```
[0] p(A,B)
    {A = A, B = B}
    1 --> 1
    p(X1,Y1) :- q(Z1,X1), q(Z1,Y1), q(Y1,W1), q(W1,X1).
    {X1 = A, Y1 = B}

[1] q(Z1,A), q(Z1,B), q(B,W1), q(W1,A)
    {A = A, B = B}
    1 --> 2
    q(d,f).
    {Z1 = d, A = f}

[2] q(d,B), q(B,W1), q(W1,f)
    {A = f, B = B}
    1 --> 2
    q(d,f).
    {B = f}

[3] q(f,W1), q(W1,f)
    {A = f, B = f}
    1 --> 4
    q(f,b).
    {W1 = b}

[4] q(b,f)
    {A = f, B = f}
    1 --> EOP
    failure - backtracking

[3] q(f,W1), q(W1,f)
    {A = f, B = f}
    5 --> EOP
    failure - backtracking

[2] q(d,B), q(B,W1), q(W1,f)
    {A = f, B = B}
    3 --> 3
    q(d,a).
    {B = a}
```

```
[3] q(a,W1), q(W1,f)
    {A = f, B = a}
    1 --> 5
    q(a,b).
    {W1 = b}

[4] q(b,f)
    {A = f, B = a}
    1 --> EOP
    failure - backtracking

[3] q(a,W1), q(W1,f)
    {A = f, B = a}
    6 --> 6
    q(a,c).
    {W1 = c}

[4] q(c,f)
    {A = f, B = a}
    1 --> 7
    q(c,f).
    {}

[5] #
    {A = f, B = a}
-------------------------------------------------
A = f
B = a
```