Selling Ticket- Bernoulli

Deliberating without money. **The Act**. There is an **Act** (viewing from outside) and not **Action** (viewing from inside). The Act is an evidence. Reasoning: choose option x, that $\max_x U(x) = \sum_y \Pr(y \mid do(x))u(y)$ where U is a utility function, and $u(y)$ the utility of outcome y. Rewritten: $\Pr(y \mid do(x)) = \Pr(x \Rightarrow y)$ read as y if it were x.

Deliberating for money. **The Actions**. **Conditional Actions and Stochastic Policies**. (**Money**). There is an *influence diagram* $E_i \to E_{i+1}$. If there is no i such that $E_i \to E_j$ then E_j is an **exogenous variable** and $E_j \to E_{j+k}$ are conditioned probabilities quantities. (You have to anticipate the exogenous variables). **Work**: You should look for causes that choose exogenous variables. There are many Acts and Actions. We **force a variable or group of variables** X **to take on some specific value** x. The **policies determine** X **compounds to** Z **through a functional relationship** $g(x) = z$ or stochastic $\Pr(x \mid z)$. **We want to identify** $\Pr(y \mid \hat{x}, z)$. $\Pr(y \mid do(X = g(z)))$ is the distribution of Y given policy $do(X = g(z))$.

We condition on Z and

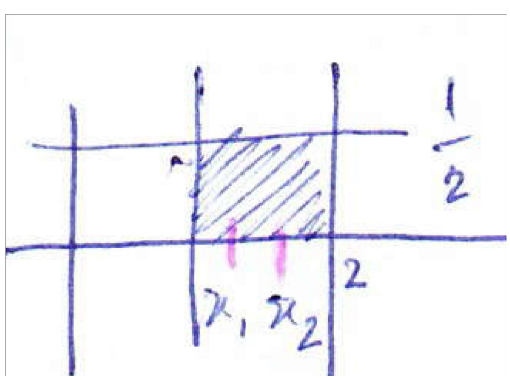
$$\Pr(y \mid do(X = g(z))) = \sum_z \Pr(y \mid do(X = g(z)), z) \Pr(z \mid do(X = g(z))) =$$

$$= \sum_z \Pr(y \mid \hat{x}, z)_{x=g(z)} \Pr(z) = E_z[\Pr(y \mid \hat{x}, z)_{x=g(z)}]$$

We have $\Pr(z \mid do(X = g(z))) = \Pr(z)$

$$\Pr(y)_{\Pr(x|z)} = \sum_x \sum_z \Pr(y \mid \hat{x}, z)_{x=g(z)} \Pr(x \mid z) \Pr(z)$$

The deliberation is by Outcome and Latent Variables: The Rest is by $h_\vartheta(x) \in \{0;1\}$. $\forall x \in \mathbb{R}$. The Assistant **as Distributions of Random Variables** X and Y, with Points s as a Shear in between **Points of a Rectangle** (**Paper and Pen**): $S = \left\{(x,y) : x \in [0,p] \text{ as } X \text{ and } y \in [0, \frac{1}{p}] \text{ as } Y\right\}$ called *Élongation*. The Feasible Set as a **polytope** with 4 vertices in $\mathbb{R}^2$, we have the Plot here and these are: $(x,0), (y,0), (x, \frac{1}{p})(y, \frac{1}{p})$.



