>
<tr>
<td><strong>Country of Origin:</strong></td>
</tr>
<tr>
<td>Mexico</td>
</tr>
<tr>
<td>Puerto Rico</td>
</tr>
<tr>
<td>Cuba</td>
</tr>
<tr>
<td>Other</td>
</tr>
<tr>
<td>Not reported</td>
</tr>
<tr>
<td><strong>Sexual Orientation:</strong></td>
</tr>
<tr>
<td>Straight/Heterosexual</td>
</tr>
<tr>
<td>Mostly Heterosexual/Straight</td>
</tr>
<tr>
<td>Bisexual</td>
</tr>
<tr>
<td>Mostly Gay/Lesbian</td>
</tr>
<tr>
<td>Gay/Lesbian</td>
</tr>
<tr>
<td>Not reported</td>
</tr>
<tr>
<td><strong>Marital Status:</strong></td>
</tr>
<tr>
<td>Single</td>
</tr>
<tr>
<td>Married</td>
</tr>
<tr>
<td>Divorced/Separated</td>
</tr>
<tr>
<td>Widowed</td>
</tr>
<tr>
<td><strong>Employment Status:</strong></td>
</tr>
<tr>
<td>Employed for wages</td>
</tr>
<tr>
<td>Self-employed</td>
</tr>
<tr>
<td>Unemployed</td>
</tr>
</tbody>
</table>

OBJECTIVE 3: To review research on mindfulness and its effectiveness on the Latinx community

Table 1 continued

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Count (Percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homemaker</td>
<td>4 (6.5)</td>
</tr>
<tr>
<td>Retired</td>
<td>6 (9.7)</td>
</tr>
<tr>
<td>Disability/Unable to work</td>
<td>25 (40.3)</td>
</tr>
</tbody>
</table>

**Education:**

<table>
<thead>
<tr>
<th>Education</th>
<th>Count (Percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary school (grades 1 to 8)</td>
<td>11 (17.7)</td>
</tr>
<tr>
<td>Some high school</td>
<td>6 (9.7)</td>
</tr>
<tr>
<td>High school graduate or GED</td>
<td>18 (29)</td>
</tr>
<tr>
<td>Some college or technical school</td>
<td>23 (37.1)</td>
</tr>
<tr>
<td>College graduate/BA</td>
<td>3 (4.8)</td>
</tr>
</tbody>
</table>

**Religion:**

<table>
<thead>
<tr>
<th>Religion</th>
<th>Count (Percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roman Catholic</td>
<td>39 (62.9)</td>
</tr>
<tr>
<td>Christian</td>
<td>13 (21)</td>
</tr>
<tr>
<td>Protestant</td>
<td>1 (1.6)</td>
</tr>
<tr>
<td>Other</td>
<td>6 (9.7)</td>
</tr>
</tbody>
</table>

**Provider speaks Spanish**

<table>
<thead>
<tr>
<th>Speaks Spanish</th>
<th>Count (Percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>20 (32.3)</td>
</tr>
<tr>
<td>No</td>
<td>13 (21)</td>
</tr>
<tr>
<td>Not applicable</td>
<td>29 (46.8)</td>
</tr>
</tbody>
</table>

**HIV status:**

<table>
<thead>
<tr>
<th>Status</th>
<th>Count (Percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detectable</td>
<td>7 (11.3)</td>
</tr>
<tr>
<td>Undetectable</td>
<td>51 (82.3)</td>
</tr>
<tr>
<td>Not reported</td>
<td>4 (6.5)</td>
</tr>
</tbody>
</table>
OBJECTIVE 3: To review research on mindfulness and its effectiveness on the Latinx community

**RESEARCH RESULTS**

Results from correlational analyses indicate that acceptance, mindfulness, and cognitive defusion were associated with better quality of life and reduced HIV stigma.

An examination of the different components of quality of life indicated that acceptance was positively associated with emotional wellbeing/living with HIV, physical well-being, and social wellbeing.

A potential explanation is that a context of acceptance and defusion can promote present moment awareness. When individuals are engaged in the present moment the cognitive load of thoughts may not affect behavior or increase emotional suffering. The present findings also suggest that when individuals are more willing to experience unpleasant thoughts and emotions about HIV as opposed to trying to avoid them, they may be more likely to report higher levels of life satisfaction.

OBJECTIVE 4

To analyze the case study of a Latinx patient living with HIV where mindfulness and acceptance strategies are utilized
OBJECTIVE 4: To analyze the case study of a Latinx patient living with HIV where mindfulness and acceptance strategies are utilized

Initial Psychological Evaluation

Legal Name: JL TA  Preferred Name: he/his
Gender Identity: Male

Date of Evaluation: 3/2/2018

Chief complaint/Presenting problem:
Patient is a 25-year old Colombian white male s/p HIV in 2016, self-referred for a psychological evaluation and subsequent psychiatric services. Through collaboration with the BDI-II and his report, patient endorsed experiencing the following symptoms of depression for the past two weeks: discouragement, feeling like crying, agitation, loss of energy, increased sleep, loss of appetite, concentration difficulty, tiredness/fatigue, loss of interest in sex. Patient reported that he currently sleeps approximately 3 to 5 hours nightly and is tired throughout the day. Patient noted that his depressive symptoms have been increasing over the past two to three years. he stated, “I’m depressed. And I’m stressed. I feel like everything is coming down on me and there ain’t nobody to help me.”

