Reshape vs tidyR

With aggregation

Tidyr doesn't support aggregation on its own, it is designed to work hand in hand with dplyr

mydata

ID	Time	X1	X2
1	1	5	6
1	2	3	5
2	1	6	1
2	2	2	4

cast(md, id ~ variable, mean)

```
a <- group_by(md, id, variable)
a <- summarise(a, value = mean(value))
spread(a, variable, value)
```

id	x1	x2
1	4	5.5
2	4	2.5

cast(md, time ~ variable, mean)

```
b <- group_by(md, time, variable)
b <- summarise(b, value = mean(value))
spread(b, variable, value)
```

time	x1	x2
1	5.5	3.5
2	2.5	4.5

cast(md, id ~ time, mean)

```
c <- group_by(md, id, time)
c <- summarise(c, value = mean(value))
spread(c, time, value)
```

id	time1	time2
1	5.5	4
2	3.5	3

md <- melt(mydata, id = c('id', 'time'))

md <- gather(mydata, variable, value, x1:x2)

id	time	variable	value
1	1	x1	5
1	2	x1	3
2	1	x1	6
2	2	x1	2
1	1	x2	6
1	2	x2	5
2	1	x2	1
2	2	x2	4

Without aggregation

cast(md, id + time ~ variable)

```
spread(md, variable, value)
```

ID	Time	X1	X2
1	1	5	6
1	2	3	5
2	1	6	1
2	2	2	4

cast(md, id + variable ~ time)

```
spread(md, time, value)
```

id	variable	time1	time2
1	x1	5	3
1	x2	6	5
2	x1	6	2
2	x2	1	4

cast(md, id ~ variable + time)

```
f <- unite(md, var_time, variable, time)
spread(f, var_time, value)
```

id	x1 time1	x1 time2	x2 time1	x2 time2
1	5	3	6	5
2	6	2	1	4