The **Segment Sign In** is as: $\Pr[x \leq X \leq y]$ is as $0 \leq x \leq y \leq p$ with value $\frac{1}{p}(y-x)$ at $\begin{bmatrix} 1 & 0 \\ 1 & \frac{1}{p} \end{bmatrix}$ with a second dimension as *Domain Élongation*. The progression is: **Alignement Affiliation and Affichage**. See $\mathbb{N}$ and Amazone Data. Here Alignement as $\lambda_i \downarrow$, Affiliation $\alpha a_{ij}$and Affichage $\alpha_1 a_{ij}$ and $\alpha_2 a_{ij}$. The Patient is eigen: as from Mental Relief as Clozaril. **Selling the Assistant** as from: The **Bernoulli Trial and Distribution**: two possible Outcomes (0;1) as Distribution and *Génératrice:* $X_1,..,X_n$: we say the X is a random variable that has a Bernoulli Distribution

$$f(x \mid p) = \left\{ \begin{array}{c} p^x(1-p)^{1-x} \quad \text{for } x = 0;1 \\ 0 \text{ else} \end{array} \right\}, \text{ with } f(1 \mid p) = p, \text{ and } f(0 \mid p) = 1-p.$$

$E(X) = 1 \cdot p + 0 \cdot (1-p) = p$, $E(X^2) = 1^2 \cdot p + 0^2 \cdot (1-p) = p$, and $VAR(X) = E(X^2) - E(X)^2 = p(1-p)$.–The Ticket is Univariate

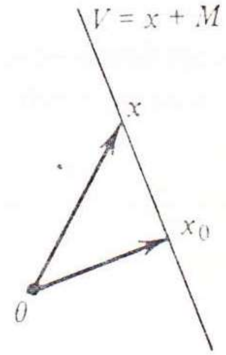
[Bernoulli and Binomial as Discrete Distribution and Normal and Exponential as Continuous Distribution

The **Bernoulli Trials** face $X_1,..,X_n$, *independent and identically distributed (i.i.d)*. infinite sequence of Bernoulli trials with parameter p. (we say fair coin tossed repeately (Pointer), n: **Surjectivity of defective and non defective independent and depended** at a percentage p (exemple $\frac{1}{10}$) in **selling the first Ticket**. The **Geometric Distribution** is defined:

$$f(x \mid 1,p) = \left\{ \begin{array}{c} p(1-p)^x \text{ as } x = 0,1,2,..= \mathbb{N} \\ 0 \text{ otherwise} \end{array} \right\} \text{ with } p \in (0,1).$$

$X_1,X_2,..,X_n$: as Bernoulli Trials as $n \to \infty$ with $k \in \{0;1\}$ with success at p and failure at $(1-p)$. If X_1 denotes the number of failures at probability $1-p$, that occurs before the first success is obtained, then we say X_1 has the **Geometric Distribution** with parameter p. As $j = 2,3,\ldots$ is the number of failures occuring after $j-1$, successes that have been obtained but before the jth success is obtained. (**Country Side Living** as Exponential Argument).

The **Channel** is defined as Point to Scaling. The **Variety** is defined: **Duality** (The Classification Exercise at Upstream) comes as: **The Minimum Norm Problem in as much as The Projection Theorem**. At x_0 we have $g_i(x_j)$ and $m_0 \in M$ as distance incidence x and x_0. The Projection: $X \to$ Part of X finite dimensional by Normal Equations. We are given $M \subset H$ a Hilbert Space. $x \in H$ and the variety is known as $x + M = V \to \exists x_0$ unique in $x + M$ of minimum norn and $x_0 \perp M$.



Minimum norm to a linear variety

This is a Hand for **Secondary Effects** all at once form Assistant. (from Channel variation from Duality as a Minimal Norm Problem: in as much as the Projection Theorem: Brain and Hand: Adjacence in House is a Transit Exchange and Delay by Range. (onto Clozaril). Real Quality as Mouvement: **The Hahn Banach and Separation** theorem introduce a Work function at π_i at $i = k$. For these, $\exists$Þ a Sphere as given around an Origin, and $P \notin$Þ, then $\exists \pi_k$ hyperplanes, with $P < \pi_k <$Þ.

Dialectics and **Duality** are regularly introduced as:

$$\min_{\text{Þ}}(P - \text{Þ}) = \max_{K \text{ to Þ}}(P_k - \pi_K(P)), \ \ \forall \pi : P < \pi_K < \text{Þ}$$