Implications of Behavioral Theory for Developing Persuasive Communications

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Despite rumors to the contrary, there is very good evidence that, when properly measured, intentions are very good predictors of behavior.

This is as true for intentions to smoke (or quit smoking) cigarettes or marijuana, as it is for intentions to take a screening test, to use a condom, or to exercise.
It’s important to recognize however, that people do not, or can not, always act on their intentions.
An Integrated Model

- Environmental constraints
- Intention
- Skills / Ability
- Behavior
Clearly, very different communications (or interventions) are necessary for people who have formed the appropriate intention but are not acting upon it, than for people who do not hold the intention.
An Integrated Model

**Background Influence**
- Past Behavior
- Demo-graphics & Culture
- Attitudes Towards Targets (stereotypes & stigma)
- Personality, Moods, & Emotions
- Other Individual Difference Variables (perceived risk)
- Intervention Exposure Media Exposure

**Behavioral Beliefs & Outcome Evaluations**
- Behavioral Beliefs & Outcome Evaluations
- Normative Beliefs & Motivation to Comply
- Control Beliefs & Perceived Power

**Attitudes**
- Attitudes

**Norms**
- Norms

**Intention**
- Intention

**Environment factors**
- Environmental factors

**Self- Efficacy (PBC)**
- Self- Efficacy (PBC)

**Skills & Abilities**
- Skills & Abilities

**Behavior**
- Behavior
Figure 3 - An integrative model predicting intentions to use marijuana: Findings from an adolescent sample of ever users

Behavioral beliefs and outcome evaluations → Attitude

Normative beliefs → Subjective norm

Intention

R = .77

\[ \text{Behavioral beliefs and outcome evaluations} \rightarrow \text{Attitude} \]

\[ \text{Normative beliefs} \rightarrow \text{Subjective norm} \]

\[ R = .77 \]

\[ \text{Self-Efficacy} \rightarrow \text{Intention} \]

\[ R = .77 \]
Figure 24 - Correlations between Outcome beliefs and the intention to use marijuana almost every month with mean scores for intenders and non-intenders

<table>
<thead>
<tr>
<th>Item Name</th>
<th>Correlation With Intention</th>
<th>Non-Intenders</th>
<th>Intenders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Get away from my problems</td>
<td>.178</td>
<td>-0.87</td>
<td>-0.47#</td>
</tr>
<tr>
<td>Become more creative</td>
<td>.263</td>
<td>-0.86</td>
<td>0.27</td>
</tr>
<tr>
<td>Be like other teens my age</td>
<td>.148</td>
<td>-0.30</td>
<td>0.20#</td>
</tr>
<tr>
<td>Have good time with friends</td>
<td>.437</td>
<td>-0.67</td>
<td>1.27</td>
</tr>
<tr>
<td>Damage my brain</td>
<td>-.071</td>
<td>1.35</td>
<td>1.33#</td>
</tr>
<tr>
<td>Damage my lungs</td>
<td>-.178</td>
<td>1.45</td>
<td>0.80</td>
</tr>
<tr>
<td>Become forgetful</td>
<td>-.214</td>
<td>0.97</td>
<td>0.13</td>
</tr>
<tr>
<td>Feel tired</td>
<td>-.130</td>
<td>1.00</td>
<td>0.60#</td>
</tr>
<tr>
<td>Upset Parents</td>
<td>-.102</td>
<td>1.46</td>
<td>1.27#</td>
</tr>
<tr>
<td>Lose motivation</td>
<td>-.248</td>
<td>1.01</td>
<td>-0.00</td>
</tr>
<tr>
<td>Start avoiding problems</td>
<td>-.132</td>
<td>0.53</td>
<td>-0.00#</td>
</tr>
<tr>
<td>Be a loser</td>
<td>-.365</td>
<td>0.58</td>
<td>-1.20</td>
</tr>
<tr>
<td>Lose friends respect</td>
<td>-.334</td>
<td>0.74</td>
<td>-0.80</td>
</tr>
<tr>
<td>Start using stronger drugs</td>
<td>-.276</td>
<td>0.28</td>
<td>-0.93</td>
</tr>
<tr>
<td>Lose ambition</td>
<td>-.257</td>
<td>0.75</td>
<td>-0.20</td>
</tr>
<tr>
<td>Decrease judgment</td>
<td>-.274</td>
<td>0.99</td>
<td>-0.13</td>
</tr>
</tbody>
</table>

# = no significant difference between means.
Figure 28 - Correlations between the Normative Belief Scale (and the items comprising the scale) with the intention to use marijuana almost every month and the mean scale and individual item scores for both intenders and non-intenders

