CH-33 questionnaire

This is part of the additional material of the RA-L paper:
"Interact with me: an Exploratory Study on Interaction Factors for Active Physical Human-Robot Interaction", Yue Hu, Mehdi Benallegue, Gentiane Venture, Eiichi Yoshida

Reference publication of the original questionnaire:
H. Kamide, Y. Mae, K. Kawabe, S. Shigemi, M. Hirose, and T. Arai, "New measurement of psychological safety for humanoid," in ACM/IEEE International Conference on Human-Robot Interaction, 2012, pp. 49–56.

We report here the original Japanese version.
The English translation is partly provided by the publication in English of the author (Kamide Hiroko, marked with KH), and partly by ourselves, as in the publication, not all questions were translated. Please use the translations with caution.

The questions were randomized for each participant.

Each question is rated on a scale of 1 to 7:
1 = 文に完全に同意しません, completely disagree
7 = 文に完全に同意する, completely agree

1. このロボットはこちら側の問いかけに対してきちんと応答してくれそうだ
   (KH) This robot seems to respond appropriately to my question.
   <div align="center">1   2   3   4   5   6   7</div>

2. このロボットは人間の言うことを正確に理解 してくれそうだ
   (KH) This robot seems to be able to understand what humans say.
   <div align="center">1   2   3   4   5   6   7</div>

3. このロボットは,周囲の状況を認識できていると思う
   (KH) I think this robot can recognize its surroundings.
   <div align="center">1   2   3   4   5   6   7</div>

4. このロボットはこちらの指示通りに動いてくれそうだ
   (KH) This robot seems to work according to my instructions.
   <div align="center">1   2   3   4   5   6   7</div>

5. このロボットは,自分が必要とする時に役だってくれそうだ
   This robot seems useful when it is needed.
   <div align="center">1   2   3   4   5   6   7</div>

6. このロボットは,周囲とぶつからずに動けそうだ
   This robot seems to be able to move without colliding with the surroundings.
   <div align="center">1   2   3   4   5   6   7</div>

7. このロボットは事前に行動を予測できるような配慮をしてくれそうだ
This robot seems to be able to predict the behavior in advance.

       1   2   3   4   5   6   7

8. このロボットは,状況に合わせて融通を利かせてくれそうだ
This robot seems to be flexible and can make appropriate decisions according to the situation.

       1   2   3   4   5   6   7

9. このロボットは対象に見合った力加減をしてくれそうだ
This robot seems to be able to adjust the force according to the target.

       1   2   3   4   5   6   7

10. このロボットは信頼できそうだ
This robot seems reliable.

       1   2   3   4   5   6   7

11. このロボットは人間と意志の疎通ができそうだ
This robot seems to be able to communicate its wills with humans.

       1   2   3   4   5   6   7

12. ロボットの見た目は親しみやすい
(KH) I am familiar with this appearance.

       1   2   3   4   5   6   7

13. ロボットの動き方は親しみやすい
(KH) This robot moves in a friendly way.

       1   2   3   4   5   6   7

14. このロボットは自分のことを癒してくれそうだ
(KH) This robot seems to give me mental healing.

       1   2   3   4   5   6   7

15. このロボットとは落ち着いて一緒にいられそうだ
(KH) I think I can have a cozy atmosphere with this robot.

       1   2   3   4   5   6   7

16. ロボットの反応の仕方はやさしい感じがする
The way in which the robot reacts feels nice.

       1   2   3   4   5   6   7

17. ロボットは丸みを帯びたデザインである
The robot has a rounded design.

       1   2   3   4   5   6   7

18. ロボットの色遣いは落ちかない感じがする
The color of the robot doesn't seem to come off.
1 2 3 4 5 6 7

19. ロボットの質感は手触りがよさそうだ
The texture of the robot feels nice at the touch.
1 2 3 4 5 6 7

20. このロボットは誤作動しそうだ
(KH) This robot seems to produce improper operating signals.
1 2 3 4 5 6 7

21. このロボットはすぐに壊れてしまいそうだ
(KH) This robot seems to break down easily.
1 2 3 4 5 6 7

22. このロボットは倒れやすそうだ
(KH) This robot looks like it falls down on the ground easily.
1 2 3 4 5 6 7

23. このロボットは人間の身体に危害を加えそうにない
(KH) This robot doesn't seem to do injury to a human's body.
1 2 3 4 5 6 7

24. このロボットが暴走することはなさそうだ
(KH) This robot doesn't seem to go out of control.
1 2 3 4 5 6 7

25. このロボットは人間の能力以上のことはしなさそうだ
(KH) I do not think this robot can exceed a human's ability.
1 2 3 4 5 6 7

26. このロボットはロボットらしい形状をしている
(KH) Its figure is robot-like.
1 2 3 4 5 6 7

27. ロボットの外見は人間に近い
(KH) Its appearance is similar to that of humans.
1 2 3 4 5 6 7

28. このロボットはロボットらしい動き方をする
(KH) This robot does robot-like motions.
1 2 3 4 5 6 7

29. このロボットはそれ自体がロボットであるということをきちんと意識させてくれる
(KH) It makes me self-conscious that this is a robot.
1 2 3 4 5 6 7

30. このロボットのことをロボットなのに人間だと思ってしまいそうだ
    This robot feels like a human even if it is a robot.
                              1   2   3   4   5   6   7

31. このロボットと接すると,人間を相手にしているような気になりそうだ
    When in contact with this robot, it feels like dealing with a human.
                              1   2   3   4   5   6   7

32. このロボットは人間のように独自の意志持ちそうだ
    (KH) This robot seems to have an independent will like humans.
                              1   2   3   4   5   6   7

33. このロボットは人間のような感情を持っていなさそうだ
    (KH) This robot doesn't seem to have emotions like humans.
                              1   2   3   4   5   6   7

Evaluation method:
The numbers with underline indicate the score of the relative question.
Performance: (1+2+3+4+5+6+7+8+9+10+11)/11
Acceptance: [12+13+14+15+16+17+(8-18)+19]/8
Toughness: (20+21+22)/3
Harmlessness: (23+24+25)/3
Humanness: [(8-26)+27+(8-28)+(8-29)+30+31]/6
Agency: [32+(8-33)]/2