merge(mdat1, mdat2, all=F)

mdat1

	c1	c2	c3
r1	1	1	1
r2	1	2	1
r3	2	1	2
r4	3	2	2

mdat2

	c1	c2	c5
r1	1	1	1
r2	2	1	2
r3	3	2	1
r4	4	2	2

all=F

	c1	c2	c 3	c5
r1	1	1	1	1
r2	2	1	2	2
r3	3	2	2	1

merge(mdat1, mdat2, all=T)

mdat1

	c1	c2	c3
r1	1	1	1
r2	1	2	1
r3	2	1	2
r4	3	2	2

mdat2

	c1	c2	c5
r1	1	1	1
r2	2	1	2
r3	3	2	1
r4	4	2	2

all=T

	c1	c2	c 3	c5
r1	1	1	1	1
r2	1	2	1	NA
r3	2	1	2	2
r4	3	2	2	1
r5	4	2	NA	2

merge(mdat1, mdat2, by="c2")

mdat1

	c1	c2	c3
r1	1	1	1
r2	1	2	1
r3	2	1	2
r4	3	2	2

mdat2

	c1	c2	c 5
r1	1	1	1
r2	2	1	2
r3	3	2	1
r4	4	2	2

by="c2"

c2	c1.x	c3	c1.y	c 5
1	1	1	1	1
			2	2
	2	2	1	1
			2	2
2	1	1	3	1
			4	2
	3	2	3	1
			4	2

merge(mdat1, mdat2, by.x="c1", by.y="c2")

mdat1

	c1	c2	c3
r1	1	1	1
r2	1	2	1
r3	2	1	2
r4	3	2	2

mdat2

	c1	c2	c5
r1	1	1	1
r2	2	1	2
r3	3	2	1
r4	4	2	2

by.x="c1", by.y="c2"

, , , , , , , , , , , , , , , , , , , ,					
	c1	c2	c3	c1.y	c 5
	1	1	1	1	1
				2	2
		2	1	1	1
				2	2
	2	1	2	3	4
				4	2