<table>
<thead>
<tr>
<th>Scale or Item Name</th>
<th>Alpha</th>
<th>Correlation With Intention</th>
<th>Non-Intenders</th>
<th>Intenders</th>
</tr>
</thead>
<tbody>
<tr>
<td>NORMATIVE BELIEFS</td>
<td>.79</td>
<td>.581</td>
<td>-1.53</td>
<td>-0.32</td>
</tr>
<tr>
<td>Friends</td>
<td>.469</td>
<td>-1.37</td>
<td>0.39</td>
<td></td>
</tr>
<tr>
<td>Parents/Caregivers</td>
<td>.387</td>
<td>-1.88</td>
<td>-1.23</td>
<td></td>
</tr>
<tr>
<td>Girl/Boyfriend</td>
<td>.564</td>
<td>-1.43</td>
<td>0.77</td>
<td></td>
</tr>
<tr>
<td>Grandparents</td>
<td>.389</td>
<td>-1.87</td>
<td>-0.92</td>
<td></td>
</tr>
<tr>
<td>Teachers</td>
<td>.393</td>
<td>-1.84</td>
<td>-1.15</td>
<td></td>
</tr>
<tr>
<td>People your age</td>
<td>.312</td>
<td>-0.76</td>
<td>0.23</td>
<td></td>
</tr>
</tbody>
</table>
Figure 29 - Correlations between the Efficacy Beliefs Scale (and the items comprising the scale) with the intention to use marijuana almost every month and the mean scale and individual item scores for both intenders and non-intenders

<table>
<thead>
<tr>
<th>Scale or Item Name</th>
<th>Alpha</th>
<th>Correlation With Intention</th>
<th>Non-Intenders</th>
<th>Intenders</th>
</tr>
</thead>
<tbody>
<tr>
<td>SELF EFFICACY ITEMS .91</td>
<td>-.380</td>
<td>1.44</td>
<td>0.41</td>
<td></td>
</tr>
<tr>
<td>Party where most use</td>
<td>-.328</td>
<td>1.22</td>
<td>0.37</td>
<td></td>
</tr>
<tr>
<td>Close friend suggests</td>
<td>-.352</td>
<td>1.38</td>
<td>0.20</td>
<td></td>
</tr>
<tr>
<td>Feel sad and bored</td>
<td>-.366</td>
<td>1.52</td>
<td>0.13</td>
<td></td>
</tr>
<tr>
<td>Offered on school property</td>
<td>-.218</td>
<td>1.70</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Friends house w/o parents</td>
<td>-.288</td>
<td>1.36</td>
<td>0.33</td>
<td></td>
</tr>
</tbody>
</table>
Figure 10 - Beliefs about using marijuana nearly every month as a function of prior use

- Acting against my moral beliefs
- Have a good time with my friends
Negative Behavioral Beliefs from Unlikely (-2) to Likely (+2)

- Lose Partner
- Lose Friends
- Be Bad Person
- Stronger Drugs
- Bad Role Model
- Upset Parents
- Damage Lungs
- Damage Brain

All HRA, LRA comparisons significantly different, p<.05
All correlate significantly with intention to use regularly
1. Strong correlation with intention/behavior
2. Variance → enough people who do not hold the belief
3. Amendable → can we craft a convincing message?

• Message content: Which belief is a target candidate?
Alternatively, one could try to prime beliefs
A comparison of media priming theory and theory of behavioral prediction: A hypothetical example of effects on attitude.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Predicted attitude</th>
<th>Association of belief A with attitude</th>
<th>Mean Strength of belief A</th>
<th>Association of belief B with attitude</th>
<th>Mean strength of belief B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>-0.8</td>
<td>-.3</td>
<td>1</td>
<td>.5</td>
<td>-1</td>
</tr>
<tr>
<td>Intervention <strong>primes</strong> belief A</td>
<td>-1.0</td>
<td>-.5</td>
<td>1</td>
<td>.5</td>
<td>-1</td>
</tr>
<tr>
<td>Intervention <strong>changes</strong> mean belief A</td>
<td>-1.1</td>
<td>-.3</td>
<td>2</td>
<td>.5</td>
<td>-1</td>
</tr>
<tr>
<td>Intervention <strong>primes</strong> and <strong>changes</strong> mean of belief A</td>
<td>-1.5</td>
<td>-.5</td>
<td>2</td>
<td>.5</td>
<td>-1</td>
</tr>
</tbody>
</table>

**Note.** Beliefs measured on -2 (very unlikely) to +2 (very likely) scale.

**Belief A:** marijuana use damages your brains;
**Belief B:** marijuana use leads to acceptance by friends.

Predicted attitude = (regression weight of belief A * mean of belief A) + (regression weight of belief B * mean of belief B)

Example adapted from Cappella et al. (2000).
Theories of behavioral prediction help us to identify the critical behavioral, normative or control beliefs that have to be addressed if one wishes to reinforce or change any given behavior. But they do not tell us how to reinforce or change those beliefs!!
Figure 2 - An integrative model

- Exposure to message
- Behavioral beliefs
- Normative beliefs
- Efficacy beliefs
- Attitude
- Subjective norm
- Self-Efficacy
- Intention
After more than 60 years of research, we still know very little about the factors that determine whether a person will or will not accept (and yield to) a given piece of information!!!
If we’re going to understand the impact of communication on behavior, it is necessary to distinguish between reception, acceptance, yielding and impact.

Reception: The message said X is Y

Acceptance: I believe X is Y

Yielding: There has been a change in the belief that X is Y

Impact: There has been a change in other beliefs about X
Can we develop theories of acceptance of, and yielding to, the content of persuasive communication?
Can we develop theories of what does (or does not) make a message “effective”?