Index event bias-adjusted - bifactor - per substance model

We re-fit the best theoretical model (bifactor per-substance) using Hunter-slope adjusted summary statistics for smoking and cannabis traits but excluding the traits that we put to DRG in the original model. The SMK and CAN factors still have a correlation >-1, and the bifactor model does not converge (restricting to 1 does not work).

```
bif <- 'G =~ NA*PACKYE + SMKCES + SMKDEP + SMKAGE + SMKINI + ALCCON + ALCFRQ + ALCP + ALCDEP + CANEV + CANFL + CANDEP

SMK =~ NA*PACKYE + SMKCES + SMKDEP + SMKAGE + SMKINI
ALC =~ NA*ALCCON + ALCFRQ + ALCP + ALCDEP
CAN =~ NA*CANEV + CANFL + CANDEP

G ~~ 0*SMK + 0*ALC + 0*CAN

G~~1*G
SMK~~1*SMK
ALC~~1*ALC
CAN~~1*CAN

a>-0.999
SMK~~a*CAN


'

#run the model
fit <- usermodel(ldscOut, estimation = "DWLS", model = bif, CFIcalc = TRUE)
```

CFI = 0.962, SRMR = 0.059

	lhs	op	rhs	Unstand_Est	Unstand_SE	STD_Genotype	STD_Genotype_SE	STD_All	p_value
29	G	=~	PACKYE	0.23299949	0.0109299513307616	0.7690354	0.0356174739016232	0.7690354	7.808330e-101
31	G	=~	SMKCES	0.19008552	0.0082602645355365	0.7064009	0.0306372105066595	0.7064009	3.531827e-117
32	G	=~	SMKDEP	0.21937551	0.0185778569785167	0.6215291	0.0524672213548136	0.6215287	3.530503e-32
30	G	=~	SMKAGE	-0.02879400	0.0064218829251299	-0.1359612	0.0295513938739597	-0.1359612	7.334906e-06
33	G	=~	SMKINI	0.19425192	0.0110751388495887	0.5538351	0.0314499568526634	0.5538351	7.160883e-69
22	G	=~	ALCCON	0.11935813	0.011894074487522	0.4532612	0.0448297266312736	0.4532613	1.068598e-23
24	G	=~	ALCFRQ	-0.09307531	0.0128415139645236	-0.3284450	0.0439120433965871	-0.3284450	4.229665e-13
25	G	=~	ALCP	0.08744048	0.0122444085876153	0.3649012	0.0509671977711277	0.3649012	9.248039e-13
23	G	=~	ALCDEP	0.30413886	0.0204757327597843	0.8143187	0.055119370232332	0.8143189	6.590632e-50
27	G	=~	CANEV	0.06649399	0.0396554316620038	0.1118476	0.0678063318681362	0.1118475	9.358277e-02
28	G	=~	CANFL	0.06020644	0.0189547862994395	0.2954959	0.0943000448154745	0.2954947	1.491570e-03
26	G	=~	CANDEP	0.17972759	0.0238516462408586	0.6407166	0.0855147305248442	0.6407166	4.874833e-14
38	SMK	=~	PACKYE	0.08255965	0.0166370283990318	-0.2549795	0.0526187595759697	-0.2549795	6.962613e-07
40	SMK	=~	SMKCES	0.03350439	0.0131012392141864	-0.1173848	0.0458233905302116	-0.1173848	1.054746e-02
41	SMK	=~	SMKDEP	0.05791775	0.0211637647087752	-0.1514246	0.057188177552892	-0.1514245	6.206884e-03
39	SMK	=~	SMKAGE	-0.05008104	0.00567586589752464	0.2272667	0.0269240422712528	0.2272667	1.109308e-18
42	SMK	=~	SMKINI	-0.14609033	0.0180119331754087	0.4080995	0.0504021271897072	0.4080995	5.030717e-16
3	ALC	=~	ALCCON	0.19873514	0.0122248530205234	0.7612586	0.0455953746140632	0.7612586	2.004039e-59
5	ALC	=~	ALCFRQ	0.24689524	0.0125828504065154	0.8560747	0.0431166850192513	0.8560746	1.011852e-85
6	ALC	=~	ALCP	0.18511338	0.0108388089783839	0.7810757	0.0449639718773433	0.7810756	2.136215e-65
4	ALC	=~	ALCDEP	0.17554696	0.0274280110934391	0.4755854	0.0727386900712563	0.4755855	1.550921e-10
13	CAN	=~	CANEV	0.63886790	0.0543627679506861	1.0787330	0.090955613542	1.0787328	6.901722e-32
14	CAN	=~	CANFL	0.14738751	0.0176236834484212	0.7346138	0.0868274764723904	0.7346109	6.112420e-17
12	CAN	=~	CANDEP	0.08402970	0.0252064918504262	0.3058820	0.0899036288636591	0.3058820	8.571342e-04
36	SMK	~~	CAN	-0.99900005	0.110018069595983	1.0884013	0.123506015468434	1.0884013	1.082491e-19
46	SMKINI	~~	SMKINI	0.05965044	0.00464666429123197	0.5267215	0.0383587764410402	0.5267215	1.013981e-37
44	SMKCES	~~	SMKCES	0.03576110	0.00344847134715611	0.4872186	0.0473064814515137	0.4872186	3.390638e-25
34	PACKYE	~~	PACKYE	0.03066935	0.00568361118528261	0.3435700	0.0611064341357344	0.3435700	6.810408e-08
43	SMKAGE	~~	SMKAGE	0.04201552	0.00258373450761501	0.9298644	0.0570003525415346	0.9298644	1.850092e-59
45	SMKDEP	~~	SMKDEP	0.07349996	0.0171880987970938	0.5907733	0.137376524767257	0.5907727	1.900997e-05
7	ALCCON	~~	ALCCON	0.01514351	0.00271029136796413	0.2150395	0.0391297294306829	0.2150396	2.304812e-08
9	ALCFRQ	~~	ALCFRQ	0.01272864	0.00464437736007569	0.1592602	0.0552347229738453	0.1592602	6.131653e-03
10	ALCP	~~	ALCP	0.01467889	0.00345365231389594	0.2567680	0.0611381924493202	0.2567680	2.135318e-05
8	ALCDEP	~~	ALCDEP	0.01607073	0.0268385773679346	0.1107030	0.192793429254727	0.1107031	5.493115e-01
16	CANEV	~~	CANEV	-0.08394640	0.0664161156206359	-0.1761743	0.186548146652167	-0.1761742	2.062493e-01
15	CANDEP	~~	CANDEP	0.03902413	0.026982413405519	0.4959183	0.344120414834691	0.4959184	1.480986e-01
17	CANFL	~~	CANFL	0.01513672	0.0155109810246848	0.3730325	0.382903114756853	0.3730296	3.291283e-01
35	SMK	~~	ALC	-0.66607848	0.0645087020775208	0.6976611	0.0708074348278775	0.6976611	5.409001e-25
2	ALC	~~	CAN	0.41426955	0.0418675365867463	0.4275080	0.0423923975490041	0.4275080	4.386275e-23
21	G	~~	SMK	0.00000000		0.0000000		0.0000000	NA
18	G	~~	ALC	0.00000000		0.0000000		0.0000000	NA
19	G	~~	CAN	0.00000000		0.0000000		0.0000000	NA
20	G	~~	G	1.00000000		1.0000000		1.0000000	NA
37	SMK	~~	SMK	1.00000000		1.0000000		1.0000000	NA
1	ALC	~~	ALC	1.00000000		1.0000000		1.0000000	NA
11	CAN	~~	CAN	1.00000000		1.0000000		1.0000000	NA