```cpp
template<typename T>
class mc_concurrentqueue
{
public:
    mc_concurrentqueue (size_t capacity)
        : queue (capacity)
    {
    }

    bool try_push (const T& v)
    {
        return queue.try_enqueue (v);
    }

    bool try_pop (T& v)
    {
        return queue.try_dequeue (v);
    }

private:
    moodycamel::ConcurrentQueue<T> queue;
};
```