CS3 Valentine's Day Problem

Imagine that we have a room filled with people. It's a very narrow room, so that everyone's lined up in a row. Here's an example of a room:

```
(define room '(- + - + c + - c + - - +))
```

This particular room has two different types of bachelors: there are five men (+) and five women (-). Furthermore, there are two couples (c) standing too.

When two bachelors become interested in each other, they combine to form a couple, which are the c's in the room. The room is *REALLY* narrow, so the only way that + and - can meet is if they're right next to each other. If there's a c standing between a + and a -, they won't see each other because they're not adjacent. (It's a tight squeeze.)

We'd like to write a program that checks to see that, given a room of people, if it's possible for everyone to couple up. For example, we'd like to able to ask Scheme:

```
> (all-matchmaking-possible? '(- + - + c + - c + - - +))
#t

> (all-matchmaking-possible? '(+ - +))
#f

> (all-matchmaking-possible? '(+ + - -))
#f

> (all-matchmaking-possible? '(+ - c - +))
#t
```

Try to write `all-matchmaking-possible?`. You'll probably need to use some higher-order functions. Breaking down this problem into small pieces is a good strategy. Also, it's perfectly appropriate to pair up in groups for this problem.