Patient endorsed the following symptoms of anxiety currently: feeling tense, strained, upset, worried, nervous, and confused. he endorsed the following symptoms of anxiety in general: nervous and restless, dissatisfied, unhappy, and feeling turmoil. Patient endorsed the following symptoms of panic: “Racing” heart, Feeling weak, dizzy, Sense of terror, Feeling sweaty, Chest pains, Breathing difficulties, Feeling a loss of control. Patient denied any current perceptual disturbances.

Psychiatric History:
Patient endorsed being hospitalized on four different days at Hospital X as a result of having “ uncontrollable panic attacks” Patient reported that he was prescribed Lorazepam 0.5 mg twice a day and Celexa 10mg. Patient further reported that he received mental health counseling “for a little while” approximately two to three years ago. He reported that she discontinued services when he thought he could manage his stress on his own. Patient denied any mental health outpatient or inpatient services...

Substance abuse history:
Patient endorsed smoking marijuana occasionally but stated that he has stopped because “it makes him feel even more anxious”. Patient denied any inpatient or outpatient substance abuse treatment. Patient denied any other history of drug and/or alcohol abuse.

Medical History:
PCP: Dr P
Problem list: HIV
Allergies: none reported
Labs: CD4: 450 and VL: <20 as of February 2, 2018
Medication: Genova HIV

Adherence: Endorsed partial HIV medication adherence and partial adherence to mental health medications, as he articulated that “I think I am taking too much medicine and i think i can get dependent.”

Transmission Category: HIV was contracted through sexual intercourse with a known male partner.
OBJECTIVE 4: To analyze the case study of a Latinx patient living with HIV where mindfulness and acceptance strategies are utilized.

Nutrition screening:
Self-Perception of Body Size: “very thin”
Unintentional Weight Change: denied
Feeling Ability: Complete independence
Nutritional Risk Factors: lack of appetite

Pain screening:
Patient endorsed pain in chest at onset of panic attacks.

Familial Medical/Psychiatric History:
Patient denied knowledge of any family medical/psychiatric history

Social History:
The patient was born and raised in Colombia. He reported that he was raised with his mother alone. He noted that his childhood was “good but that he wish he had a father.” Patient noted that he migrated to the United States in 2002 with his mom. Patient reported that he maintains a very supportive relationship with his mother has disclosed his HIV status to her. Patient added that he has a hard time maintaining friendships as he “gets very anxious in social settings.” Patient reported that he is currently single and has no immediate plans to be in a romantic relationship.

Trauma History:
Abuse (Emotional - Physical – Sexual): denied

Domestic Violence (Witness or Victim): denied

Neglect: denied

Exploitation (Financial - Sexual - Trafficking): Denied

Educational History:
Patient endorsed completing High School.

Occupational history:
Patient endorsed work history in hospitality. Reported being unemployed for the past six months due to his panic attacks.

Legal history:
Patient denied any arrests or incarceration. Patient reported that he pursued immigration status which he was granted. Patient denied any other legal history.

Mental status:
Orientation: alert and oriented x 4
General Appearance: casually groomed, appropriate to setting
Behavior: reserved, cooperative
Eye Contact: WNL
Motor Function: appropriate and WNL
Psychomotor speed: appropriate and WNL
Speech: WNL
Mood/Affect: anxious/congruent
Thought Process: WNL
Thought Content: congruent with questions asked during interview
Sensory: patient did not appear to respond to internal stimuli at the time of the interview
OBJECTIVE 4: To analyze the case study of a Latinx patient living with HIV where mindfulness and acceptance strategies are utilized

**Perceptual disturbances:** patient did not appear to respond to internal stimuli at the time of the interview

**Insight/Judgment:** limited/limited

**Suicide Risk Assessment:**
- **Past Ideation:** Denied
- **Past Plan:** Denied
- **Past Intent:** Denied*
  - Patient reported that his hospitalization record indicate he verbalized suicidal intent; however he denies said intent.
- **Previous Attempts:** Denied
- **Current Ideation:** Denied
- **Current Plan:** Denied
- **Current Intent:** Denied

**Suicide Risk Factors:**
- **Demographic:** Lives at home with his mother
- **Current Mental State:** Appeared oriented x4
- **Clinical Factors:** Symptoms of depression and anxiety
- **Loss Factors:** chronic illnesses, stress due to unemployment, stress due to immigration status, some family conflict
- **Cognitive Factors:** Endorsed trouble concentrating and forgetfulness
- **Historical Suicide Risk Factors:** No prior suicidal attempts
- **Risk Reduction Suicide Factors:** Patient denied any current ideation, intent, and/or plan. He also endorsed religiosity and his mother.

