401

$f(x) \sim z$
$u \sim z$
$f(u) \sim y$ // $ff(x) \sim y$
(401a) $f(f(\delta)) \sim y$.
(401b) $f(f(v)) \sim y$.
(401c) $f(v) \sim y$
(401c.a) $v \sim f(\delta)$.
(401c.b) $v \sim f(w)$
$\delta \sim w$.

401c.b:

$f(x)$	u	$f(u)$	$f(v)$	v	δ
z	z	y	y	$f(w)$	w

mostly LR strategy:

$f(x)$	u	$f(u)$	$f(v)$	v	δ
$f(x)$	$f(x)$	y	y	$f(w)$	w

$f(x)$	u	$f(u)$	$f(v)$	v	δ
$f(x)$	$f(x)$	y	y	$f(\delta)\bullet_1$	δ

$f(x)$	u	$f(u)$	$f(v)$	v	δ
$f(x)$	$f(x)$	$f(v)$	$f(v)$	$f(\delta)$	δ

$f(x)$	u	$f(u)$	$f(f(\delta))$	$f(\delta)\circ$	δ
$f(x)$	$f(x)$	$f(f(\delta))$	$f(f(\delta))$	$f(\delta)$	δ

1)

$f(x)$	$f(x)$	$f(f(x))$	$f(f(\delta))$	$f(\delta)$	δ
$f(x)$	$f(x)$	$f(f(\delta))$	$f(f(\delta))$	$f(\delta)$	δ

$f(\delta)$	$f(\delta)$	$f(f(\delta))\bullet_2$	$f(f(\delta))$	$f(\delta)$	δ
$f(\delta)$	$f(\delta)$	$f(f(\delta))$	$f(f(\delta))$	$f(\delta)$	δ

2)

$f(x)$	$f(\delta)$	$f(f(\delta))\circ$	$f(f(\delta))$	$f(\delta)$	δ
$f(x)$	$f(x)$	$f(f(\delta))$	$f(f(\delta))$	$f(\delta)$	δ

$f(\delta)$	$f(\delta)$	$f(f(\delta))$	$f(f(\delta))$	$f(\delta)$	δ
$f(\delta)$	$f(\delta)\bullet_2$	$f(f(\delta))$	$f(f(\delta))$	$f(\delta)$	δ

$\bullet$: Δ-term enters Γ-term
$\bullet_1$ unification with Δ-term occurring at grey position
$\bullet_2$ unification with Δ-term occurring at Γ-position
$\circ$: propagation

402 – misc

$P(z, z, \delta), \neg P(f(x), f(y), y)$
$P(z, f(z), f(f(\delta))), \neg P(f(x), y, y)$
$P(u, f(z), f(f(\delta))), \neg P(f(x), y, y)$

403 – col change example

$P(f(x), g(x)), \neg P(y, g(a))$

403 – col change example with introduction

$P(f(x), x, z, z), \neg P(\cdot, y, g(y), g(a))$

$f(x)$	x	z	z
$\cdot$	y	$g(y)$	$g(a)$

$f(x)$	x	z	z
$\cdot$	x	$g(x)\triangle_1$	$g(a)$

1)

$f(x)$	x	$g(x)\triangle_2$	$g(x)$
$\cdot$	x	$g(x)$	$g(a)$

$f(a)\bullet_3$	a	$g(a)$	$g(a)$
$\cdot$	a	$g(a)$	$g(a)$

2)

$f(x)$	x	$g(a)$	$g(a)$
$\cdot$	x	$g(x)$	$g(a)$

$f(a)\bullet_3$	a	$g(a)$	$g(a)$
$\cdot$	a	$g(a)$	$g(a)$

$\bullet_3$: unification with Δ-term occurring at Δ-position
$\triangle_1$: introduction of col change
$\triangle_2$: propagation of col change