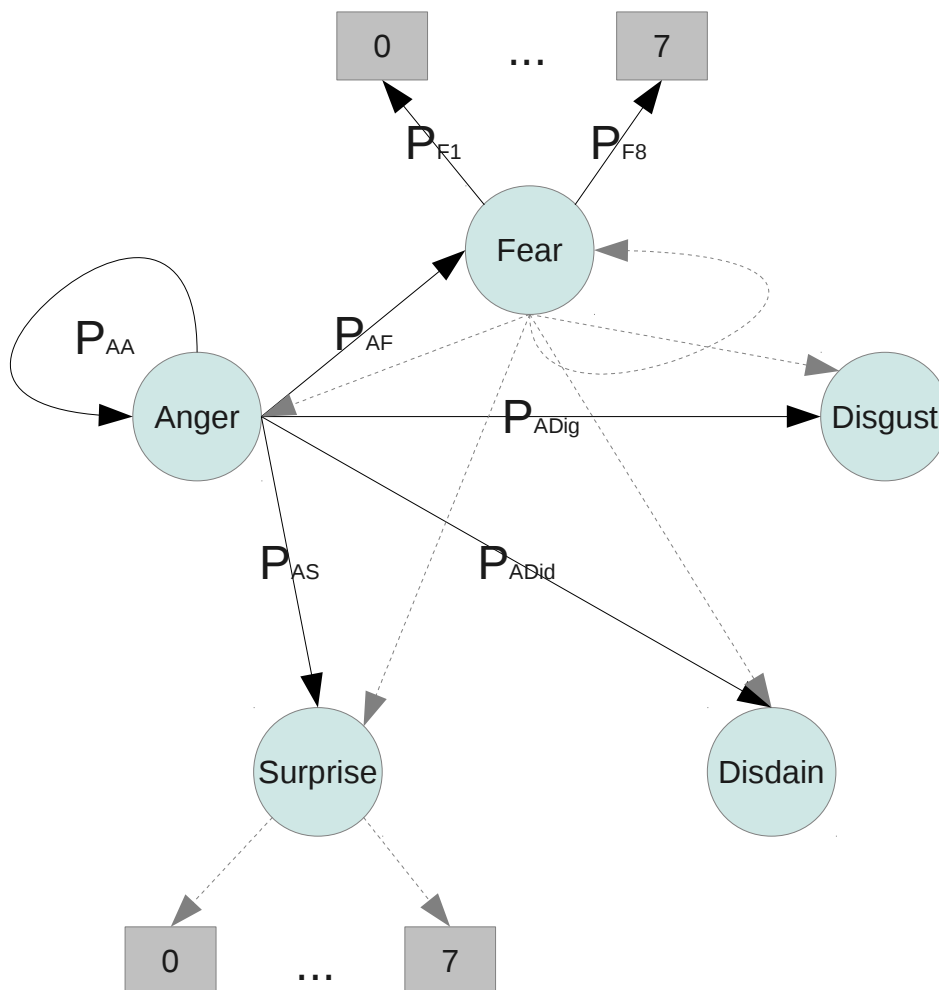


## Encoded Face Features

Eye Aperture	Mouth Opening	Furrow Count	Encoded
large	large	many	7
large	large	few	6
large	small	many	5
large	small	few	4
small	large	many	3
small	large	few	2
small	small	many	1
small	small	few	0

## Hidden Markov Model (schematic)



## Transititon Probabilities

From/To	Anger	Fear	Disgust	Disdain	Surprise
Anger	0.63	0.08	0.13	0.05	0.11
Fear	0.09	0.56	0.14	0.06	0.15
Disgust	0.15	0.07	0.58	0.16	0.04
Disdain	0.09	0.03	0.21	0.58	0.09
Surprise	0.06	0.18	0.23	0.14	0.39

## Emission Probabilities

Emotion/ Face	0	1	2	3	4	5	6	7
Anger	0.15	0.09	0.06	0.07	0.45	0.04	0.05	0.09
Fear	0.06	0.06	0.07	0.09	0.05	0.43	0.04	0.20
Disgust	0.16	0.31	0.08	0.11	0.09	0.09	0.10	0.06
Disdain	0.17	0.16	0.31	0.28	0.02	0.03	0.02	0.01
Surprise	0.01	0.06	0.04	0.10	0.10	0.11	0.12	0.46