**Homicide Risk Assessment:**
- **Previous thoughts of harming others:** Denied
- **Previous attempts to harm others:** Denied
- **Current thoughts of harming others:** Denied
- **Current Substance Use:** Denied
- **Current Legal Issues:** Denied
- **Action(s) Taken:** Denied
- **Risk reduction homicidal factors:** Denied

**Psychological Screening Measures:**

<table>
<thead>
<tr>
<th>MEASURE</th>
<th>RAW SCORE</th>
<th>INTERPRETATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>GAD-7</td>
<td>15</td>
<td>Severe Anxiety</td>
</tr>
<tr>
<td>BDI</td>
<td>14</td>
<td>Mild Depression</td>
</tr>
</tbody>
</table>

**Formulation:**

**DSM-5 Diagnostic Impression (Preliminary):**
- F41.1 Generalized Anxiety Disorder
- F41.0 Panic Disorder

**Medical conditions:**
- **B20** HIV Infection
OBJECTIVE 4: To analyze the case study of a Latinx patient living with HIV where mindfulness and acceptance strategies are utilized

FUNERAL EXERCISE FOR VALUES EXPLORATION

THERAPIST: If you’re willing, I’d like us to do an exercise that might have some very interesting and surprising results, or it may simply help get you in touch with something you’ve known all along. Let’s just see what happens.

CLIENT: OK, I’m willing to give it a try.

THERAPIST: This is what I call the What Do You Want Your Life to Stand For? exercise. I want you to close your eyes and relax for a few minutes and put all the other stuff we’ve been talking about out of your mind.

(I assist client with relaxation for 2–3 minutes.)

Now, I want you to imagine that through some twist of fate you have died, but you are able to attend your funeral in spirit. You are watching and listening to the eulogies offered by your mom, your relatives, your friends, the people you have worked with, and so on. Imagine just being in that situation, and get yourself into the room emotionally.

(Pauses)

OK, now I want you to visualize what you would like these people who were part of your life to remember you for. What would you like your mom to say about you as a son? Have her say that. Really be bold here! Let her say exactly what you would most want her to say if you had totally free choice about what that would be.

(I Pause and allow the client to speak.)

you mentioned you want to have children in the future, so let’s assume you did, what would you like your children to remember you for as a father? Again, don’t hold back. If you could have them say anything, what would it be? Even if you have not actually lived up to what you would want, let them say it as you would most want it to be.

(I Pause and allow the client to speak.)
Now what would you like your friends to say about you as a friend. What would you like to be remembered for by your friends? Let them say all these things. and don’t withhold anything! Have it be said as you would most want it. And just make a mental note of these things as you hear them spoken.

[I may may continue with this until it is quite clear the client has entered into the exercise. Then I help the client to reorient back to the session, I say “Just picture what the room will look like when you come back and when you are ready just open your eyes.”]

CLIENT: That was weird... trying to imagine being dead but being there. Sometimes in the past I’ve thought about suddenly dying. Usually I imagine how blown-out everyone would be—how tough it would be on my family!

THERAPIST: So, projecting yourself to the point of dying feels like pretty serious business.

CLIENT: Yeah, it seems to kind of dwarf all my problems! At the same time, I get really down on myself because it seems like my life is wasting away.

THERAPIST: I’m curious... when you heard the eulogies, what stood out in the way of things you wanted to be remembered for?

CLIENT: When My mom said that I had been a great son who cared for her and his family and made a difference in people's lives.

My friend the guy I've probably known the longest, said I had been there for him when he needed me the most, when he quit drinking. This actually happened 2 years ago.
OBJECTIVE 4: To analyze the case study of a Latinx patient living with HIV where mindfulness and acceptance strategies are utilized

FUNERAL EXERCISE FOR VALUES EXPLORATION

THERAPIST: Did anyone stand up and say “Here I remember (JL TA)—he spent his entire life trying to prove he was no fluke”?

CLIENT: (Laughs.) No.

THERAPIST: Did anyone say “Here lies JL TA—he made over $2 million in his career and because of that he is eternally worthy”?

CLIENT: (Laughs.) No. What are you trying to tell me?

THERAPIST: Nothing really... just notice that a lot of things you berate yourself about and struggle with have no connection to what you want to be remembered for. It just seems that you’ve squeezed yourself mercilessly in the name of things you may not even value.

CLIENT: That’s pretty scary if that’s true!

THERAPIST: Yes, it is, and it’s not about what’s true! It’s about what works and what doesn’t. In a variation on this exercise,

This exercise can reveal wide discrepancies between the client’s values and his current actions.

Converted excerpt from (Hayes, S. C., Strosahl, K. D., & Wilson, K. G. 2012)
QUESTIONS
References


Devon E. Hinton, Stefan G. Hofmann, Edwin Rivera, Michael W. Otto, Mark H. Pollack,
References


